COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF	)	
KENTUCKY UTILITIES COMPANY FOR AN	)	CASE NO. 2025-00113
ADJUSTMENT OF ITS ELECTRIC RATES	)	
AND APPROVAL OF CERTAIN	)	
REGULATORY AND ACCOUNTING	)	
TREATMENTS	)	

In the Matter of:

ELECTRONIC APPLICATION OF	)	
LOUISVILLE GAS AND ELECTRIC	)	CASE NO. 2025-00114
COMPANY FOR AN ADJUSTMENT OF ITS	)	
ELECTRIC AND GAS RATES, AND	)	
APPROVAL OF CERTAIN REGULATORY	)	
AND ACCOUNTING TREATMENTS	)	

<u>**DIRECT TESTIMONY OF DYLAN W. D'ASCENDIS**</u>

RATE OF RETURN

May 30, 2025

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I. INTRODUCTION AND PURPOSE

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Dylan W. D'Ascendis. My business address is 1820 Chapel Avenue W., Suite 300, Cherry Hill, NJ 08003.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am a Partner at ScottMadden, Inc.

Q. PLEASE SUMMARIZE YOUR PROFESSIONAL EXPERIENCE AND EDUCATIONAL BACKGROUND.

A. I have offered expert testimony on behalf of investor-owned utilities in over 40 state regulatory commissions in the United States, the Federal Energy Regulatory Commission, the National Energy Regulator in Canada, the Alberta Utility Commission, one American Arbitration Association panel, and the Superior Court of Rhode Island on issues including, but not limited to, common equity cost rate, rate of return, valuation, capital structure, class cost of service, and rate design.

On behalf of the American Gas Association ("AGA"), I calculate the AGA Gas Index, which serves as the benchmark against which the performance of the American Gas Index Fund ("AGIF") is measured on a monthly basis. The AGA Gas Index and AGIF are a market capitalization-weighted index and mutual fund, respectively, comprised of the common stocks of the publicly traded corporate members of the AGA.

I am a member of the Society of Utility and Regulatory Financial Analysts ("SURFA"). In 2011, I was awarded the professional designation "Certified Rate of Return Analyst" by SURFA, which is based on education, experience, and the successful completion of a comprehensive written examination.

1		I am also a member of the National Association of Certified Valuation Analysts
2		("NACVA") and was awarded the professional designation "Certified Valuation Analyst"
3		by the NACVA in 2015.
4		I am a graduate of the University of Pennsylvania, where I received a Bachelor of
5		Arts degree in Economic History. I have also received a Master of Business Administration
6		with high honors and concentrations in Finance and International Business from Rutgers
7		University.
8		The details of my educational background and expert witness appearances are
9		included in Appendix A.
10	**Q.**	**WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THESE PROCEEDINGS?**
11	A.	The purpose of my testimony is to present evidence and provide a recommendation
12		regarding the electric and natural gas operations of Louisville Gas and Electric Company
13		("LGE") and the electric operations of Kentucky Utilities Company ("KU" or the
14		"Companies") return on common equity ("ROE") to be used for ratemaking purposes in
15		these proceedings.
16	**Q.**	**HAVE YOU PREPARED EXHIBITS IN SUPPORT OF YOUR DIRECT**
17		**TESTIMONY?**
18	A.	Yes, I have. I prepared Exhibits DWD-1 through DWD-12, which were prepared by me or
19		under my direct supervision.
20	**Q.**	**WHAT IS YOUR RECOMMENDED ROE FOR LGE AND KU?**
21	A.	I recommend that the Kentucky Public Service Commission ("KY PSC" or the
22		"Commission") authorize LGE's electric and natural gas operations and KU's electric
23		operations the opportunity to earn an ROE of 10.95% on its jurisdictional rate base. The

| 1 | ratemaking capital structure and debt cost rates are sponsored by Company Witness |
| 2 | Burgos. |

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II.   SUMMARY OF TESTIMONY

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4   **Q.   PLEASE SUMMARIZE YOUR RECOMMENDED COMMON EQUITY COST**

5   **RATE.**

6   A.   My recommended common equity cost rate of 10.95% is summarized on pages 1 and 2 of

7   Exhibit DWD-1. I have assessed the market-based common equity cost rates of companies

8   of relatively similar, but not necessarily identical, risk to LGE and KU. Using companies

9   of relatively comparable risk as proxies is consistent with the principles of fair rate of return

10   established in the *Hope*[1] and *Bluefield*[2] decisions. No proxy group can be <u>identical</u> in risk

11   to any single company. Consequently, there must be an evaluation of relative risk between

12   the Company and the proxy group to determine if it is appropriate to adjust the proxy

13   group's indicated rate of return.

14   My recommendation results from the application of several cost of common equity

15   models, specifically the Discounted Cash Flow ("DCF") model, the Risk Premium Model

16   ("RPM"), and the Capital Asset Pricing Model ("CAPM"), to the market data of a proxy

17   group of seven natural gas utilities ("Natural Gas Utility Proxy Group") and 15 vertically

18   integrated electric utilities ("Electric Utility Proxy Group") whose selection criteria will be

19   discussed below. In addition, I applied these same models to proxy groups of 49 and 47

20   domestic, non-price regulated companies comparable in total risk to the Natural Gas Utility

21   Proxy Group and the Electric Utility Proxy Group ("Non-Price Regulated Proxy Groups").

22   The results derived from each are as follows:

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[1]   *Federal Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 591 (1944) ("*Hope*").
[2]   *Bluefield Water Works Improvement Co. v. Public Serv. Comm'n*, 262 U.S. 679 (1923) ("*Bluefield*").

1   **Table 1: Summary of Common Equity Cost Rates**

| | Louisville Gas & Electric | | Kentucky Utilities |
	Gas Proxy Group	Electric Proxy Group	Electric Proxy Group
Discounted Cash Flow Model	10.29%	10.32%	10.32%
Risk Premium Model	10.86%	10.79%	10.79%
Capital Asset Pricing Model	11.12%	10.75%	10.75%
Market Models Applied to Comparable Risk, Non-Price Regulated Companies	11.92%	11.84%	11.84%
Indicated Range of Common Equity Cost Rates Before Adjustments for Company-Specific Risk	10.29% - 11.92%	10.32% - 11.84%	10.32% - 11.84%
Size Adjustment	0.15%	0.10%	0.05%
Credit Risk Adjustment	0.00%	-0.07%	-0.07%
Flotation Cost Adjustment	0.15%	0.15%	0.15%
Indicated Range of Common Equity Cost Rates after Adjustment	10.59% – 12.22%	10.51% – 12.03%	10.46% – 11.97%
Recommended Cost of Common Equity	10.95%	10.95%	10.95%

2

3   The indicated ranges of common equity cost rates applicable to the Natural Gas

4   Utility Proxy Group and the Electric Utility Proxy Group are between 10.29% and 11.92%

5   and 10.32% and 11.84%, respectively, before any Company-specific adjustments.[3]

6   To reflect LGE and KU's specific risks, I then adjusted the indicated common

7   equity cost rate model results to reflect the Companies' smaller relative size and respective

8   bond ratings, as compared to the Natural Gas and Electric Utility Proxy Groups. I also

9   adjusted the indicated ranges of common equity cost rates upward to reflect flotation costs.

10   These adjustments resulted in a Company-specific indicated range of common equity cost

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[3]   The indicated range of ROEs applicable to the Natural Gas Utility Proxy Group excluding the Predictive
       Risk Premium Model ("PRPM") before adjustments is 10.29% to 11.91%. The indicated range of ROEs
       applicable to the Electric Utility Proxy Group excluding the PRPM before adjustments is 10.32% to
       11.83%.

1   rates between 10.59% and 12.22% based on the Natural Gas Utility Proxy Group and

2   10.46% and 11.98% (KU) and 10.51% and 12.03% (LGE) based on the Electric Utility

3   Proxy Group.   From those Company-specific ranges of ROEs I recommend the

4   Commission adopt an ROE of 10.95% for ratemaking purposes for both LGE's electric and

5   natural gas operations and KU's electric operations.

6   **Q.   HOW IS THE REMAINDER OF YOUR DIRECT TESTIMONY ORGANIZED?**

7   A.   The remainder of my Direct Testimony is organized as follows:

8   • <u>Section III</u> – Provides a summary of financial theory and regulatory principles pertinent

9   to the development of the cost of common equity;

10   • <u>Section IV</u> – Explains my selection of the Utility Proxy Group used to develop my

11   analytical results;

12   • <u>Section V</u> – Describes the analyses on which my recommendation is based;

13   • <u>Section VI</u> – Summarizes my common equity cost rate before adjustments to reflect

14   Company-specific factors;

15   • <u>Section VII</u> – Explains my adjustments to my common equity cost rate to reflect

16   Company-specific factors;

17   • <u>Section VIII</u> – Presents other considerations relevant to the cost of common equity; and

18   • <u>Section IX</u> – Presents my conclusions.

19   **III.   GENERAL PRINCIPLES**

20   **Q.   WHAT GENERAL PRINCIPLES HAVE YOU CONSIDERED IN ARRIVING AT**

21   **YOUR RECOMMENDED COMMON EQUITY COST RATE OF 10.95%?**

22   A.   In unregulated industries, marketplace competition is the principal determinant of the price

23   of products or services. For regulated public utilities, regulation must act as a substitute

24   for marketplace competition. Assuring that the utility can fulfill its obligations to the

1   public, while providing safe and reliable service, requires a level of earnings sufficient to

2   maintain the integrity of presently invested capital. Sufficient earnings also permit the

3   attraction of needed new capital at a reasonable cost, for which the utility must compete

4   with other firms of comparable risk, consistent with the fair rate of return standards

5   established by the U.S. Supreme Court in the previously cited *Hope* and *Bluefield* cases.

6   The U.S. Supreme Court affirmed the fair rate of return standards in *Hope*, when it

7   stated:

8   The rate-making process under the Act, *i.e.,* the fixing of 'just and
9   reasonable' rates, involves a balancing of the investor and the consumer
10   interests. Thus we stated in the Natural Gas Pipeline Co. case that
11   'regulation does not insure that the business shall produce net revenues.'
12   315 U.S. at page 590, 62 S.Ct. at page 745. But such considerations aside,
13   the investor interest has a legitimate concern with the financial integrity of
14   the company whose rates are being regulated.   From the investor or
15   company point of view it is important that there be enough revenue not only
16   for operating expenses but also for the capital costs of the business. These
17   include service on the debt and dividends on the stock. Cf. Chicago &
18   Grand Trunk R. Co. v. Wellman, 143 U.S. 339, 345, 346 12 S.Ct. 400,402.
19   By that standard the return to the equity owner should be commensurate
20   with returns on investments in other enterprises having corresponding risks.
21   That return, moreover, should be sufficient to assure confidence in the
22   financial integrity of the enterprise, so as to maintain its credit and to attract
23   capital.[4]

24   In summary, the U.S. Supreme Court has found a return that is adequate to attract

25   capital at reasonable terms enables the utility to provide service while maintaining its

26   financial integrity.   As discussed above, and in keeping with established regulatory

27   standards, that return should be commensurate with the returns expected elsewhere for

28   investments of equivalent risk.   The Commission's decision in these proceedings,

29   therefore, should provide the Company with the opportunity to earn a return that is: (1)

30   adequate to attract capital at reasonable cost and terms; (2) sufficient to ensure the

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[4]   *Hope*, 320 U.S. 591 (1944), at 603.

1   Company's financial integrity; and (3) commensurate with returns on investments in

2   enterprises having corresponding risks.

3   Lastly, the required return for a regulated public utility is established on a stand-

4   alone basis, i.e., for the utility operating company at issue in a rate case. Parent entities,

5   like other investors, have capital constraints and must look at the attractiveness of the

6   expected risk-adjusted return of each investment alternative in their capital budgeting

7   process. That is, utility holding companies that own many utility operating companies or

8   are comprised of separate divisions, have choices as to where they will invest their capital

9   within their operating footprint. Therefore, the opportunity cost concept applies regardless

10   of the source of the funding, public funding or corporate funding.

11   When funding is provided by a parent entity, the return still must be sufficient to

12   provide an incentive to allocate equity capital to the subsidiary or business unit rather than

13   other internal or external investment opportunities. That is, the regulated subsidiary must

14   compete for capital with all the parent company's affiliates, across divisions, and with

15   other, similarly situated utility companies. In that regard, investors value corporate entities

16   on a sum-of-the-parts basis and expect each division within the parent company to provide

17   an appropriate risk-adjusted return.

18   It therefore is important that the authorized ROE reflects the risks and prospects of

19   the utility's operations and supports the utility's financial integrity from a stand-alone

20   perspective as measured by their combined business and financial risks. Consequently, the

21   ROE authorized in these proceedings should be sufficient to support the operational (i.e.,

22   business risk) and financing (i.e., financial risk) of the Companies' utility operations on a

23   stand-alone basis.

1 **Q. WITHIN THAT BROAD FRAMEWORK, HOW IS THE COST OF CAPITAL**

2 **ESTIMATED IN REGULATORY PROCEEDINGS?**

3 A. Regulated utilities primarily use common stock and long-term debt to finance their

4 permanent property, plant, and equipment (i.e., rate base). The fair rate of return for a

5 regulated utility is based on its weighted average cost of capital, in which, as noted earlier,

6 the costs of the individual sources of capital are weighted by their respective book values.

7 The cost of capital is the return investors require to make an investment in a firm.

8 Investors will provide funds to a firm only if the return that they *expect* is equal to, or

9 greater than, the return that they *require* to accept the risk of providing funds to the firm.

10 The cost of capital (that is, the combination of the costs of long-term debt and

11 equity) is based on the economic principle of "opportunity costs." Investing in any asset

12 (whether debt or equity securities) represents a forgone opportunity to invest in alternative

13 assets. For any investment to be sensible, its expected return must be at least equal to the

14 return expected on alternative, comparable risk investment opportunities. Because

15 investments with like risks should offer similar returns, the opportunity cost of an

16 investment should equal the return available on an investment of comparable risk.

17 The cost of debt is contractually defined and can be directly observed as the interest

18 rate or yield on debt securities. However, the cost of equity is not directly observable and

19 must be estimated based on market data and various financial models. Because the cost of

20 equity is premised on opportunity costs, the models used to determine it are typically

21 applied to a group of "comparable" or "proxy" companies.

22 In the end, the estimated cost of capital should reflect the return that investors

23 require in light of the subject company's business and financial risks, and the returns

24 available on comparable investments.

1   **Q.**   **IS THE AUTHORIZED RETURN SET IN REGULATORY PROCEEDINGS**

2   **GUARENTEED?**

3   **A.**   No, it is not. Consistent with the *Hope* and *Bluefield* standards, the ratemaking process

4   should provide the utility a reasonable opportunity to recover its return of, and return on,

5   its reasonably incurred investments, but it does not guarantee that return. While a utility

6   may have control over some factors that affect the ability to earn its authorized return (e.g.,

7   management performance, operating and maintenance expenses, etc.), there are several

8   factors beyond a utility's control that affect its ability to earn its authorized return. Those

9   may include factors such as weather, the economy, and the prevalence and magnitude of

10   regulatory lag.

11   **A.**   **Business Risk**

12   **Q.**   **PLEASE DEFINE BUSINESS RISK AND EXPLAIN WHY IT IS IMPORTANT**

13   **FOR DETERMINING A FAIR RATE OF RETURN.**

14   **A.**   The investor-required return on common equity reflects investors' assessment of the total

15   investment risk of the subject firm. Total investment risk is often discussed in the context

16   of business and financial risk.[5]

17   Business risk reflects the uncertainty associated with owning a company's common

18   stock without the company's use of debt and/or preferred stock financing. One way of

19   considering the distinction between business and financial risk is to view the former as the

20   uncertainty of the expected earned return on common equity, assuming the firm is financed

21   with no debt.

22   Examples of business risks <u>generally</u> faced by utilities include, but are not limited

23   to, the regulatory environment, pipeline safety requirements, mandatory environmental

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[5]   As will be discussed later in this testimony, another definition of total risk is systematic risk plus unsystematic risk.

compliance requirements, customer mix and concentration of customers, service territory economic growth, market demand, risks and uncertainties of supply, operations, capital intensity, size, the degree of operating leverage, and the like, all of which have a direct bearing on earnings.

Although analysts, including rating agencies, may categorize business risks individually, as a practical matter, such risks are interrelated and not wholly distinct from one another. When determining an appropriate return on common equity, the relevant issue is where investors see the subject company in relation to other similarly situated utility companies (i.e., the Utility Proxy Group). To the extent investors view a company as being exposed to higher risk, the required return will increase, and vice versa.

For regulated utilities, business risks are both long-term and near-term in nature. Whereas near-term business risks are reflected in year-to-year variability in earnings and cash flow brought about by economic or regulatory factors, long-term business risks reflect the prospect of an impaired ability of investors to obtain both a fair rate of return on, and return of, their capital. Moreover, because utilities accept the obligation to provide safe, adequate and reliable service (in exchange for a reasonable opportunity to earn a fair return on their investment), they generally do not have the option to delay, defer, or reject capital investments. This means that utilities generally do not have the option to avoid raising external funds during periods of capital market distress, if necessary.

Because utilities invest in long-lived assets, long-term business risks are of paramount concern to equity investors. That is, the risk of not recovering a fair return on their investment extends far into the future. The timing and nature of events that may lead to losses, however, also are uncertain and, consequently, those risks and their implications for the required return on equity tend to be difficult to quantify. Regulatory commissions

1		(like investors who commit their capital) must review a variety of quantitative and
2		qualitative data and apply their reasoned judgment to determine how long-term risks weigh
3		in their assessment of the market-required return on common equity.

B.   Financial Risk

Q.   **PLEASE DEFINE FINANCIAL RISK AND EXPLAIN WHY IT IS IMPORTANT IN DETERMINING A FAIR RATE OF RETURN.**

A.   Financial risk is the additional risk created by the introduction of debt and preferred stock into the capital structure. The higher the proportion of debt and preferred stock in the capital structure, the higher the financial risk to common equity owners (i.e., failure to receive dividends due to default or other covenants). Therefore, consistent with the basic financial principle of risk and return, common equity investors demand higher returns as compensation for bearing higher financial risk.

Q.   **CAN BOND AND CREDIT RATINGS BE A PROXY FOR A FIRM'S COMBINED BUSINESS AND FINANCIAL RISKS TO EQUITY OWNERS (I.E., INVESTMENT RISK)?**

A.   Yes, similar bond ratings/issuer credit ratings reflect, and are representative of, similar combined business and financial risks (i.e., total risk) faced by bond investors.[6] Although specific business or financial risks may differ between companies, the same bond/credit rating indicates that the combined risks are roughly similar from a debtholder perspective. The caveat is that these debtholder risk measures do not translate directly to risks for common equity.

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[6]   Risk distinctions within S&P's bond rating categories are recognized by a plus or minus, e.g., within the A category, an S&P rating can by at A+, A, or A-. Similarly, risk distinction for Moody's ratings are distinguished by numerical rating gradations, e.g., within the A category, a Moody's rating can be A1, A2 and A3.

1	**Q.**	**Do ratings agencies account for company size in their bond ratings?**
2		No. Neither Standard & Poor's Ratings Services ("S&P") nor Moody's Investors Service
3		("Moody's") have minimum company size requirements for any given rating level. This
4		means, all else being equal, a relative size analysis must be conducted for equity
5		investments in companies with similar bond ratings.

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IV.   LGE, KU, AND THE UTILITY PROXY GROUP

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7	**Q.**	**ARE YOU FAMILIAR WITH THE COMPANIES' OPERATIONS?**
8	A.	Yes. LGE's operations serve approximately 440,000 electric customers and 336,000
9		natural gas customers in Kentucky.[7] KU's operations serve approximately 549,000 electric
10		customers in central, southeastern, and western Kentucky and 28,000 customers in
11		southwestern Virginia.[8] LGE and KU are a wholly-owned subsidiaries of PPL Corporation
12		("PPL"), which has regulated operations in four states[9], serves approximately 3.7 million
13		electric and natural gas customers,[10] and is publicly-traded under symbol PPL.
14	**Q.**	**WHY IS IT NECESSARY TO DEVELOP A PROXY GROUP WHEN ESTIMATING**
15		**THE ROE FOR THE COMPANIES?**
16	A.	Because the Companies are not publicly traded and do not have publicly traded equity
17		securities, it is necessary to develop groups of publicly traded, comparable companies to
18		serve as "proxies" for the Company. In addition to the analytical necessity of doing so, the
19		use of proxy companies is consistent with the *Hope* and *Bluefield* comparable risk
20		standards, as discussed above. I have selected two proxy groups that, in my view, are
21		fundamentally risk-comparable to LGE and KU's electric operations: an Electric Utility

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[7]   PPL Corporation, 2024 SEC Form 10-K, at 4.
[8]   PPL Corporation, 2024 SEC Form 10-K, at 4.
[9]   PPL Corporation, 2024 SEC Form 10-K, at 4. In addition to Kentucky, PPL also serves customers in Pennsylvania, Rhode Island, and Virginia.
[10]   PPL Corporation, 2024 SEC Form 10-K, at 4.

1   Proxy Group and a Non-Price Regulated Proxy Group, which is comparable in total risk to

2   the Electric Utility Proxy Group.[11] In addition, I have selected two proxy groups that, in

3   my view, are fundamentally risk-comparable to LGE's natural gas operations: a Natural

4   Gas Utility Proxy Group and a Non-Price Regulated Proxy Group, which is comparable in

5   total risk to the Natural Gas Utility Proxy Group.

6   Even when proxy groups are carefully selected, it is common for analytical results

7   to vary from company to company. Despite the care taken to ensure comparability, because

8   no two companies are identical, market expectations regarding future risks and prospects

9   will vary within the proxy group. It therefore is common for analytical results to reflect a

10   seemingly wide range, even for a group of similarly situated companies. At issue is how

11   to estimate the ROE from within that range. That determination will be best informed by

12   employing a variety of sound analyses that necessarily must consider the sort of

13   quantitative and qualitative information discussed throughout my Direct Testimony.

14   Additionally, a relative risk analysis between the Company and the Utility Proxy Groups

15   must be made to determine whether or not explicit Company-specific adjustments need to

16   be made to the Utility Proxy Groups' indicated results.

17   **Q.   PLEASE EXPLAIN HOW YOU CHOSE THE COMPANIES IN THE ELECTRIC**

18   **UTILITY PROXY GROUP.**

19   A.   The companies selected for the Electric Utility Proxy Group met the following criteria:

20   (i)   They were included in the Eastern, Central, or Western Electric Utility Group of

21   Value Line (Standard Edition);

22   (ii)   They have 70% or greater of fiscal year 2023 total operating income derived from,

23   or 70% or greater of fiscal year 2023 total assets attributable to, regulated electric

24   operations;

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[11]   The development of the Non-Price Regulated Proxy Group is explained in more detail in Section V.

	(iii)	They are vertically integrated (i.e., utilities that own and operate regulated generation, transmission, and distribution assets);
	(iv)	At the time of preparation of this direct testimony, they had not publicly announced that they were involved in any major merger or acquisition activity (i.e., one publicly-traded utility merging with or acquiring another);
	(v)	They have not cut or omitted their common dividends during the five years ended 2023 or through the time of preparation of this testimony;
	(vi)	They have *Value Line* and Bloomberg Professional Services ("Bloomberg") adjusted betas;
	(vii)	They have positive *Value Line* five-year dividends per share ("DPS") growth rate projections; and
	(viii)	They have *Value Line*, Zacks, or S&P Capital IQ consensus five-year earnings per share ("EPS") growth rate projections.

The following 15 companies met these criteria:

1 **Table 2: Electric Utility Proxy Group Screening Results**

Company	Ticker
Alliant Energy Corporation	LNT
Ameren Corporation	AEE
American Electric Power Company, Inc.	AEP
Duke Energy Corporation	DUK
Edison International	EIX
Entergy Corporation	ETR
Evergy, Inc.	EVRG
IDACORP, Inc.	IDA
NorthWestern Corporation	NWE
OGE Energy Corporation	OGE
Pinnacle West Capital Corporation	PNW
Portland General Electric Co.	POR
Southern Company	SO
TXNM Energy Inc.	TXNM
Xcel Energy, Inc.	XEL

2 **Q. PLEASE EXPLAIN HOW YOU CHOSE THE COMPANIES IN THE NATURAL**

3 **GAS UTILITY PROXY GROUP.**

4 A.   The companies selected for the Natural Gas Utility Proxy Group met the following criteria:

5   (i)   They were included in the Natural Gas Utility Group of Value Line;

6   (ii)   They have 60% or greater of fiscal year 2023 total operating income derived from,

7   and 60% or greater of fiscal year 2023 total assets attributable to, regulated gas

8   distribution operations;

9   (iii)   At the time of preparation of this testimony, they had not publicly announced that

10   they were involved in any major merger or acquisition activity (*i.e.*, one publicly-

11   traded utility merging with or acquiring another) or any other major development;

12   (iv)   They have not cut or omitted their common dividends during the five years ended

13   2023 or through the time of preparation of this testimony;

1 (v)   They have *Value Line* and Bloomberg Professional Services ("Bloomberg")

2   adjusted beta coefficients ("beta");

3 (vi) They have positive *Value Line* five-year dividends per share ("DPS") growth rate

4   projections; and

5 (vii) They have *Value Line*, Zacks, or S&P Capital IQ consensus five-year EPS growth

6   rate projections.

7 The following seven companies met these criteria:

8   **Table 3: Natural Gas Utility Proxy Group Screening Results**

Company	Ticker
Atmos Energy Corporation	ATO
New Jersey Resources Corporation	NJR
NiSource Inc.	NI
Northwest Natural Gas Company	NWN
ONE Gas, Inc.	OGS
Southwest Gas Holdings, Inc.	SWX
Spire Inc.	SR

9   **V.   CAPITAL STRUCTURE**

10 **Q.   WHAT ARE LGE'S AND KU'S REQUESTED CAPITAL STRUCTURES?**

11 A.   LGE's natural gas and electric requested capital structures consist of 1.71% short-term

12   debt, 45.36% long-term debt and 52.93% common equity. KU's requested capital structure

13   consists of 2.55% short-term debt, 44.60% long-term debt, and 52.86% common equity as

14   testified to by Ms. Burgos.[12]

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[12] Differences due to rounding.

1 **Q.   HOW DO THE COMPANIES' REQUESTED COMMON EQUITY RATIOS**

2 **COMPARE WITH THE COMMON EQUITY RATIOS MAINTAINED BY THE**

3 **UTILITY PROXY GROUPS?**

4 A.   The Companies' requested ratemaking common equity ratios are reasonable and consistent

5   with the range of common equity ratios maintained by the Electric and Natural Gas Utility

6   Proxy Groups. As shown on pages 3 and 4 of Exhibit DWD-2, common equity ratios of

7   the Natural Gas and Electric Utility Proxy Group companies range from 40.23% to 62.38%

8   and 28.06% to 50.97%, respectively, for fiscal year 2023.

9   In addition to comparing the Companies' actual common equity ratio with current

10   common equity ratios maintained by the Electric and Natural Gas Utility Proxy Group

11   companies, I also compared the company's actual common equity ratio with the equity

12   ratios maintained by the utility operating subsidiaries of the Natural Gas and Electric Utility

13   Proxy Group companies. As shown on pages 5 through 7 of Exhibit DWD-2, common

14   equity ratios of the utility operating subsidiaries of the Natural Gas Utility Proxy Group

15   range from 37.70% to 60.41% and the utility operating subsidiaries of the Electric Utility

16   Proxy Group range from 36.55% to 66.40% for fiscal year 2023.

17 **Q.   ARE   LGE'S   AND   KU'S   EQUITY   RATIOS   APPROPRIATE   FOR**

18 **RATEMAKING PURPOSES GIVEN THE MEASURES CITED ABOVE?**

19 A.   Yes, they are. LGE's equity ratio is appropriate for ratemaking purposes in the current

20   proceedings because it is within the range of the common equity ratios currently

21   maintained, and expected to be maintained, by the Natural Gas Utility Proxy Group and

22   their utility operating subsidiaries.

23   In addition, although LGE's and KU's capital structure contains more equity than

24   the range of equity ratios maintained by the Electric Utility Proxy group, it finances LGE's

1	and KU's rate base. Nevertheless, since LGE and KU would be perceived to have less
2	financial risk than the Electric Utility Proxy Group due to its higher equity ratio, based on
3	its less risky bond rating I have made a downward adjustment to the Electric Utility Proxy
4	Group's indicated ROE, as will be discussed below.

<div align="center">

VI. COMMON EQUITY COST RATE MODELS

</div>

Q. IS IT IMPORTANT THAT COST OF COMMON EQUITY MODELS BE MARKET BASED?

A. Yes. While a public utility operates a regulated business within the states in which it operates, it still must compete for equity in capital markets along with all other companies of comparable risk, which includes non-utilities. The cost of common equity is thus determined based on equity market expectations for the returns of those companies. If an individual investor is choosing to invest their capital among companies of comparable risk, they will choose a company providing a higher return over a company providing a lower return.

Q. ARE YOUR COST OF COMMON EQUITY MODELS MARKET BASED?

A. Yes. The DCF model uses market prices in developing the model's dividend yield component. The RPM uses bond ratings and expected bond yields that reflect the market's assessment of bond/credit risk. In addition, betas (β), which reflect the market/systematic risk component of equity risk premium, are derived from regression analyses of market prices.   The CAPM is market-based for many of the same reasons that the RPM is market-based (i.e., the use of expected bond yields and betas). Selection criteria for comparable risk non-price regulated companies are based on regression analyses of market prices and reflect the market's assessment of total risk.

1 **Q. WHAT ANALYTICAL APPROACHES DID YOU USE TO DETERMINE THE**

2 **COMPANY'S ROE?**

3 A. As discussed earlier, I have relied on the DCF model, the RPM, and the CAPM, which I

4   apply to the Utility Proxy Groups described above. I also applied these same models to

5   the Non-Price Regulated Proxy Groups described later in this section.

6   I rely on these models because reasonable investors use a variety of tools and do

7   not rely exclusively on a single source of information or single model. Moreover, the

8   models on which I rely focus on different aspects of return requirements and provide

9   different insights to investors' views of risk and return. The DCF model, for example,

10   estimates the investor-required return assuming a constant expected dividend yield and

11   growth rate in perpetuity, while Risk Premium-based methods (i.e., the RPM and CAPM

12   approaches) provide the ability to reflect investors' views of risk, future market returns,

13   and the relationship between interest rates and the cost of common equity. Just as the use

14   of market data for the Utility Proxy Groups adds the reliability necessary to inform expert

15   judgment in arriving at a recommended common equity cost rate, the use of multiple

16   generally accepted common equity cost rate models also adds reliability and accuracy when

17   arriving at a recommended common equity cost rate.

18   **A. Discounted Cash Flow Model**

19 **Q. WHAT IS THE THEORETICAL BASIS OF THE DCF MODEL?**

20 A. The theory underlying the DCF model is that the present value of an expected future stream

21   of net cash flows during the investment holding period can be determined by discounting

22   those cash flows at the cost of capital, or the investors' capitalization rate. DCF theory

23   indicates that an investor buys a stock for an expected total return rate, which is derived

24   from the cash flows received from dividends and market price appreciation.

1   Mathematically, the dividend yield on market price plus a growth rate equals the

2   capitalization rate; *i.e.*, the total common equity return rate expected by investors.

3    $$K_e = (D_0 (1+g))/P + g$$

4   where:

5   K_e = the required Return on Common Equity;

6   D_0 = the annualized Dividend Per Share;

7   P = the current stock price; and

8   g = the growth rate.

9   **Q.   WHICH VERSION OF THE DCF MODEL DID YOU USE?**

10   A.   I used the single-stage constant growth DCF model in my analyses.

11   **Q.   PLEASE DESCRIBE THE DIVIDEND YIELD YOU USED IN APPLYING THE**

12   **CONSTANT GROWTH DCF MODEL.**

13   A.   The unadjusted dividend yields are based on the proxy companies' dividends as of February

14   28, 2025, divided by the average closing market price for the 60 trading days ended

15   February 28, 2025.[13]

16   **Q.   PLEASE EXPLAIN YOUR ADJUSTMENT TO THE DIVIDEND YIELD.**

17   A.   Because dividends are paid periodically (*e.g.* quarterly), as opposed to continuously (daily),

18   an adjustment must be made to the dividend yield. This is often referred to as the discrete,

19   or the Gordon Periodic, version of the DCF model.

20   DCF theory calls for using the full growth rate, or D_1, in calculating the model's

21   dividend yield component. Since the companies in the Utility Proxy Group increase their

22   quarterly dividends at various times during the year, a reasonable assumption is to reflect

23   one-half the annual dividend growth rate in the dividend yield component, or $D_{1/2}$. Because

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[13]   *See*, column 1, page 1 of Exhibit DWD-2.

1	the dividend should be representative of the next 12-month period, this adjustment is a
2	conservative approach that does not overstate the dividend yield. Therefore, the actual
3	average dividend yields in Column 1, page 1 of Exhibit DWD-2 have been adjusted upward
4	to reflect one-half the average projected growth rate shown in Column 6.

5 **Q.** **PLEASE EXPLAIN THE BASIS FOR THE GROWTH RATES YOU APPLY TO**
6 **THE UTILITY PROXY GROUPS IN YOUR CONSTANT GROWTH DCF MODEL.**

7 **A.** Investors are likely to rely on widely available financial information services, such as *Value*
8 *Line*, Zacks, and S&P Capital IQ. Investors realize that analysts have significant insight
9 into the dynamics of the industries and individual companies they analyze, as well as
10 companies' ability to effectively manage the effects of changing laws and regulations, and
11 ever-changing economic and market conditions. For these reasons, I used analysts' five-
12 year forecasts of EPS growth in my DCF analysis.

13 Over the long run, there can be no growth in DPS without growth in EPS. Security
14 analysts' earnings expectations have a more significant influence on market prices than
15 dividend expectations. Thus, using earnings growth rates in a DCF analysis provides a
16 better match between investors' market price appreciation expectations and the growth rate
17 component of the DCF.

18 **Q.** **PLEASE SUMMARIZE THE CONSTANT GROWTH DCF MODEL RESULTS.**

19 **A.** The results of applying the DCF model to the Utility Proxy Groups are shown on page 1
20 of Exhibit DWD-3 and in Tables 4 and 5 below:

21 **Table 4: DCF Model Results for the Natural Gas Utility Proxy Group**

Mean	10.27%
Median	10.31%
Average of Mean and Median	10.29%

22

1 **Table 5: DCF Model Results for the Electric Utility Proxy Group**

Mean	10.33%
Median	10.30%
Average of Mean and Median	10.32%

2   In arriving at a conclusion for the constant growth DCF-indicated common equity

3 cost rate for the Utility Proxy Groups, I relied on an average of the mean and median results

4 of the DCF, specifically 10.29% for the Natural Gas Utility Proxy Group and 10.32% for

5 the Electric Utility Proxy Group. This approach takes into consideration all proxy company

6 results while mitigating high and low side outliers of those results.

7   **B.**   **The Risk Premium Model**

8 **Q.**   **PLEASE DESCRIBE THE THEORETICAL BASIS OF THE RPM.**

9 A.   The RPM is based on the fundamental financial principle of risk and return; namely, that

10 investors require greater returns for bearing greater risk. The RPM recognizes that

11 common equity capital has greater investment risk than debt capital, as common equity

12 shareholders are behind debt holders in any claim on a company's assets and earnings. As

13 a result, investors require higher returns from common stocks than from bonds to

14 compensate them for bearing the additional risk.

15   While it is possible to directly observe bond returns and yields, investors' required

16 common equity returns cannot be directly determined or observed. According to RPM

17 theory, one can estimate a common equity risk premium over bonds (either historically or

18 prospectively) and use that premium to derive a cost rate of common equity. The cost of

19 common equity equals the expected cost rate for long-term debt capital, plus a risk

20 premium over that cost rate, to compensate common shareholders for the added risk of

21 being unsecured and last-in-line for any claim on the corporation's assets and earnings in

22 the event of liquidation.

1   Q.   **PLEASE EXPLAIN THE TOTAL MARKET APPROACH RPM.**

2   A.   The total market approach RPM adds a prospective public utility bond yield to an average

3   of: (1) an equity risk premium that is derived from a beta-adjusted total market equity risk

4   premium, (2) an equity risk premium based on the S&P Utilities Index, and (3) an equity

5   risk premium based on authorized ROEs for natural gas distribution utilities.

6   Q.   **PLEASE EXPLAIN THE BASIS OF THE EXPECTED BOND YIELDS**

7   **APPLICABLE TO THE NATURAL GAS AND ELECTRIC UTILITY PROXY**

8   **GROUPS.**

9   A.   The first step in the total market approach RPM analysis is to determine the expected bond

10   yield. Because both ratemaking and the cost of capital, including the common equity cost

11   rate, are prospective in nature, a prospective yield on similarly-rated long-term debt is

12   essential. I relied on a consensus forecast of about 50 economists of the expected yield on

13   Aaa-rated corporate bonds for the six calendar quarters ending with the second calendar

14   quarter of 2026, and *Blue Chip Financial Forecast's ("Blue Chip")* long-term projections

15   for 2026 to 2030, and 2031 to 2035. As shown on line 1, page 1 of Exhibit DWD-4, the

16   average expected yield on Moody's Aaa-rated corporate bonds is 5.35%. In order to adjust

17   the expected Aaa-rated corporate bond yield to an equivalent A2-rated public utility bond

18   yield, I made an upward adjustment of 0.38%, which represents a recent spread between

19   Aaa-rated corporate bonds and A2-rated public utility bonds.[14] Adding that recent 0.38%

20   spread to the expected Aaa-rated corporate bond yield of 5.35% results in an expected A2-

21   rated public utility bond yield of 5.73%. Since the Utility Proxy Group's average Moody's

22   long-term issuer rating is A2, no further adjustment is needed.

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[14]   As shown on line 2 of page 1 of Exhibit DWD-4 and explained in note 2, page 1 of Exhibit DWD-4.

Table 6: Summary of the Calculation of the Utility Proxy Group Projected Bond Yield[15]

	Natural Gas	Electric
Prospective Yield on Moody's Aaa-Rated Corporate Bonds (*Blue Chip*)	5.35%	5.35%
Adjustment to Reflect Yield Spread Between Moody's Aaa-Rated Corporate Bonds and Moody's A2-Rated Utility Bonds	0.38%	0.38%
Adjustment to Reflect the Natural Gas Utility Proxy Group's Average Moody's Bond Rating of A3	0.07%	
Adjustment to Reflect the Electric Utility Proxy Group's Average Moody's Bond Rating of Baa1		0.13%
Prospective Bond Yield Applicable to the Utility Proxy Group	5.80%	5.86%

a.   The Beta-Derived Risk Premium

Q.   PLEASE EXPLAIN HOW THE BETA-DERIVED EQUITY RISK PREMIUM IS DETERMINED.

A.   The components of the beta-derived risk premium model are: (1) an expected market equity risk premium over corporate bonds, and (2) the beta. The derivation of the beta-derived equity risk premium that I applied to the Utility Proxy Group is shown on lines 1 through 8, on page 6 of Exhibit DWD-4. The total beta-derived equity risk premium I applied is based on an average of three historical market data-based equity risk premiums, a *Value Line*-based equity risk premium, and a combined *Value Line*, Bloomberg, and S&P Capital IQ-based equity risk premium. Each of these are described below.

Q.   HOW DID YOU DERIVE A MARKET EQUITY RISK PREMIUM BASED ON LONG-TERM HISTORICAL DATA?

A.   To derive a historical market equity risk premium, I used the most recent holding period returns for the large company common stocks less the average historical yield on Moody's

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[15]   As shown on page 1 of Exhibit DWD-4.

1 Aaa/Aa-rated corporate bonds for the period 1928 to 2024. The use of holding period

2 returns over a very long period of time is appropriate because it is consistent with the long-

3 term investment horizon presumed by investing in a going concern, i.e., a company

4 expected to operate in perpetuity.

5 The long-term arithmetic mean monthly total return rate on large company common

6 stocks was 12.05% and the long-term arithmetic mean monthly yield on Moody's Aaa/Aa-

7 rated corporate bonds was 5.95% from 1928 to 2024. As shown on line 1 of page 6 of

8 Exhibit DWD-4, subtracting the mean monthly bond yield from the total return on large

9 company stocks results in a long-term historical equity risk premium of 6.10%.

10 I used the arithmetic mean monthly total return rates for the large company stocks

11 and yields (income returns) for the Moody's Aaa/Aa-rated corporate bonds, because they

12 are appropriate for the purpose of estimating the cost of capital as noted in Kroll's Stocks,

13 Bonds, Bills, and Inflation ("SBBI") Yearbook 2023 ("SBBI - 2023"). The use of the

14 arithmetic mean return rates and yields is appropriate because historical total returns and

15 equity risk premiums provide insight into the variance and standard deviation of returns

16 needed by investors in estimating future risk when making a current investment. If

17 investors relied on the geometric mean of historical equity risk premiums, they would have

18 no insight into the potential variance of future returns because the geometric mean relates

19 the change over many periods to a constant rate of change, thereby obviating the year-to-

20 year fluctuations, or variance, which is critical to risk analysis.

21 Q. **PLEASE EXPLAIN THE DERIVATION OF THE REGRESSION-BASED**

22 **MARKET EQUITY RISK PREMIUM.**

23 A. To derive the regression-based market equity risk premium of 6.82% shown on line 2, page

24 6 of Exhibit DWD-4, I used the same monthly annualized total returns on large company

1   common stocks relative to the monthly annualized yields on Moody's Aaa/Aa-rated

2   corporate bonds as mentioned above. I modeled the relationship between interest rates and

3   the market equity risk premium using the observed monthly market equity risk premium

4   as the dependent variable, and the monthly yield on Moody's Aaa/Aa-rated corporate bonds

5   as the independent variable. I then used a linear Ordinary Least Squares ("OLS")

6   regression, in which the market equity risk premium is expressed as a function of the

7   Moody's Aaa/Aa-rated corporate bond yield:

$$RP = \alpha + \beta \, (R_{Aaa/Aa})$$

9   where:

10   RP = the market equity risk premium;

11   α = the regression intercept coefficient;

12   β = the regression slope coefficient; and

13                  $R_{Aaa/Aa}$ = the Moody's Aaa/Aa rated corporate bond yield.

14 **Q.   PLEASE EXPLAIN THE DERIVATION OF THE PRPM EQUITY RISK**

15 **PREMIUM.**

16 A.   The PRPM, published in the *Journal of Regulatory Economics* and *The Electricity*

17   *Journal,*[16] was developed from the work of Robert F. Engle, who shared the Nobel Prize in

18   Economics in 2003 "for methods of analyzing economic time series with time-varying

19   volatility ("ARCH")".[17] Engle found that volatility changes over time and is related from

20   one period to the next, especially in financial markets. Engle discovered that the volatility

---

[16]   Autoregressive conditional heteroscedasticity. *See*, "A New Approach for Estimating the Equity Risk
        Premium for Public Utilities", Pauline M. Ahern, Frank J. Hanley and Richard A. Michelfelder, *The
        Journal of Regulatory Economics* (December 2011), 40:261-278 and "Comparative Evaluation of the
        Predictive Risk Premium Model, the Discounted Cash Flow Model and the Capital Asset Pricing Model for
        Estimating the Cost of Common Equity", Richard A. Michelfelder, Pauline M. Ahern, Dylan W.
        D'Ascendis, and Frank J. Hanley, *The Electricity Journal* (May 2013), 84-89.
[17]   www.nobelprize.org.

1   in prices and returns clusters over time, and is therefore highly predictable, and can be used

2   to predict future levels of risk and risk premiums.

3   The PRPM estimates the risk / return relationship directly, as the predicted equity

4   risk premium is generated by the prediction of volatility or risk. The PRPM is not based

5   on an <u>estimate</u> of investor behavior, but rather on the evaluation of the results of that

6   behavior (i.e., the variance of historical equity risk premiums).

7   The inputs to the model are the historical returns on large company stocks minus

8   the historical monthly yield on Moody's Aaa/Aa-rated corporate bonds from January 1928

9   through February 2025. Using a generalized form of ARCH, known as GARCH, I

10   calculated each Utility Proxy Group company's projected equity risk premium using

11   Eviews© statistical software. When the GARCH model is applied to the historical return

12   data, it produces a predicted GARCH variance series and a GARCH coefficient.

13   Multiplying the predicted monthly variance by the GARCH coefficient and then

14   annualizing, it produces the predicted annual equity risk premium. The resulting PRPM

15   predicted a market equity risk premium of 7.32%.[18]

16   **Q.   IS THE PRPM SUPPORTED BY ACADEMIC LITERATURE?**

17   A.   Yes, it is. The PRPM is based on the research of Dr. Robert F. Engle, dating back to the

18   early 1980s. Dr. Engle discovered that the volatility of market prices, returns, and risk

19   premiums clusters over time, making prices, returns, and risk premiums highly predictable.

20   In 2003, he shared the Nobel Prize in Economics for this work, characterized as "methods

21   of analyzing economic time series with time-varying volatility ("ARCH").[19] Dr. Engle[20]

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[18]   Shown on line 3, page 6 of Exhibit DWD-4.
[19]   www.nobelprize.org.
[20]   Robert Engle, "GARCH 101: The Use of ARCH/GARCH Models in Applied Econometrics", *Journal of Economic Perspectives*, Volume 15, No. 4, Fall 2001, at 157-168.

noted that relative to volatility, "the standard tools have become the ARCH/GARCH[21] models." Hence, the methodology is not new.

In addition, the GARCH methodology has been well tested by academia since Engle's, *et al*. research was originally published in 1982, over 40 years ago. I use the well-established GARCH methodology to estimate the PRPM model using a standard commercial and relatively inexpensive statistical package, Eviews,[©22] to develop a means by which to estimate a predicted equity risk premium which, when added to a bond yield, results in a cost of common equity.

Also, the PRPM is in the public domain, having been published six times in academically peer-reviewed journals: *Journal of Economics and Business* (June 2011 and April 2015),[23] *The Journal of Regulatory Economics* (December 2011),[24] *The Electricity Journal* (May 2013 and March 2020),[25] and *Energy Policy* (April 2019).[26] Notably, none of these articles have been rebutted in the academic literature. Finally, the PRPM has also been presented to a number of utility industry/regulatory/academic groups including the following: The Edison Electric Institute Cost of Capital Working Group; The NARUC

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[21] Autoregressive Conditional Heteroskedasticity/Generalized Autoregressive Conditional Heteroskedasticity.
[22] In addition to Eviews,® the GARCH methodology can be applied and the PRPM derived using other standard statistical software packages such as SAS, RATS, S-Plus and JMulti, which are not cost-prohibitive. The software that I used in these proceedings, Eviews,® currently costs $600 - $700 for a single user commercial license. In addition, JMulti is a free downloadable software with GARCH estimation applications.
[23] Eugene A. Pilotte and Richard A. Michelfelder, "Treasury Bond Risk and Return, the Implications for the Hedging of Consumption and Lessons for Asset Pricing", *Journal of Economics and Business*, June 2011, 582-604. and Richard A. Michelfelder, "Empirical Analysis of the Generalized Consumption Asset Pricing Model: Estimating the Cost of Capital", *Journal of Economics and Business*, April 2015, 37-50.
[24] Pauline M. Ahern, Frank J. Hanley, and Richard A. Michelfelder, "New Approach to Estimating the Equity Risk Premium for Public Utilities", *The Journal of Regulatory Economics*, December 2011, at 40:261-278.
[25] Richard A. Michelfelder, Pauline M. Ahern, Dylan W. D'Ascendis, and Frank J. Hanley, "Comparative Evaluation of the Predictive Risk Premium Model, the Discounted Cash Flow Model and the Capital Asset Pricing Model for Estimating the Cost of Common Equity", *The Electricity Journal*, April 2013, at 84-89; and Richard A. Michelfelder, Pauline M. Ahern, and Dylan W. D'Ascendis, "Decoupling, Risk Impacts and the Cost of Capital", *The Electricity Journal*, January 2020.
[26] Richard A. Michelfelder, Pauline M. Ahern, and Dylan W. D'Ascendis, "Decoupling Impact and Public Utility Conservation Investment", *Energy Policy*, April 2019, 311-319.

Staff Subcommittee on Accounting and Finance; The National Association of Electric

Companies Finance/Accounting/Taxation and Rates and Regulations Committees; the

NARUC Electric Committee; The Wall Street Utility Group; the Indiana Utility Regulatory

Commission Cost of Capital Task Force; the Financial Research Institute of the University

of Missouri Hot Topic Hotline Webinar; and the Center for Research and Regulated

Industries Annual Eastern Conference on two occasions.

7 Q. HAS THE PRPM BEEN IMPLICITLY ACCEPTED BY OTHER REGULATORY

8 COMMISSIONS?

9 A. Yes, in Docket No. 2017-292-WS, the Public Service Commission of South Carolina

10 ("PSC SC") accepted Blue Granite Water Company's entire requested ROE, which

11 included the PRPM. The relevant portion states:

> 12 The Commission finds Mr. D'Ascendis' arguments persuasive. He provided
> 13 more indicia of market returns, by using more analytical methods and proxy
> 14 group calculations. Mr. D'Ascendis' use of analysts' estimates for his DCF
> 15 analysis is supported by consensus, as is his use of the arithmetic mean. The
> 16 Commission also finds that Mr. D'Ascendis' non-price regulated proxy
> 17 group more accurately reflects the total risk faced [by] price regulated
> 18 utilities and CWS. Furthermore, there is no dispute that CWS is
> 19 significantly smaller than its proxy group counterparts, and, therefore, it
> 20 may present a higher risk. An appropriate ROE for CWS is 10.45% to
> 21 10.95%. The Company used an ROE of 10.5% in computing its
> 22 Application, a return on the low end of Mr. D'Ascendis' range, and the
> 23 Commission finds that ROE is supported by the evidence.[27]

24 In addition, in Docket No. W-354, Subs 363, 364 and 365, the State of North

25 Carolina Utilities Commission ("NCUC") approved my RPM and CAPM analyses, which

26 used PRPM analyses as presented in these proceedings. The relevant portion of the order

27 states:

> 28 In doing so the Commission finds that the DCF (8.81%), Risk Premium
> 29 (10.00%) and CAPM (9.29%) model results provided by witness
> 30 D'Ascendis, as updated to use current rates in D'Ascendis Late-Filed
> 31 Exhibit No. 1, as well as the risk premium (9.57%) analysis of witness

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[27] PSC SC Docket No. 2017-292-WS - Order No. 2018-345, at 14. (May 17, 2018)

1		Hinton, are credible, probative, and are entitled to substantial weight as set
2		forth below.[28]

Q. HAS THE COMMISSION REJECTED THE PRPM PREVIOUSLY?

A. Yes, it has. In Case No. 2021-00214 concerning Atmos Energy, the Commission stated:

> Even though the Commission supports the use and presentation of multiple
> modelling approaches, the Commission finds that Atmos Kentucky's use of
> the Predictive Risk Premium Model (PRPM) should be rejected. Though
> the PRPM model has been published and presented in multiple forums, it
> has been rejected by this Commission and only been addressed by three
> other regulatory jurisdictions thus far and is not universally accepted.

Similarly, in Case No. 2022-00432 concerning Bluegrass Water Utility Operating

Company, LLC, the Commission stated:

> Even though the Commission supports the use and presentation of multiple
> modelling approaches, the Commission continues to reject the use of the
> PRPM model to estimate risk premium. The PRPM model has been only
> been addressed by three other regulatory commissions and is not universally
> accepted.

Q. DO YOU HAVE A RESPONSE TO THE COMMISSION'S STATEMENTS?

A. Yes, I do. I appreciate the Commission's openness to considering multiple models in its

determination of ROEs for the utilities they regulate, but I respectfully disagree with their

exclusion of the PRPM in Case No. 2021-00214 and Case No. 2022-00432. As noted

above, the theory supporting the model is based on the Nobel Prize winning work of Engle,

and the model itself has been published six times in four separate peer-reviewed academic

journals, which indicates that it has been thoroughly vetted by the academic community.

This, in addition to the fact that the model has not been rebutted in the academic literature

in the over ten years since it has been presented should speak to the model's soundness.

Regarding the amount of times the model has been addressed in final orders; while

it is true that a number regulatory commissions have addressed the PRPM in their final

---

[28] NCUC Docket No. W-354, Sub 363, 364, 365, *Order Granting Partial Rate Increase and Requiring Customer Notice*, at PDF 72 (March 31, 2020).

1		orders, the model has been presented in over 100 regulatory proceedings in approximately
2		40 U.S. regulatory jurisdictions and the Alberta Utilities Commission in Canada. This
3		would indicate that while maybe not universally accepted, the model is widely
4		disseminated across the U.S. regulatory landscape.

1 orders, the model has been presented in over 100 regulatory proceedings in approximately

2 40 U.S. regulatory jurisdictions and the Alberta Utilities Commission in Canada. This

3 would indicate that while maybe not universally accepted, the model is widely

4 disseminated across the U.S. regulatory landscape.

5 In view of the above, the soundness of the model, as evidenced in the underlying

6 theory and the academic vetting of the PRPM, and the wide dissemination of the model in

7 the U.S. regulatory landscape should lead the Commission reconsider the PRPM in its

8 determination regarding the ROE for LGE and KU in these proceedings.

9 **Q.** **HAVE YOU APPLIED THE PRPM IN THE SAME MANNER IN THESE**

10 **PROCEEDINGS AS YOU DID IN ATMOS ENERGY'S RECENT RATE CASE**

11 **(CASE NO. 2024-00276)?**

12 A. Yes, I have. I rely on the PRPM solely in my estimation of the equity risk premium used

13 in my RPM and CAPM analyses.

14 **Q.** **DOES INCLUDING THE PRPM MATERIALLY AFFECT YOUR INDICATED**

15 **MODEL RESULTS?**

16 A. No, it does not. While I respectfully disagree with the Commission's previous findings, I

17 have presented my ROE model results including and excluding the PRPM for the

18 Commission's convenience. Viewing the results of the Natural Gas Utility Proxy Group,

19 the difference in the RPM, CAPM and Non-Price Regulated Proxy Group including and

20 excluding the PRPM are 0.05%, 0.01%, and 0.01%, respectively. The difference in the

21 RPM and Non-Price Regulated Proxy Group results for the Electric Utility Proxy Group

22 including and excluding the PRPM are 0.05% and 0.01%, respectively. The CAPM results

23 for the Electric Utility Proxy Group are the same. These differences do not change my

24 recommended ROE in this instance.

| 1 | Q. | **PLEASE EXPLAIN THE DERIVATION OF A PROJECTED EQUITY RISK** |

1   **Q.**   **PLEASE EXPLAIN THE DERIVATION OF A PROJECTED EQUITY RISK**

2   **PREMIUM BASED ON *VALUE LINE* SUMMARY & INDEX DATA FOR YOUR**

3   **RPM ANALYSIS.**

4   A.   As noted above, because both ratemaking and the cost of capital are prospective, a

5   prospective market equity risk premium is needed. The derivation of the forecasted or

6   prospective market equity risk premium can be found in note 4, page 6 of Exhibit DWD-

7   4. Consistent with my calculation of the dividend yield component in my DCF analysis,

8   this prospective market equity risk premium is derived from an average of the three-to five-

9   year median market price appreciation potential by *Value Line* for the 13 weeks ended

10   February 28, 2025, plus an average of the median estimated dividend yield for the common

11   stocks of the 1,700 firms covered in *Value Line* (Standard Edition).[29]

12   The average median expected price appreciation is 42%, which translates to a

13   9.16% annual appreciation, and when added to the average of *Value Line's* median expected

14   dividend yields of 2.04%, equates to a forecasted annual total return rate on the market of

15   11.20%. The forecasted Moody's Aaa-rated corporate bond yield of 5.35% is deducted

16   from the total market return of 11.20%, resulting in an equity risk premium of 5.85%, as

17   shown on line 4, page 6 of Exhibit DWD-4.

18   **Q.**   **PLEASE EXPLAIN THE DERIVATION OF AN EQUITY RISK PREMIUM**

19   **BASED ON THE S&P 500 COMPANIES.**

20   A.   Using data from *Value Line*, Bloomberg, and S&P Capital IQ, I calculated an expected total

21   return on the S&P 500 companies using expected dividend yields and long-term growth

22   estimates as a proxy for capital appreciation. The expected total return for the S&P 500 is

23   15.23%. Subtracting the prospective yield on Moody's Aaa-rated corporate bonds of

---

[29]   As explained in detail in note 1, page 2 of Exhibit DWD-4.

1   5.35% results in a 9.88% projected equity risk premium as shown on page 6, line 5 of

2   Exhibit DWD-4.

3   **Q.   WHAT IS YOUR CONCLUSION OF A BETA-DRIVEN EQUITY RISK**

4   **PERMIUM FOR USE IN YOUR RPM ANALYSIS?**

5   A.   I gave equal weight to all five equity risk premiums based on each source – historical, *Value*

6   *Line*, and Bloomberg – in arriving at a 7.19% equity risk premium.

7   **Table 7: Summary of the Calculation of the Equity Risk Premium Using Total**
8   **Market Returns[30]**

9
Historical Spread Between Total Returns of Large Stocks and Aaa and Aa-Rated Corporate Bond Yields (1928 – 2024)	6.10%
Regression Analysis on Historical Data	6.82%
PRPM Analysis on Historical Data	7.32%
Prospective Equity Risk Premium using Total Market Returns from *Value Line* Summary & Index less Projected Aaa Corporate Bond Yields	5.85%
Prospective Equity Risk Premium using Measures of Capital Appreciation and Income Returns for the S&P 500 less Projected Aaa Corporate Bond Yields	9.88%
Average	7.19%

10

11

12   After calculating the average market equity risk premium of 7.19%, I adjusted it by

13   beta to account for the risk of the Utility Proxy Groups. As discussed below, beta is a

14   meaningful measure of prospective relative risk to the market as a whole, and is a logical

15   way to allocate a company's, or proxy group's, share of the market's total equity risk

16   premium relative to corporate bond yields. As shown on page 1 of Exhibit DWD-4, the

17   average of the mean and median beta for the Natural Gas and Electric Utility Proxy Groups

18   are 0.79 and 0.73, respectively. Multiplying beta by the market equity risk premium of

---

[30]   As shown on page 6 of Exhibit DWD-4. The average risk premium excluding the PRPM is 7.16%.

1		7.19% results in beta-adjusted equity risk premiums of 5.68% and 5.25% for the Natural
2		Gas and Electric Utility Proxy Groups, respectively.

| 3 | | *b.* | *The S&P Utility Index-Derived Risk Premium* |

4 **Q. HOW DID YOU DERIVE THE EQUITY RISK PREMIUM BASED ON THE S&P**

5   **UTILITY INDEX AND MOODY'S A2-RATE PUBLIC UTILITY BONDS?**

6 A.   I estimated three equity risk premiums based on S&P Utility Index holding period returns,

7   and one equity risk premium based on the expected returns of the S&P Utilities Index,

8   using *Value Line*, Bloomberg data, and S&P Capital IQ. Turning first to the S&P Utility

9   Index holding period returns, I derived a long-term monthly arithmetic mean equity risk

10   premium between the S&P Utility Index total returns of 10.59% and monthly Moody's A2-

11   rated public utility bond yields of 6.42% from 1928 to 2024, to arrive at an equity risk

12   premium of 4.16%.[31] I then used the same historical data to derive an equity risk premium

13   of 4.80% based on a regression of the monthly equity risk premiums. The final S&P Utility

14   Index holding period equity risk premium involved applying the PRPM using the historical

15   monthly equity risk premiums from January 1928 to February 2025 to arrive at a PRPM-

16   derived equity risk premium of 5.07% for the S&P Utility Index.

17   I then derived an expected total return on the S&P Utilities Index of 10.73% using

18   data from *Value Line,* Bloomberg, and S&P Capital IQ, and subtracted the prospective

19   Moody's A2-rated public utility bond yield of 5.73%.[32] This resulted in equity risk

20   premium of 5.00%. As with the market equity risk premiums, I averaged the four risk

21   premium based to arrive at my utility-specific equity risk premium of 4.76%.

---

[31]   As shown on line 1, page 9 of Exhibit DWD-4.
[32]   Derived on line 3, page 1 of Exhibit DWD-4.

Table 8: Summary of the Calculation of the Equity Risk Premium Using S&P Utility Index Holding Returns[33]

Historical Spread Between Total Returns of the S&P Utilities Index and A2-Rated Utility Bond Yields (1928 – 2024)	4.16%
Regression Analysis on Historical Data	4.80%
PRPM Analysis on Historical Data	5.07%
Prospective Equity Risk Premium using Measures of Capital Appreciation and Income Returns for the S&P Utilities Index less Projected A2 Utility Bond Yields	5.00%
Average	4.76%

c. Authorized Return-Derived Equity Risk Premium

Q. HOW DID YOU DERIVE AN EQUITY RISK PREMIUM OF 4.73% BASED ON AUTHORIZED ROES FOR NATURAL GAS DISTRIBUTION UTILITIES AND 4.77% FOR ELECTRIC UTILITIES?

A. The equity risk premium of 4.73% shown on page 10 of Exhibit DWD-4 and 4.77% shown on page 11 of Exhibit DWD-4 are the result of regression analyses based on regulatory awarded ROEs related to the yields on Moody's A2-rated public utility bonds and contains the graphical results of a regression analysis of 848 rate cases for natural gas distribution utilities and 1,257 rate cases for electric utilities which were fully litigated during the period from January 1, 1980 through February 28, 2025. It shows the implicit equity risk premium relative to the yields on A2-rated public utility bonds immediately prior to the issuance of each regulatory decision. It is readily discernible that there is an inverse relationship between the yield on A2-rated public utility bonds and equity risk premiums. In other words, as interest rates decline, the equity risk premium rises and vice versa, a result consistent with financial literature on the subject.[34] I used the regression results to estimate

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[33] As shown on page 9 of Exhibit DWD-4. The average equity risk premium excluding the PRPM is 4.65%.

[34] *See, e.g.,* Robert S. Harris and Felicia C. Marston, "The Market Risk Premium: Expectational Estimates Using Analysts' Forecasts", Journal of Applied Finance, Vol. 11, No. 1, 2001, at 11-12; Eugene F. Brigham, Dilip K. Shome, and Steve R. Vinson, "The Risk Premium Approach to Measuring a Utility's Cost of Equity", Financial Management, Spring 1985, at 33-45.

1   the equity risk premium applicable to the projected yield on Moody's A2-rated public

2   utility bonds. Given the expected A2-rated utility bond yield of 5.73%, it can be calculated

3   that the indicated equity risk premium applicable to that bond yield is 4.73% based on the

4   natural gas utilities and 4.77% based on electric utilities.

5 **Q. WHAT IS YOUR CONCLUSION OF EQUITY RISK PREMIUMS FOR USE IN**

6 **YOUR TOTAL MARKET APPROACH RPM?**

7 A.   The equity risk premium I applied to the Natural Gas Utility Proxy Group is 5.06% which

8   is the average of the beta-adjusted equity risk premium for the Natural Gas Utility Proxy

9   Group, the S&P Utilities Index, and the authorized return utility equity risk premium.

10
11 **Table 9: Summary of Conclusions for the Equity Risk Premium for the Natural Gas Utility Proxy Group[35]**

Beta-Adjusted Equity Risk Premium	5.68%
S&P Utilities Index Equity Risk Premium	4.76%
Authorized ROE Equity Risk Premium	4.73%
Average	5.06%

12   The equity risk premium I applied to the Electric Utility Proxy Group is 4.93% which is

13   the average of the beta-adjusted equity risk premium for the Electric Utility Proxy Group,

14   the S&P Utilities Index, and the authorized return utility equity risk premium.

15
16 **Table 10: Summary of Conclusions for the Equity Risk Premium for the Electric Utility Proxy Group[36]**

Beta-Adjusted Equity Risk Premium	5.25%
S&P Utilities Index Equity Risk Premium	4.76%
Authorized ROE Equity Risk Premium	4.77%
Average	4.93%

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[35] As shown on page 5 of Exhibit DWD-4. The average equity risk premium is 5.01% excluding the PRPM.
[36] As shown on page 5 of Exhibit DWD-4. The average equity risk premium is 4.88% excluding the PRPM.

1 **Q. WHAT IS THE INDICATED RPM COMMON EQUITY COST RATE BASED ON**

2 **THE TOTAL MARKET APPROACH?**

3 A. As shown on line 7 page 1 of Exhibit DWD-4, and shown on Tables 11 and 12, below, I

4 calculated a common equity cost rate of 10.86% for the Natural Gas Utility Proxy Group

5 and 10.79% for the Electric Utility Proxy Group based on the total market approach RPM.

6 **Table 11: Summary of the Total Market Return Risk Premium Model for the**
7 **Natural Gas Utility Proxy Group[37]**

Prospective Moody's Utility Bond Yield Applicable to the Utility Proxy Group	5.80%
Prospective Equity Risk Premium	5.06%
Indicated Cost of Common Equity	10.86%

8 **Table 12: Summary of the Total Market Return Risk Premium Model for the**
9 **Electric Utility Proxy Group[38]**

Prospective Moody's Utility Bond Yield Applicable to the Utility Proxy Group	5.86%
Prospective Equity Risk Premium	4.93%
Indicated Cost of Common Equity	10.79%

10

11 **C.** **The Capital Asset Pricing Model**

12 **Q. PLEASE EXPLAIN THE THEORETICAL BASIS OF THE CAPM.**

13 A. CAPM theory defines risk as the co-variability of a security's returns with the market's

14 returns as measured by the beta (β). A beta less than 1.0 indicates lower variability than

15 the market as a whole, while a beta greater than 1.0 indicates greater variability than the

16 market.

17 The CAPM assumes that all other risk (i.e., all non-market or unsystematic risk)

18 can be eliminated through diversification. The risk that cannot be eliminated through

19 diversification is called market, or systematic, risk. In addition, the CAPM presumes that

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[37] As shown on page 1 of Exhibit DWD-4. The RPM result excluding the PRPM is 10.81%.
[38] As shown on page 1 of Exhibit DWD-4. The RPM result excluding the PRPM is 10.74%.

investors require compensation only for systematic risk, which is the result of macroeconomic and other events that affect the returns on all assets. The model is applied by adding a risk-free rate of return to a market risk premium, which is adjusted proportionately to reflect the systematic risk of the individual security relative to the total market as measured by beta. The traditional CAPM model is expressed as:

$$R_s \quad = \quad R_f + \beta (R_m - R_f)$$

Where: $\quad R_s \quad = \quad$ Return rate on the common stock

$\quad R_f \quad = \quad$ Risk-free rate of return

$\quad R_m \quad = \quad$ Return rate on the market as a whole

$\quad \beta \quad = \quad$ Adjusted beta (volatility of the security relative to the market as a whole)

Numerous tests of the CAPM have measured the extent to which security returns and beta are related as predicted by the CAPM, confirming its validity. The empirical CAPM ("ECAPM") reflects the reality that while the results of these tests support the notion that the beta is related to security returns, the empirical Security Market Line ("SML") described by the CAPM formula is not as steeply sloped as the predicted SML.[39] The ECAPM reflects this empirical reality.

Q. PLEASE EXPLAIN THE THEORETICAL BASIS OF THE CAPM. WHY IS THE USE OF ECAPM APPROPRIATE IN DETERMINING THE ROE FOR THE COMPANIES?

A. The ECAPM is a well-established model that has been relied on in both academic and regulatory settings. Fama & French clearly state regarding Figure 2, below, that "[t]he returns on the low beta portfolios are too high, and the returns on the high beta portfolios are too low."[40]

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[39] Roger A. Morin, <u>Modern Regulatory Finance</u> (Public Utility Reports, Inc., 2021), at page 223 ("Morin").
[40] Eugene F. Fama and Kenneth R. French, "The Capital Asset Pricing Model: Theory and Evidence", Journal of Economic Perspectives, Vol. 18, No. 3, Summer 2004 at 33 ("Fama & French").

Average Annualized Monthly Return versus Beta for Value Weight Portfolios Formed on Prior Beta, 1928–2003

1
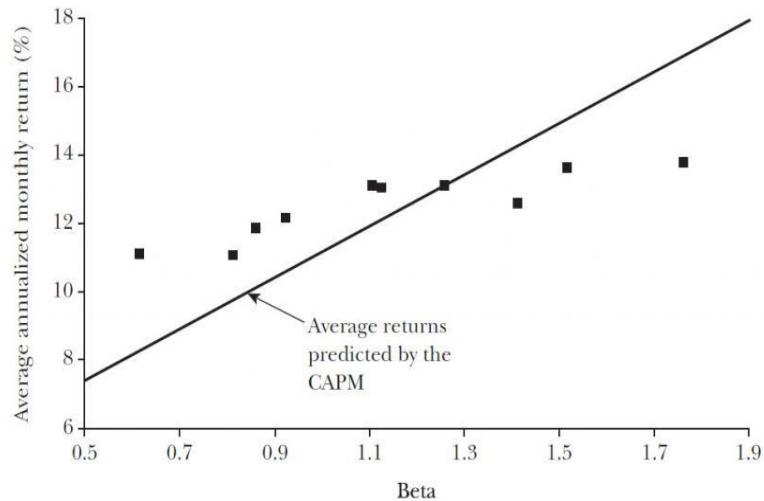
In addition, Morin observes that while the results of these tests support the notion that beta is related to security returns, the empirical SML described by the CAPM formula is not as steeply sloped as the predicted SML. Morin states:

> With few exceptions, the empirical studies agree that … low-beta securities earn returns somewhat higher than the CAPM would predict, and high-beta securities earn less than predicted.[41]

* * *

> Therefore, the empirical evidence suggests that the expected return on a security is related to its risk by the following approximation:

$$K = R_F + x\,\beta(R_M - R_F) + (1-x)\,\beta(R_M - R_F)$$

> where x is a fraction to be determined empirically. The value of x that best explains the observed relationship [is] Return = 0.0829 + 0.0520 β is between 0.25 and 0.30. If x = 0.25, the equation becomes:

$$K = R_F + 0.25(R_M - R_F) + 0.75\,\beta(R_M - R_F)[42]$$

Fama and French provide similar support for the ECAPM when they state:

> The early tests firmly reject the Sharpe-Lintner version of the CAPM. There is a positive relation between beta and average return, but it is too 'flat.'… The regressions consistently find that the intercept is greater than the average risk-free rate… and the coefficient on beta is less than the average

41   Morin, at 207.
42   Morin, at 221.

| 1 | | excess market return… This is true in the early tests… as well as in more |
| 2 | | recent cross-section regressions tests, like Fama and French (1992).[43] |

| 3 | | Finally, Fama and French further note: |

4 Confirming earlier evidence, the relation between beta and average return
5 for the ten portfolios is much flatter than the Sharpe-Linter CAPM predicts.
6 The returns on low beta portfolios are too high, and the returns on the high
7 beta portfolios are too low. For example, the predicted return on the
8 portfolio with the lowest beta is 8.3 percent per year; the actual return as
9 11.1 percent. The predicted return on the portfolio with the t beta is 16.8
10 percent per year; the actual is 13.7 percent.[44]
11
12 Clearly, the justification from Morin and Fama & French, along with their reviews

13 of other academic research on the CAPM, validate the use of the ECAPM. In view of

14 theory and practical research, I have applied both the traditional CAPM and the ECAPM

15 to the companies in the Utility Proxy Groups and averaged the results.

16 **Q. WHAT BETAS DID YOU USE IN YOUR CAPM ANALYSIS?**

17 A. With respect to beta, I considered two methods of calculation: (1) the average of the betas

18 of the respective proxy group companies as reported by Bloomberg, and (2) the average of

19 the betas of the respective proxy group companies as reported by *Value Line*. While both

20 of those services adjust their calculated (or "raw") betas to reflect the tendency of beta to

21 regress to the market mean of 1.00, *Value Line* calculates beta over a five-year period, while

22 Bloomberg's calculation is based on two years of data.

23 **Q. PLEASE DESCRIBE YOUR SELECTION OF A RISK-FREE RATE OF RETURN.**

24 A. As shown in Exhibit DWD-5, the risk-free rate adopted for applications of the CAPM is

25 4.55%. This risk-free rate is based on the average of the *Blue Chip* consensus forecast of

26 the expected yields on 30-year U.S. Treasury bonds for the six quarters ending with the

---

43   Fama & French, at 32.
44   Fama & French, at 33.

1		second calendar quarter of 2026, and long-term projections for the years 2026 to 2030 and
2		2031 to 2035.
3	Q.	**WHY DO YOU USE THE PROJECTED 30-YEAR TREASURY YIELD IN YOUR**
4		**ANALYSES?**
5	A.	The yield on long-term U.S. Treasury bonds is almost risk-free and its term is consistent
6		with the long-term cost of capital to public utilities measured by the yields on Moody's
7		A2-rated public utility bonds; the long-term investment horizon inherent in utilities'
8		common stocks; and the long-term life of the jurisdictional rate base to which the allowed
9		fair rate of return (i.e., cost of capital) will be applied. In contrast, short-term U.S. Treasury
10		yields are more volatile and largely a function of Federal Reserve monetary policy.
11	Q.	**PLEASE EXPLAIN THE ESTIMATION OF THE EXPECTED RISK PREMIUM**
12		**FOR THE MARKET USED IN YOUR CAPM ANALYSES.**
13	A.	The basis of the market risk premium is explained in detail in note 1 on page 3 of Exhibit
14		DWD-5. As discussed above, the market risk premium is derived from an average of three
15		historical data-based market risk premiums, one *Value Line* data-based market risk
16		premium, and one *Value Line*, Bloomberg, and S&P Capital IQ data-based market risk
17		premium.
18		The long-term income return on U.S. Government Securities of 4.99% was
19		deducted from the monthly historical total market return of 12.29%, which results in an
20		historical market equity risk premium of 7.31%.[45] I applied a linear OLS regression to the
21		monthly annualized historical returns on the S&P 500 relative to historical yields on long-
22		term U.S. Government Securities. That regression analysis yielded a market equity risk
23		premium of 7.94%. The PRPM market equity risk premium is 8.18% and is derived using

---

[45] Sources: <u>SBBI - 2023, at Appendix A-1 (1) through A-1 (3) and Appendix A-7 (19) through A-7 (21)</u>;
Bloomberg Professional.

| 1 | the PRPM relative to the yields on long-term U.S. Treasury securities from January 1926 |
| 2 | through February 2025. |

3   The *Value Line*-derived forecasted total market equity risk premium is derived by
4   deducting the forecasted risk-free rate of 4.55%, discussed above, from the *Value Line*
5   projected total annual market return of 11.20%, resulting in a forecasted total market equity
6   risk premium of 6.65%.

7   The S&P 500 projected market equity risk premium using *Value Line*, Bloomberg
8   and S&P Capital IQ data is derived by subtracting the projected risk-free rate of 4.55%
9   from the projected total return of the S&P 500 of 15.23%. The resulting market equity risk
10   premium is 10.68%.

11   These five market risk premiums, when averaged, result in an average total market
12   equity risk premium of 8.15%.[46]

13   **Table 13: Summary of the Calculation of the Market Risk Premium for Use in the**
14   **CAPM[47]**

Historical Spread Between Total Returns of Large Stocks and Long-Term Government Bond Yields (1926 – 2024)	7.31%
Regression Analysis on Historical Data	7.94%
PRPM Analysis on Historical Data	8.18%
Prospective Equity Risk Premium using Total Market Returns from *Value Line* Summary & Index less Projected 30-Year Treasury Bond Yields	6.65%
Prospective Equity Risk Premium using Measures of Capital Appreciation and Income Returns from for the S&P 500 less Projected 30-Year Treasury Bond Yields	10.68%
Average	8.15%

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[46]   The average market risk premium excluding the PRPM is 8.14%.
[47]   As shown on pages 1 and 2 of Exhibit DWD-5. The average market risk premium excluding the PRPM is 8.14%.

| 1 | **Q.** | **WHAT ARE THE RESULTS OF YOUR APPLICATION OF THE TRADITIONAL** |

Q. **WHAT ARE THE RESULTS OF YOUR APPLICATION OF THE TRADITIONAL AND EMPIRICAL CAPM TO THE UTILITY PROXY GROUP?**

A. As shown on page 1 of Exhibit DWD-5, the mean result of my CAPM/ECAPM analyses for the Natural Gas Utility Proxy Group is 11.10%, the median is 11.13%, and the average of the two is 11.12%. As shown on page 2 of Exhibit DWD-5, the mean result of my CAPM/ECAPM analyses for the Electric Utility Proxy Group is 10.79%, the median is 10.70%, and the average of the two is 10.75%. Consistent with my reliance on the average of mean and median DCF results discussed above, the indicated common equity cost rate using the CAPM/ECAPM is 11.12% for the Natural Gas Utility Proxy Group and 10.75% for the Electric Proxy Group.

D. **Common Equity Cost Rates for a Proxy Group of Domestic, Non-Price Regulated Companies Based on the DCF, RPM, and CAPM**

Q. **WHY DO YOU ALSO CONSIDER A PROXY GROUP OF DOMESTIC, NON-PRICE REGULATED COMPANIES?**

A. Although, I am not an attorney, my interpretation of the *Hope* and *Bluefield* cases is that they did not specify that comparable risk companies had to be utilities. Since the purpose of rate regulation is to be a substitute for marketplace competition, non-price regulated firms operating in the competitive marketplace make an excellent proxy if they are comparable in total risk to the utility proxy groups being used to estimate the cost of common equity. The selection of such domestic, non-price regulated competitive firms theoretically and empirically results in proxy groups which is comparable in total risk to the Utility Proxy Group, since all of these companies compete for capital in the exact same markets.

1	**Q.**	**HOW DID YOU SELECT NON-PRICE REGULATED COMPANIES THAT ARE**
2		**COMPARABLE IN TOTAL RISK TO THE UTILITY PROXY GROUP?**

3   A.   To select proxy groups of domestic, non-price regulated companies similar in total risk to

4   the Utility Proxy Groups, I relied on betas and related statistics derived from *Value Line*

5   regression analyses of weekly market prices over the most recent 260 weeks (i.e., five

6   years). As shown on Exhibit DWD-6, these selection criteria resulted in a proxy group of

7   49 domestic, non-price regulated firms comparable in total risk to the Natural Gas Utility

8   Proxy Group and 47 domestic, non-price regulated firms comparable in total risk to the

9   Electric Utility Proxy Group. Total risk is the sum of non-diversifiable market risk and

10   diversifiable company-specific risks. The criteria used in selecting the domestic, non-price

11   regulated firms was:

12   (i)   They must be covered by *Value Line* (Standard Edition);

13   (ii)   They must be domestic, non-price regulated companies, i.e., not utilities;

14   (iii)   Their unadjusted betas must lie within plus or minus two standard

15   deviations of the average unadjusted beta of the Utility Proxy Groups; and

16   (iv)   The residual standard errors of the *Value Line* regressions which gave rise

17   to the unadjusted betas must lie within plus or minus two standard

18   deviations of the average residual standard error of the Utility Proxy

19   Groups.

20   Betas measure market, or systematic, risk, which is not diversifiable. The residual

21   standard errors of the regressions measure each firm's company-specific, diversifiable risk.

22   Companies that have similar betas <u>and</u> similar residual standard errors resulting from the

23   same regression analyses have similar total investment risk.

1 **Q. DID YOU CALCULATE COMMON EQUITY COST RATES USING THE DCF**

2 **MODEL, THE RPM, AND THE CAPM FOR THE NON-PRICE REGULATED**

3 **PROXY GROUP?**

4 A.   Yes. Because the DCF model, RPM, and CAPM have been applied in an identical manner

5   as described above, I will not repeat the details of the rationale and application of each

6   model. One exception is in the application of the RPM, where I did not use public utility-

7   specific equity risk premiums.

8   Pages 2 and 3 of Exhibit DWD-7 derives the constant growth DCF model common

9   equity cost rate. As shown, the indicated common equity cost rate, using the constant

10   growth DCF for the Non-Price Regulated Proxy Group comparable in total risk to the

11   Utility Proxy Group, is 11.87% for the Natural Gas Utility Proxy Group and 11.17% for

12   the Electric Utility Proxy Group.

13   Pages 4 through 7 of Exhibit DWD-7 contain the data and calculations that support

14   the 12.27% RPM common equity cost rates for the Natural Gas Utility Proxy Group and

15   12.29% for the Electric Utility Proxy Group. As shown on line 1, page 4 of Exhibit DWD-

16   7, the consensus prospective yield on Moody's Baa2-rated corporate bonds for the six

17   quarters ending in the second quarter of 2026, and for the years 2026 to 2030 and 2031 to

18   2035, is 6.14%.[48] Since the Non-Price Regulated Proxy Group based on the Natural Gas

19   Utility Proxy Group has an average Moody's long-term issuer rating of A3/Baa1, it is

20   necessary to take a one-half downward adjustment (0.14%) of the 0.27% spread between

21   A and Baa2 corporate bond to reach an adjusted prospect bond yield of 6.01%. Since the

22   Non-Price Regulated Proxy Group based on the Electric Utility Proxy Group has an

23   average Moody's long-term issuer rating of A3, it is necessary to take a two-thirds

---

48   *Blue Chip Financial Forecasts*, November 27, 2024, at 2 and February 28, 2025, at 14.

1		downward adjustment (0.18%) of the 0.27% spread between A and Baa2 corporate bond to
2		reach an adjusted prospect bond yield of 5.96%.
3		When beta-adjusted risk premiums of 6.26% and 6.33%[49] relative to the Non-Price
4		Regulated Proxy Groups are added to the prospective A3/Baa1 and A3-rated corporate
5		bond yields of 6.01% and 5.96%, the indicated RPM common equity cost rates are 12.27%
6		and 12.29% based on the Natural Gas and Electric Non-Price Regulated Proxy Groups,
7		respectively.
8		Pages 8 and 9 of Exhibit DWD-7 contains the inputs and calculations that support
9		my indicated CAPM/ECAPM common equity cost rates of 11.75% and 11.74% based on
10		the Natural Gas and Electric Non-Price Regulated Proxy Groups, respectively.
11	Q.	**WHAT IS THE COST RATE OF COMMON EQUITY BASED ON THE NON-**
12		**PRICE REGULATED PROXY GROUP COMPARABLE IN TOTAL RISK TO THE**
13		**UTILITY PROXY GROUP?**
14	A.	As shown on page 1 of Exhibit DWD-7, the results of the common equity models applied
15		to the Non-Price Regulated Proxy Groups – which is comparable in total risk to the Utility
16		Proxy Groups – are as follows:

<p align="center">17
18   Table 14: Summary of Model Results Applied to the Non-Price Regulated Proxy Group[50]</p>

	Natural Gas	Electric
Discounted Cash Flow Model	11.87%	11.17%
Risk Premium Model	12.27%	12.29%
Capital Asset Pricing Model	11.75%	11.89%
Mean	11.96%	11.78%
Median	11.87%	11.89%
Average of Mean and Median	11.92%	11.84%

[49] Derived on page 7 of Exhibit DWD-7.
[50] As shown on page 1 of Exhibit DWD-7. The average of the mean and median results excluding the PRPM are 11.91% and 11.83% based on the Natural Gas and Electric Non-Price Regulated Proxy Groups, respectively.

1	The average of the mean and median of these models is 11.92% and 11.84% based on the
2	Natural Gas and Electric Non-Price Regulated Proxy Groups, respectively, which I used as
3	the indicated common equity cost rates for the Non-Price Regulated Proxy Groups.

VII. <u>CONCLUSION OF COMMON EQUITY COST RATE BEFORE ADJUSTMENTS</u>

Q. WHAT ARE THE INDICATED COMMON EQUITY COST RATES BEFORE ADJUSTMENTS?

A. The range of indicated ROEs produced from my analysis is from 10.29% (DCF model) to 11.92% (Non-Price Regulated Market Models), which is applicable to the Natural Gas Utility Proxy Group as shown on Exhibit DWD-1, page 2. The range of indicated ROEs produced from my analysis is from 10.32% (DCF model) to 11.84% (Non-Price Regulated Market Models), which is applicable to the Electric Utility Proxy Group as shown on Exhibit DWD-1, page 3. I used multiple cost of common equity models as primary tools in arriving at my recommended common equity cost rate, because no single model is so inherently precise that it can be relied on to the exclusion of other theoretically sound models. Using multiple models adds reliability to the estimated common equity cost rate, with the prudence of using multiple cost of common equity models supported in both the financial literature and regulatory precedent. In view of these results, I recommend a range of ROEs applicable to the Utility Proxy Groups between 10.29% and 11.92% based on the Natural Gas Utility Proxy Group and 10.32% and 11.84% based on the Electric Utility Proxy Group. As previously noted, whether or not the PRPM is excluded from the analytical models does not have a material effect on my recommended range.

As will be discussed below, LGE and KU have unique company-specific risk factors relative to the Utility Proxy Groups. Because of this, the indicated range of model

| 1 | results based on the Utility Proxy Groups must be adjusted to reflect LGE's and KU's |

1   results based on the Utility Proxy Groups must be adjusted to reflect LGE's and KU's

2   relative risk.

3   **VIII.   ADJUSTMENTS TO THE COMMON EQUITY COST RATE**

4   **Q.   DID THE COMMISSION REJECT RELATIVE RISK ADJUSTMENTS TO THE**

5   **ROE IN PRIOR CASES?**

6   A.   Yes, it did. In Case No. 2021-00214 concerning Atmos Energy the Commission stated:

7   The Commission reiterates that it continues to reject use of flotation cost
8   adjustments, financial risk adjustments, and size adjustments in the ROE
9   analyses.[51]

10   In Case No. 2022-00432 the Commission stated:

11   Additionally, the Commission further reiterates that it continues to reject
12   the use of flotation cost adjustments, financial risk adjustments and explicit
13   size adjustments in the ROE analyses considering a business risk or size
14   adjustment has not be approved in the past and the Commission agrees with
15   the Attorney General on that matter.[52]

16   **Q.   DO YOU HAVE A RESPONSE TO THE COMMISSION'S STATEMENT?**

17   A.   Yes, I do. I respectfully disagree with the Commission's rejection of company-specific

18   risk adjustments as stated in their Final Orders in Case Nos. 2021-00214 and in Case No.

19   2022-00432. As will be explained in detail below, the adjustments applied to the indicated

20   range of ROEs applicable to the Utility Proxy Group to reflect the Companies' specific

21   risks are academically and empirically supported.

22   **Q.   DOES THE COMMISSION IMPLICITLY CONSIDER A COMPANY'S UNIQUE**

23   **RISKS IN DETERMINING THEIR ROE?**

24   A.   Yes, it does. In Case No. 2021-00214 the Commission stated:

25   An ROE of 9.23 percent is lower than recent Commission awards for gas

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[51] *Electronic Application of Atmos Energy Corporation for an Adjustment of Rates, Kentucky Public Service Commission*, Kentucky Public Service Commission, Final Order, Case No. 2021-00214, May 19, 2022, at 48.

[52] *Electronic Application of Bluegrass Water Utility Operating Company, LLC for an Adjustment of Sewage Rates*, Kentucky Public Service Commission, Final Order, Case No. 2022-00432, February 14, 2024, at 91.

utilities, but those awards were tied to stay-out clauses **for a utility that is significantly smaller**, rural and had not requested a rate increase for over ten years. Additionally, in deciding upon the approved ROE, the Commission is also balancing the recent destruction due to the devastating tornadoes and customer bill impact during the region's recovery, **as well as the still high equity percentage**. (emphasis added)[53]

While this Commission does not specifically assign basis points to a company's unique risks as compared to a proxy group, they are clearly considered in the above passage.

A. Size Adjustment

Q. DOES LGE'S AND KU'S SMALLER SIZE RELATIVE TO THE UTILITY PROXY GROUP COMPANIES INCREASE THEIR BUSINESS RISK?

A. Yes. LGE's and KU's smaller size relative to the Utility Proxy Group companies indicates greater relative business risk for the Company because, all else being equal, size has a material bearing on risk.

Size affects business risk because smaller companies generally are less able to cope with significant events that affect sales, revenues and earnings. For example, smaller companies face more risk exposure to business cycles and economic conditions, both nationally and locally. Additionally, the loss of revenues from a few larger customers would have a greater effect on a small company than on a bigger company with a larger, more diverse, customer base.

Investors generally demand greater returns from smaller firms to compensate for less marketability and liquidity of their securities. Kroll discusses the nature of the small-size phenomenon, providing an indication of the magnitude of the size premium based on

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[53] *Electronic Application of Atmos Energy Corporation for an Adjustment of Rates, Kentucky Public Service Commission*, Kentucky Public Service Commission, Final Order, Case No. 2021-00214, May 19, 2022, at 48.

| 1 | several measures of size. In discussing "Size as a Predictor of Equity Premiums," Kroll |
| 2 | states: |

3	The size effect is based on the empirical observation that companies of
4	smaller size are associated with greater risk and, therefore, have greater cost
5	of capital [sic]. The "size" of a company is one of the most important risk
6	elements to consider when developing cost of equity capital estimates for
7	use in valuing a business simply because size has been shown to be a
8	*predictor* of equity returns. In other words, there is a significant (negative)
9	relationship between size and historical equity returns - as size *decreases*,
10	returns tend to *increase*, and vice versa. (footnote omitted) (emphasis in
11	original)[54]

| 12 | Furthermore, in "The Capital Asset Pricing Model: Theory and Evidence," Fama |

| 13 | and French note size is indeed a risk factor which must be reflected when estimating the |

| 14 | cost of common equity. On page 38, they note: |

15	. . . the higher average returns on small stocks and high book-to-market
16	stocks reflect unidentified state variables that produce undiversifiable risks
17	(covariances) in returns not captured in the market return and are priced
18	separately from market betas.[55]

| 19 | Based on this evidence, Fama and French proposed their three-factor model which |

| 20 | includes a size variable in recognition of the effect size has on the cost of common equity. |

| 21 | Also, it is a basic financial principle that the use of funds invested, and not the |

| 22 | source of funds, is what gives rise to the risk of any investment.[56] Eugene Brigham, a well- |

| 23 | known authority, states: |

24	A number of researchers have observed that portfolios of small-firms (sic)
25	have earned consistently higher average returns than those of large-firm
26	stocks; this is called the "small-firm effect." On the surface, it would seem
27	to be advantageous to the small firms to provide average returns in a stock
28	market that are higher than those of larger firms. In reality, it is bad news
29	for the small firm; **what the small-firm effect means is that the capital**

[54] Kroll, Cost of Capital Navigator: U.S. Cost of Capital Module, Size as a Predictor of Returns, at 1.
[55] Eugene F. Fama and Kenneth R. French, "The Capital Asset Pricing Model: Theory and Evidence," *Journal of Economic Perspectives*, Volume 18, Number 3, Summer 2004, at 25-43.
[56] Brealey, Richard A. and Myers, Stewart C., Principles of Corporate Finance (McGraw-Hill Book Company, 1996), at 204-205, 229.

1   **market demands higher returns on stocks of small firms than on**
2   **otherwise similar stocks of the large firms**. (emphasis added)[57]

3   Consistent with the financial principle of risk and return discussed above, increased

4   relative risk due to small size must be considered in the allowed rate of return on common

5   equity. Therefore, the Commission's authorization of a cost rate of common equity in these

6   proceedings must appropriately reflect the unique risks of LGE and KU, including their

7   small size, which is justified and supported above by evidence in the financial literature.

8   **Q.   IS THERE A WAY TO QUANTIFY A RELATIVE RISK ADJUSTMENT DUE TO**

9   **LGE'S AND KU'S SMALL SIZE RELATIVE TO THE UTILITY PROXY GROUP?**

10 A.   Yes. LGE and KU have greater relative risk than the average utility in the Utility Proxy

11 Groups because of its smaller size compared with the utilities in that group, as measured

12 by an estimated market capitalization of common equity for LGE and KU.

13 **Table 15: Size as Measured by Market Capitalization for the Companies and the**
14 **Utility Proxy Groups**

	Market Capitalization* ($ Millions)	Times Greater than The Company
Louisville Gas & Electric – Gas	$1,174.887	
Natural Gas Utility Proxy Group	$4,721.136	4.0x
Louisville Gas & Electric – Electric	$3,970.346	2.6x
Kentucky Utilities Operations	$6,462.402	4.2x
Electric Utility Proxy Group	$16,525.930	
*From page 1 of Exhibit DWD-8.		

[57]   Brigham, Eugene F., <u>Fundamentals of Financial Management, Fifth Edition</u> (The Dryden Press, 1989), at 623.

1   LGE's estimated market capitalization was \$1.175 billion[58] as of February 28, 2025

2   for its natural gas operations and \$3.970 billion[59] for its electric operations. KU's estimated

3   market capitalization was \$6.462 billion[60] as of February 28, 2025. The market

4   capitalizations of the median company in the Natural Gas and Electric Utility Proxy Groups

5   are \$4.721 billion and \$16.526 billion as of February 28, 2025, respectively. The average

6   company in the Natural Gas Utility Proxy Group has a market capitalization 4.0 times the

7   size of LGE's estimated market capitalization and the average company in the Electric

8   Utility Proxy Group has a market capitalization 4.2 times the size of LGE's and 2.6 times

9   the size of KU's.

10   As a result, it is necessary to upwardly adjust the range of indicated common equity

11   cost rates to reflect the Companies' greater risk due to their smaller relative size. The

12   determination is based on the size premiums for portfolios of New York Stock Exchange,

13   American Stock Exchange, and NASDAQ listed companies ranked by deciles for the 1926

14   to 2024 period. The median size premium for the Natural Gas Utility Proxy Group with a

15   market capitalization of \$4.721 billion falls in the 4th decile and the median size premium

16   for the Electric Utility Proxy Group with a market capitalization of \$16.526 billion falls in

17   the 2nd decile. LGE's estimated natural gas market capitalization of \$1.175 billion places it

18   in the 7th decile, LGE's estimated electric market capitalization of \$3.970 billion places it

19   in the 5th decile, and KU's estimated electric market capitalization of \$6.462 billion places

20   it in the 4th decile. The size premium spread between the 4th decile and the 7th decile is

21   0.75%. The size premium spread between the 2nd decile and the 4th and 5th deciles is 0.18%

---

[58]   \$1,376,562,199 (requested rate base) * 52.93% (proposed capital structure) * 162.3% (market-to-book ratio of the Natural Gas Utility Proxy Group) as demonstrated on page 2 of Exhibit DWD-8.
[59]   \$3,626,678,121 (requested rate base) * 52.93% (proposed capital structure) * 200.6% (market-to-book ratio of the Electric Utility Proxy Group) as demonstrated on page 2 of Exhibit DWD-8.
[60]   \$5,965,326,053 (requested rate base) * 52.86% (proposed capital structure) * 200.6% (market-to-book ratio of the Electric Utility Proxy Group) as demonstrated on page 2 of Exhibit DWD-8.

1   and 0.49%, respectively. Even though a 0.18% to 0.75% upward size adjustment is

2   indicated, I conservatively applied a size premium of 0.05% for KU, 0.10% for LGE's

3   electric operations, and 0.15% for LGE's natural gas operations to the Companies' range

4   of indicated common equity cost rates.

5   **Q.   SHOULD THE COMMISSION CONSIDER LGE'S AND KU'S OPERATIONS AS**

6   **A STAND-ALONE COMPANIES?**

7   A.   Yes, it should. Because it is LGE's and KU's Kentucky rate base to which the overall rates

8   of return set forth in these proceedings will be applied, they should be evaluated as stand-

9   alone entities. To do otherwise would be discriminatory, confiscatory, and inaccurate. It

10   is also a basic financial precept that the use of the funds invested give rise to the risk of the

11   investment. As Brealey and Myers state:

12   *The true cost of capital depends on the use to which the capital is put.*

13   ***

14   ***Each project should be evaluated at its own opportunity cost of capital;***
15   ***the true cost of capital depends on the use to which the capital is put***.
16   (italics and bold in original) [61]

17   Morin confirms Brealey and Myers when he states:

18   Financial theory clearly establishes that the cost of equity is the risk-
19   adjusted opportunity cost of the investors and not the cost of the specific
20   capital sources employed by the investors. The true cost of capital depends
21   on the use to which the capital is put and not on its source. The Hope and
22   Bluefield doctrines have made clear that the relevant considerations in
23   calculating a company's cost of capital are the alternatives available to
24   investors and the returns and risks associated with those alternatives.[62]

25   Additionally, Levy and Sarnat state:

26   The firm's cost of capital is the discount rate employed to discount the firm's
27   average cash flow, hence obtaining the value of the firm. It is also the
28   weighted average cost of capital, as we shall see below. The weighted

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[61]   Richard A. Brealey and Stewart C. Myers, <u>Principles of Corporate Finance,</u> McGraw-Hill, Third Edition, 1988, at 173, 198.
[62]   Morin, at 581.

1 average cost of capital should be employed for project evaluation… only
2 in cases where the risk profile of the new projects is a "carbon copy" of the
3 risk profile of the firm.[63]

4   Although Levy and Sarnat discuss a project's cost of capital relative to a firm's cost

5 of capital, these principles apply equally to the use of a proxy group-based cost of capital.

6 Each company must be viewed on its own merits, regardless of the source of its equity

7 capital. As *Bluefield* clearly states:

8   A public utility is entitled to such rates as will permit it to earn a return on
9   the value of the property which it employs for the convenience of the public
10   equal to that generally being made at the same time and in the same general
11   part of the country on investments in other business undertakings which are
12   attended by corresponding risks and uncertainties; [64]

13   In other words, it is the "risks and uncertainties" surrounding the property employed

14 for the "convenience of the public" which determines the appropriate level of rates. In

15 these proceedings, the property employed "for the convenience of the public" is the rate

16 base of LGE's and KU's Kentucky operations. Thus, it is only the risk of investment in

17 LGE's and KU's Kentucky operations that is relevant to the determination of the cost of

18 common equity to be applied to the common equity-financed portion of that rate base.

19   In addition, in the Fama and French article previously cited, the authors[65] proposed

20 that their three-factor model include the SMB (Small Minus Big) factor, which indicates

21 that small capitalization firms are more risky than large capitalization firms, confirming

22 that size is a risk factor which must be taken into account in estimating the cost of common

23 equity.

24   Consistent with the financial principle of risk and return discussed previously, and

25 the stand-alone nature of ratemaking, an upward adjustment must be applied to the

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[63] Haim Levy & Marshall Sarnat, Capital Investment and Financial Decisions, Prentice/Hall International, 1986, at 465.
[64] *Bluefield*, at 6.
[65] Fama & French, at 39.

1   indicated cost of common equity derived from the cost of equity models of the proxy

2   groups used in these proceedings.

3 Q.   **HAVE YOU CONDUCTED STUDIES TO DETERMINE IF SIZE AND RISK FOR**

4   **UTILITIES IS RELATED?**

5 A.   Yes. I have performed two studies which link size and risk for utilities and show that utility

6   companies become riskier as their size decreases. The first study included the universe of

7   electric, gas, and water companies included in *Value Line* Standard Edition. I calculated

8   the annualized volatility (a measure of risk) for each of the utilities and relied on the current

9   market capitalization (a measure of size) as reported by *Value Line* for each company.

10   After ranking the companies by size (largest to smallest) and risk (least risky to most risky),

11   I made a scatter plot of the data, as shown on Chart 1, below:

12   **Chart 1: Relationship Between Size and Risk**
13   **for the *Value Line* Universe of Utility Companies[66]**

Chart showing Risk Rank (Annualized Volatility) on the y-axis and Size Rank (Market Capitalization) on the x-axis.

$$y = 0.6261x + 10.469$$
$$R^2 = 0.3919$$
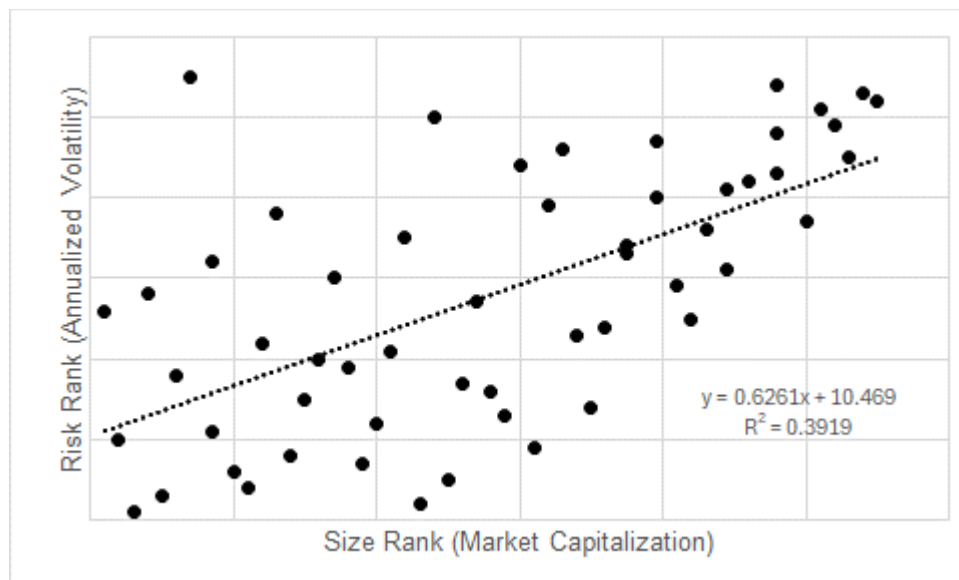
14

15   As shown in Chart 1 above, as company size decreases (increasing size rank), the

16   annualized volatility increases, linking size and risk for utilities, which is significant at

17   95.0% confidence level.

---

[66]   Source: *Value Line*.

1   The second study used the same universe of companies, but instead of using

2   annualized volatility, I used the *Value Line* Safety Ranking, which is another measure of

3   total risk.[67]   After ranking the companies by size and Safety Ranking, I made a scatterplot

4   of those data, as shown on Chart 2, below.

5   **Chart 2: Relationship Between Size and Safety Ranking for the**
6   ***Value Line* Universe of Utility Companies[68]**

7

8   Similar to the first study, as company size decreases, Safety Ranking degrades,

9   indicating a link between size and risk for utilities. This study is also significant at the 95%

10   confidence level.

11   In view of the evidence in the academic literature regarding the presence of the size

12   premium and the empirical evidence of a link between size and risk for utility companies,

13   I strongly urge the Commission to reconsider its position on granting premiums for small

14   relative size.

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[67]   *Value Line* also ranks stocks for Safety by analyzing the total risk of a stock compared to the approximately 1,700 stocks in the *Value Line* universe. Each of the stocks tracked in the *Value Line Investment Survey* is ranked in relationship to each other, from 1 (the highest rank) to 5 (the lowest rank). Safety is a quality rank, not a performance rank, and stocks ranked 1 and 2 are most suitable for conservative investors; those ranked 4 and 5 will be more volatile. Volatility means prices can move dramatically and often unpredictably, either down or up. The major influences on a stock's Safety rank are the company's financial strength, as measured by balance sheet and financial ratios, and the stability of its price over the past five years.

[68]   Source: *Value Line*.

1   **B.   Credit Risk Adjustment**

2   **Q.   PLEASE DISCUSS YOUR PROPOSED CREDIT RISK ADJUSTMENT.**

3   A.   LGE's and KU's long-term issuer ratings are A3 and A- from Moody's and S&P,

4   respectively. The average long-term ratings for the Natural Gas Utility Proxy Group are

5   similarly of A3 and A- from Moody's and S&P, respectively.[69] As such, no credit risk

6   adjustment is necessary as it relates to the Natural Gas Utility Proxy Group. The average

7   long-term ratings for the Electric Utility Proxy Group are Baa1 and A- from Moody's and

8   S&P, respectively.[70] Hence, a downward credit risk adjustment is necessary to reflect the

9   less risky credit rating, i.e., A3, of LGE and KU relative to the Baa1 average Moody's bond

10   rating of the Electric Utility Proxy Group.[71]

11   An indication of the magnitude of the necessary downward adjustment to reflect

12   the lower credit risk inherent in an A3 bond rating is one-third of a recent three-month

13   average spread between Moody's Baa2 and A2-rated public utility bond yields of 0.20%,

14   shown on page 2 of Exhibit DWD-1, or 0.07%.[72]

15   **Q.   WHY IS IT IMPORTANT THAT YOU MAKE A CREDIT RISK ADJUSTMENT?**

16   A.   It is important to reflect a company's relative financial risk, as companies with riskier bond

17   ratings have a higher risk of default, and because of that, equity investors would require a

18   higher return on their investment. To illustrate the risk of default related to changes in

19   bond rating, Chart 3 below presents Moody's Idealized Cumulative Expected Default Rates

20   for debt obligations with maturities lasting 30-years based on the respective rating.

---

[69]   Source of Information: S&P Capital IQ.
[70]   Source of Information: S&P Capital IQ.
[71]   As shown on page 3 of Exhibit DWD-4.
[72]   1/3 * 0.20% = 0.07%.

**Chart 3: Moody's Idealized Cumulative Expected Default Rates Based on Debt
Obligations with 30-Year Maturities**
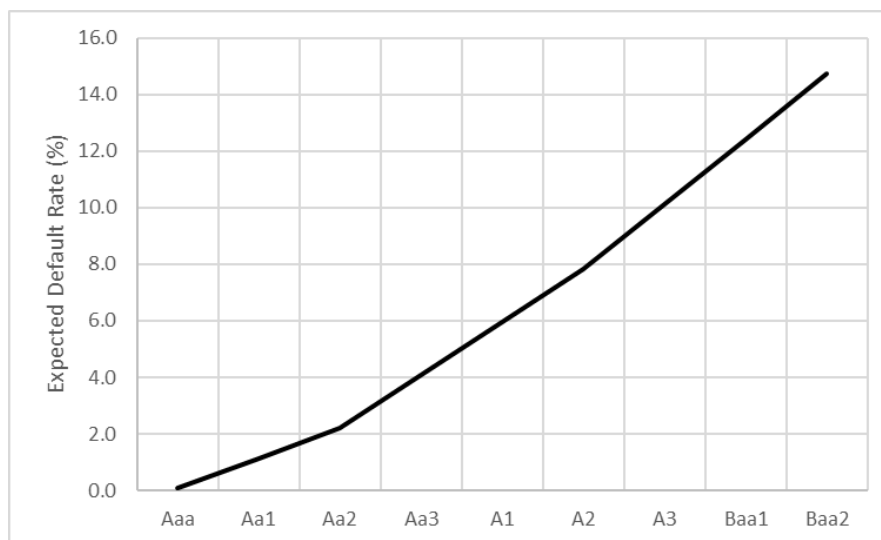
As shown in Chart 3, Moody's notes an observable difference in the default rates based on each respective rating. Therefore, even though credit ratings might be similar, the default rates indicate that different ratings equate to different risks.

C.   Flotation Cost Adjustment

Q.   WHAT ARE FLOTATION COSTS?

A.   Flotation costs are those costs associated with the sale of new issuances of common stock. They include market pressure and the mandatory unavoidable costs of issuance (*e.g.*, underwriting fees and out-of-pocket costs for printing, legal, registration, etc.). For every dollar raised through debt or equity offerings, the Company receives less than one full dollar in financing.

Q.   WHY IS IT IMPORTANT TO RECOGNIZE FLOTATION COSTS IN THE ALLOWED COMMON EQUITY COST RATE?

A.   It is important because there is no other mechanism in the ratemaking paradigm through which such costs can be recognized and recovered. Because these costs are real, necessary, and legitimate, recovery of these costs should be permitted. As noted by Morin:

1		The costs of issuing these securities are just as real as operating and
2		maintenance expenses or costs incurred to build utility plants, and fair
3		regulatory treatment must permit recovery of these costs….
4		The simple fact of the matter is that common equity capital is not
5		free….[Flotation costs] must be recovered through a rate of return
6		adjustment.[73]

7 **Q.   SHOULD FLOTATION COSTS BE RECOGNIZED ONLY IF THERE WAS AN**

8 **ISSUANCE DURING THE TEST YEAR OR THERE IS AN IMMINENT POST-**

9 **TEST YEAR ISSUANCE OF ADDITIONAL COMMON STOCK?**

10 A.   No. As noted above, there is no mechanism to recapture such costs in the ratemaking

11 paradigm other than an adjustment to the allowed common equity cost rate. Flotation costs

12 are charged to capital accounts and are not expensed on a utility's income statement. As

13 such, flotation costs are analogous to capital investments, albeit negative, reflected on the

14 balance sheet. Recovery of capital investments relates to the expected useful lives of the

15 investment. Since common equity has a very long and indefinite life (assumed to be

16 infinity in the standard regulatory DCF model), flotation costs should be recovered through

17 an adjustment to common equity cost rate, even when there has not been an issuance during

18 the test year, or in the absence of an expected imminent issuance of additional shares of

19 common stock.

20 Historical flotation costs are a permanent loss of investment to the utility and should

21 be accounted for. When any company, including a utility, issues common stock, flotation

22 costs are incurred for legal, accounting, printing fees and the like. For each dollar of issuing

23 market price, a small percentage is expensed and is permanently unavailable for investment

24 in utility rate base. Since these expenses are charged to capital accounts and not expensed

25 on the income statement, the only way to restore the full value of that dollar of issuing price

---

[73]   Morin, at 329.

1		with an assumed investor required return of 10% is for the net investment, $0.95, to earn
2		more than 10% to net back to the investor a fair return on that dollar. In other words, if a
3		company issues stock at $1.00 with 5% in flotation costs, it will net $0.95 in investment.
4		Assuming the investor in that stock requires a 10% return on his or her invested $1.00 (i.e.,
5		a return of $0.10), the company needs to earn approximately 10.5% on its invested $0.95
6		to receive a $0.10 return.
7	**Q.**	**DO THE COMMON EQUITY COST RATE MODELS YOU HAVE USED**
8		**ALREADY REFLECT INVESTORS' ANTICIPATION OF FLOTATION COSTS?**
9	A.	No. All of these models assume no transaction costs. The literature is quite clear that these
10		costs are not reflected in the market prices paid for common stocks. For example, Brigham
11		and Daves confirm this and provide the methodology utilized to calculate the flotation
12		adjustment.[74] In addition, Morin confirms the need for such an adjustment even when no
13		new equity issuance is imminent.[75] Consequently, it is proper to include a flotation cost
14		adjustment when using cost of common equity models to estimate the common equity cost
15		rate.
16	**Q.**	**CAN YOU PROVIDE AN EXAMPLE OF WHY THE ROE MUST INCLUDE**
17		**FLOTATION COSTS TO REALIZE ITS REQUIRED RETURN?**
18	A.	Yes, I can. As shown in Exhibit DWD-9, because of flotation costs, an authorized return
19		of 10.85% would be required to realize an ROE of 10.75% (i.e., a 10-basis point flotation
20		cost adjustment). If flotation costs are not recovered, the growth rate falls and the ROE
21		decreases to 10.65% (i.e., below the required return).[76]

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[74] Eugene F. Brigham and Phillip R. Daves, Intermediate Financial Management, 9th Edition,
       Thomson/Southwestern, at 342.
[75] Morin, at 337-339.
[76] Exhibit DWD-9 is provided for illustrative purposes only. Please note that I have not relied on the results
       of the analysis in determining my recommended ROE or range.

	Q.	**HOW DID YOU CALCULATE THE FLOTATION COST ALLOWANCE?**

1   Q.   **HOW DID YOU CALCULATE THE FLOTATION COST ALLOWANCE?**

2   A.   I modified the DCF calculation to provide a dividend yield that would reimburse investors

3   for issuance costs in accordance with the method cited in literature by Brigham and Daves,

4   as well as by Morin. The flotation cost adjustment recognizes the actual costs of issuing

5   equity that were incurred by PPL in its equity issuances. Based on the issuance costs shown

6   on page 1 of Exhibit DWD-10, an adjustment of 0.15% is required to reflect the flotation

7   costs applicable to the Utility Proxy Group.

8   Q.   **PLEASE SUMMARIZE YOUR ADJUSTMENTS TO THE INDICATED RANGES**

9   **OF ROES APPLICABLE TO THE UTILITY PROXY GROUPS.**

10 A.   The summary of my adjustments to the indicated ranges of the ROEs applicable to the

11   Utility Proxy Groups are as follows:

12   **Table 16: Summary of Adjustments to the Indicated Ranges of ROEs Applicable to**
13   **the Utility Proxy Groups**

	Louisville Gas & Electric		Kentucky Utilities
	Natural Gas	Electric	Electric
Indicated Range Before Adjustment	10.29% - 11.92%	10.32% - 11.84%	10.32% - 11.84%
Size Adjustment	0.15%	0.10%	0.05%
Credit Risk Adjustment	0.00%	-0.07%	-0.07%
Flotation Cost Adjustment	0.15%	0.15%	0.15%
Indicated Range After Adjustment	10.59% - 12.22%	10.51% - 12.03%	10.46% - 11.98%

14   As shown on Table 16, the range of ROEs applicable to the Companies are between

15   10.59% and 12.22% for the Natural Gas Utility Proxy Group and 10.46% and 11.98% (KU)

16   and 10.51% and 12.03% (LGE) for the Electric Utility Proxy Group.

1 **D.** **Other Considerations**

2 **Q.** **PLEASE BRIEFLY SUMMARIZE THE COMPANY'S CAPITAL INVESTMENT**

3 **PLANS.**

4 A.   LGE and KU currently plan to invest approximately $3.85 billion and $3.53 of additional

5   capital over the 2025-2027 period, respectively,[77] which represents approximately 58.8%

6   and 42.3% of its 2024 net utility plant, respectively.[78] That amount includes investments

7   required to support increasing growth, and to maintain safe, sufficient, and reliable service

8   in both its transmission and distribution facilities. Growth in the Company's service

9   territory is substantially driven by projected demand from data centers. The Kentucky

10   General Assembly supports the growth in data centers, noting "the inducement of the

11   location of data center projects within the Commonwealth is of paramount importance to

12   the economic well-being of the Commonwealth."[79] The gray line in Chart 4, below,

13   represents the current combined load forecast of LGE and KU, which shows a substantial

14   increase in load in the coming decade.

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[77]   PPL Corporation SEC Form 10-K for the Fiscal Year Ended December 31, 2024, at 51.
[78]   Source: PPL Corporation SEC Form 10-K for the Fiscal Year Ended December 31, 2024, at 86 and 92.
[79]   Kentucky Statute 154.20-222(3), Purposes -- Legislative findings and declarations.

1 **Chart 4: Louisville Gas & Electric and Kentucky Utilities Load Forecast[80]**
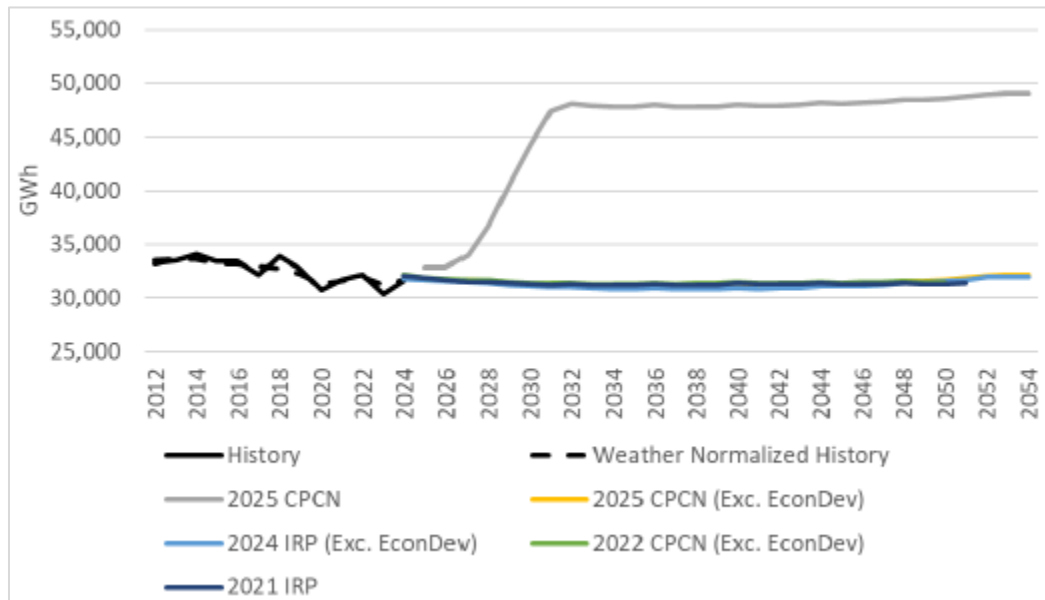
3 Meeting the projected growth in LGE's and KU's service territory will require significant

4 investment in new supply resources and infrastructure.

5 The Companies will require continued access to the capital markets at reasonable

6 terms to finance its capital spending plan. As the Companies move forward with their

7 capital spending plan, timely recovery of its capital costs is critical to mitigate the delay of

8 capital recovery and execute its capital spending program.

9 **Q. DO SUBSTANTIAL CAPITAL EXPENDITURES DIRECTLY RELATE TO A**

10 **UTILITY BEING ALLOWED THE OPPORTUNITY TO EARN A RETURN**

11 **ADEQUATE TO ATTRACT CAPITAL AT REASONABLE TERMS?**

12 A. Yes, they do. The allowed ROE should enable the subject utility to finance capital

13 expenditures and working capital requirements at reasonable rates and to maintain its

14 financial integrity in a variety of economic and capital market conditions. As discussed

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80 Wilson Direct Testimony, Exhibit SAW-1, *Electronic Application of Kentucky Utilities Company and Louisville Gas and Electric Company for the Certificates of Public Convenience and Necessity and Site Compatibility Certificates*, Kentucky Public Service Commission, Case No. 2025-00045, February 28, 2025, at 5.

1 throughout my direct testimony, a return adequate to attract capital at reasonable terms

2 enables the utility to provide safe, reliable service while maintaining its financial

3 soundness. To the extent a utility is provided the opportunity to earn its market-based cost

4 of capital, neither customers nor shareholders should be disadvantaged. These

5 requirements are of particular importance to a utility when it is engaged in a substantial

6 capital expenditure program.

7 The ratemaking process is predicated on the principle that, for investors and

8 companies to commit the capital needed to provide safe and reliable utility services, the

9 utility must have the opportunity to recover the return of, and the market-required return

10 on, invested capital. Regulatory commissions recognize that because utility operations are

11 capital intensive, regulatory decisions should enable the utility to attract capital at

12 reasonable terms; doing so balances the long-term interests of the utility and its ratepayers.

13 Further, the financial community carefully monitors the current and expected

14 financial conditions of utility companies, as well as the regulatory environment in which

15 those companies operate. In that respect, the regulatory environment is one of the most

16 important factors considered in both debt and equity investors' assessments of risk. That

17 is especially important during periods in which the utility expects to make significant

18 capital investments and, therefore, may require access to capital markets.

19 **Q. DO CREDIT RATING AGENCIES RECOGNIZE RISK ASSOCIATED WITH**

20 **INCREASED CAPITAL EXPENDITURES?**

21 A. Yes, they do. From a credit perspective, the additional pressure on cash flows associated

22 with high levels of capital expenditures exerts corresponding pressure on credit metrics

23 and, therefore, credit ratings. Specifically, S&P notes, "Given our expectations for

1   continued increasing capital spending over the next decade, we expect financial

2   performance and credit quality will continue to be pressured.”[81]

3   The rating agency views noted above also are consistent with certain observations

4   discussed in my direct testimony: (1) the benefits of maintaining a strong financial profile

5   are significant when capital access is required and become particularly acute during periods

6   of market instability; and (2) the Commission’s decision in these proceedings will have a

7   direct bearing on the Company’s credit profile and its ability to access the capital needed

8   to fund its investments.

9   **Q.   DOES ELEVATED LEVELS OF INFLATION INCREASE RISK AS IT PERTAINS**

10   **TO THE COMPANY’S CAPITAL EXPENDITURE PLAN?**

11   A.   Yes. Increased inflation increases risk for the Company in two ways: (1) the costs to make

12   capital expenditures (*e.g.*, raw materials, labor) will increase, leading the Company to go

13   to the market to raise larger amounts of capital as it would otherwise do in a non-

14   inflationary environment; and (2) as inflation is positively correlated to capital costs, the

15   financing of the increased costs will be more expensive than it would be in a non-

16   inflationary environment.

17   **Q.   HOW DO THE COMPANIES’ EXPECTED CAPITAL EXPENDITURES**

18   **COMPARE TO THE UTILITY PROXY GROUP?**

19   A.   To reasonably make that comparison, I calculated the ratio of expected capital expenditures

20   to net plant for each company in the Utility Proxy Group. I performed that calculation

21   using LGE’s and KU’s projected capital expenditures during 2025 through 2027 relative

22   to its net plant for the year ended December 31, 2024. As shown in Exhibit DWD-11 and

23   Chart 5, below, the companies have ratios of projected capital expenditures to net plant

---

[81]   S&P Global Ratings, Industry Credit Outlook 2025: North America Regulated Utilities, January 14, 2025, at 10.

1   relative to the Natural Gas and Electric Utility Proxy Groups, approximately 25% (KU)

2   and 74% (LGE) higher than the median of the proxy companies.

3   **Chart 5: Capital Expenditures to Net Plant[82]**

4
5
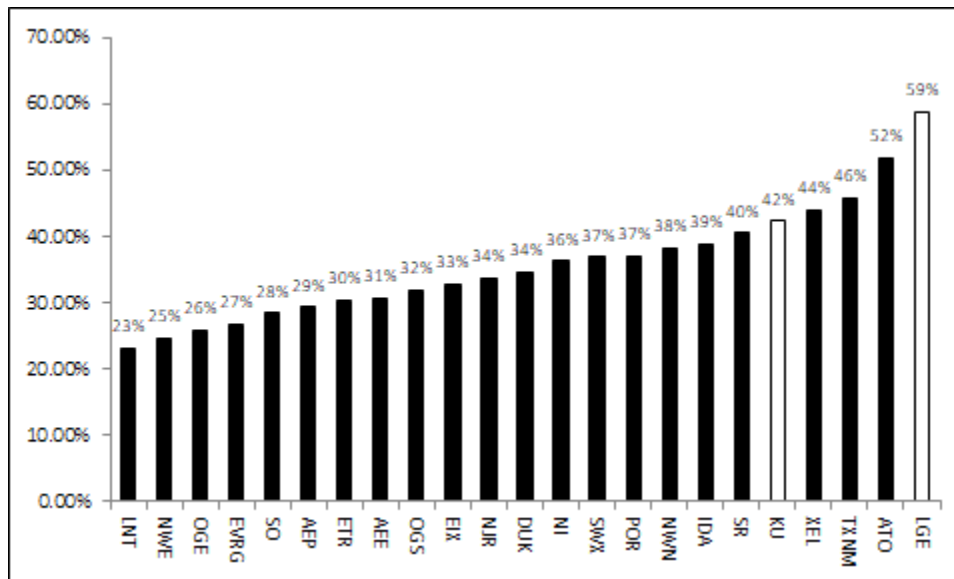
6   **Q.   DO THE COMPANIES' UTILIZATION OF REVENUE STABILIZATION**

7   **MECHANISMS AFFECT ITS RELATIVE RISK TO THE UTILITY PROXY**

8   **GROUP?**

9   A.   No. The *Hope* and *Bluefield* "Comparable Earnings" standard requires the allowed ROE

10   to be commensurate with the returns on investments of similar risk. The cost of capital is

11   a comparative exercise, so if mechanisms are common throughout the companies on which

12   one bases their analyses, the comparative risk is zero, because any effect of the perceived

13   reduced risk of the mechanism(s) by investors would be reflected in the market data of the

14   proxy group. To the extent the proxy companies have mechanisms in place to address

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[82]   Source: Value Line, PPL Corporation SEC Form 10-K for the Fiscal Year Ended December 31, 2024, at 51.

revenue shortfalls and cost recovery, the Companies' mechanisms only serve to make it more comparable to its peers and have no impact on comparative risk.

To that point, Exhibit DWD-12 provides a summary of rate stabilization mechanisms currently in effect at each natural gas subsidiary within the companies in the Natural Gas Utility Proxy Group and at each electric utility subsidiary within the companies in the Electric Utility Proxy Group. As Exhibit DWD-12 demonstrates, recovery mechanisms are common among the Natural Gas and Electric Utility Proxy Groups.

Q. **ARE YOU AWARE OF ANY STUDIES THAT HAVE ADDRESSED THE RELATIONSHIP BETWEEN RATE STABILIZATION MECHANISMS, GENERALLY, AND ROE?**

A. Yes. In March 2014, The Brattle Group ("Brattle") published a study addressing the effect of revenue decoupling structures on the cost of capital for electric utilities. In its report, which extended a prior analysis focused on natural gas distribution utilities, Brattle pointed out that although decoupling structures may affect revenue, net income still can vary. Brattle further noted that the distinction between diversifiable and non-diversifiable risk is important to equity investors, and the relationship between decoupling and the cost of equity should be examined in that context. Further to that point, Brattle noted that although reductions in total risk may be important to bondholders, only reductions in non-diversifiable business risk would justify a reduction to the ROE. In November 2016, the Brattle study was updated based on data through the fourth quarter of 2015.

Brattle's empirical analysis examined the relationship between decoupling and the After-Tax Weighted Average Cost of Capital for a group of electric utilities that had implemented decoupling structures in various jurisdictions throughout the United States.

1   As with Brattle's 2014 study, the updated study found no statistically significant link

2   between the cost of capital and revenue decoupling structures.

3   In addition, I co-authored a peer-reviewed article in Energy Policy with Dr. Richard

4   A. Michelfelder and my colleague Pauline M. Ahern which examines the relationship

5   between decoupling and ROE among electric, gas, and water utilities. Using the

6   generalized consumption asset pricing model, they found decoupling to have no

7   statistically significant effect on investor perceived risk and the ROE.

8 **Q.** **WHAT ARE YOUR CONCLUSIONS REGARDING THE EFFECT OF THE**

9   **COMPANY'S REVENUE STABILIZATION MECHANISMS ON ROE?**

10 **A.** The presence of LGE's and KU's revenue stabilization mechanisms do not affect the

11   Companies' ROEs. Those mechanisms do not affect the ROE because the operating

12   companies of the Utility Proxy Group utilize a wide range of revenue stabilization

13   mechanisms. Since this is the case, the lower risk of having such mechanisms (if any)

14   would already be subsumed in the market data for the Utility Proxy Groups.

15   Furthermore, several studies show that rate stabilization mechanisms do not

16   materially affect the investor-required return for those companies. Given that, the

17   Companies' mechanisms do not lower the comparative risk of the Companies relative to

18   the Utility Proxy Groups and therefore, the ROE should not be adjusted due to the

19   Companies' mechanisms.

20   **IX.   CONCLUSION**

21 **Q.** **WHAT IS YOUR RECOMMENDED ROE FOR LGE AND KU?**

22 **A.** Given the indicated ROE ranges applicable to the Utility Proxy Groups and the Companies,

23   I conclude that an appropriate ROE for the Companies is 10.95%.

1 **Q.**   **IN YOUR OPINION, IS YOUR PROPOSED ROE OF 10.95% FAIR AND**

2   **REASONABLE TO LGE, KU, AND ITS CUSTOMERS?**

3 **A.**   Yes, it is.

4 **Q.**   **DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

5 **A.**   Yes, it does.

VERIFICATION
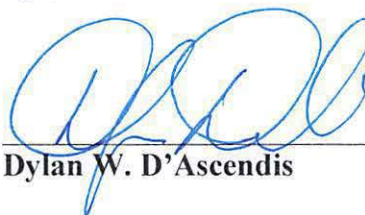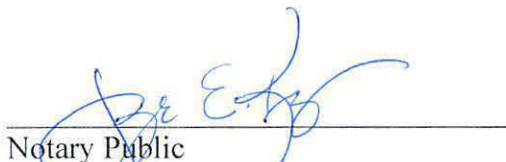
STATE OF NEW JERSEY)
)
COUNTY OF CAMDEN)

    The undersigned, **Dylan W. D'Ascendis**, being duly sworn, deposes and says that he is a Partner with ScottMadden Inc., that he has personal knowledge of the matters set forth in the foregoing testimony, and that the answers contained therein are true and correct to the best of his information, knowledge, and belief.

_____
Dylan W. D'Ascendis

    Subscribed and sworn to before me, a Notary Public in and before said County and State, this 27th day of May 2025.

_____
Notary Public

Notary Public ID No. 2416714

My Commission Expires:

February 1, 2027

Joyce E Kelly
NOTARY PUBLIC
State of New Jersey
ID # 2416714
My Commission Expires 2/1/2027

Kentucky Utilities Company / Louisville Gas & Electric Company
Brief Summary of Common Equity Cost Rate

Line No.	Principal Methods	Proxy Group of Seven Natural Gas Distribution Companies	Proxy Group of Seven Natural Gas Distribution Companies (excl. PRPM)
1.	Discounted Cash Flow Model (DCF) (1)	10.29%	10.29%
2.	Risk Premium Model (RPM) (2)	10.86%	10.81%
3.	Capital Asset Pricing Model (CAPM) (3)	11.12%	11.11%
4.	Market Models Applied to Comparable Risk, Non-Price Regulated Companies (4)	11.92%	11.91%
5.	Indicated Common Equity Cost Rate before Adjustment for Unique Risk	10.29% - 11.92%	10.29% - 11.91%
6.	Size Risk Adjustment (5)	0.15%	0.15%
7.	Credit Risk Adjustment (6)	0.00%	0.00%
8.	Flotation Cost Adjustment (7)	0.15%	0.15%
9.	Indicated Common Equity Cost Rate after Adjustment	10.59% - 12.22%	10.59% - 12.21%
10.	Recommended Common Equity Cost Rate	10.95%	10.95%

Notes:
(1) From page 1 of Exhibit DWD-3.
(2) From page 1 of Exhibit DWD-4.
(3) From page 1 of Exhibit DWD-5.
(4) From page 1 of Exhibit DWD-7.
(5) Size risk adjustment is required to account for the company's smaller size relative to the Utility Proxy Group.
(6) Company-specific risk adjustment to reflect Louisville Gas & Electric Company's lower risk due to a lower long-term issuer rating of A3 relative to the Natural Gas Utility Proxy Group.
(7) From page 1 of Exhibit DWD-10.

Kentucky Utilities Company / Louisville Gas & Electric Company
Brief Summary of Common Equity Cost Rate

| | | Kentucky Utilities Company | | Louisville Gas & Electric Company - Electric | |
| | | Proxy Group of Fifteen Electric Companies | Proxy Group of Fifteen Electric Companies (excl. PRPM) | Proxy Group of Fifteen Electric Companies | Proxy Group of Fifteen Electric Companies (excl. PRPM) |
Line No.	Principal Methods				
1.	Discounted Cash Flow Model (DCF) (1)	10.32%	10.32%	10.32%	10.32%
2.	Risk Premium Model (RPM) (2)	10.79%	10.74%	10.79%	10.74%
3.	Capital Asset Pricing Model (CAPM) (3)	10.75%	10.75%	10.75%	10.75%
4.	Market Models Applied to Comparable Risk, Non-Price Regulated Companies (4)	11.84%	11.83%	11.84%	11.83%
5.	Indicated Common Equity Cost Rate before Adjustment for Unique Risk	10.32% - 11.84%	10.32% - 11.83%	10.32% - 11.84%	10.32% - 11.83%
6.	Size Risk Adjustment (5)	0.05%	0.05%	0.10%	0.10%
7.	Credit Risk Adjustment (6)	-0.07%	-0.07%	-0.07%	-0.07%
8.	Flotation Cost Adjustment (7)	0.15%	0.15%	0.15%	0.15%
9.	Indicated Common Equity Cost Rate after Adjustment	10.46% - 11.98%	10.46% - 11.97%	10.51% - 12.03%	10.51% - 12.02%
10.	Recommended Common Equity Cost Rate	10.95%	10.95%	10.95%	10.95%

Notes: (1) From page 1 of Exhibit DWD-3.
(2) From page 1 of Exhibit DWD-4.
(3) From page 1 of Exhibit DWD-5.
(4) From page 1 of Exhibit DWD-7.
(5) Size risk adjustment is required to account for the company's smaller size relative to the Utility Proxy Group.
Company-specific risk adjustment to reflect Louisville Gas & Electric Company's and Kentucky Utilities' lower risk due to a
(6) lower long-term issuer rating of A3 relative to the Electric Utility Proxy Group.
(7) From page 1 of Exhibit DWD-10.

Proxy Group of Seven Natural Gas Distribution Companies
Capitalization and Financial Statistics (1)
2019 - 2023, Inclusive

	2023	2022	2021	2020	2019	
			(MILLIONS OF DOLLARS)			
Capitalization Statistics						
Amount of Capital Employed						
Total Permanent Capital	$9,183.685	$8,210.117	$7,442.590	$6,654.657	$5,863.473	
Short-Term Debt	$745.215	$823.046	$628.829	$300.871	$554.766	
Total Capital Employed	$9,928.900	$9,033.163	$8,071.419	$6,955.528	$6,418.239	
Indicated Average Capital Cost Rates (2)						
Total Debt	4.10 %	3.17 %	2.90 %	3.39 %	3.74 %	
Preferred Stock	5.22 %	4.84 %	5.33 %	6.19 %	4.60 %	
						5 YEAR
Capital Structure Ratios						AVERAGE
Based on Total Permanent Capital:						
Long-Term Debt	52.23 %	51.17 %	51.57 %	50.16 %	46.87 %	50.40 %
Preferred Stock	0.86	1.84	1.98	1.53	1.65	1.57
Common Equity	46.90	46.99	46.45	48.31	51.48	48.03
Total	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Based on Total Capital:						
Total Debt, Including Short-Term Debt	54.91 %	55.90 %	56.25 %	53.27 %	51.14 %	54.29 %
Preferred Stock	0.75	1.64	1.87	1.42	1.44	1.42
Common Equity	44.34	42.46	41.89	45.30	47.41	44.28
Total	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	99.99 %
Financial Statistics						
Financial Ratios - Market Based						
Earnings / Price Ratio	5.42 %	4.18 %	5.24 %	3.85 %	3.97 %	4.53 %
Market / Average Book Ratio	156.78	180.83	170.62	184.68	219.63	182.51
Dividend Yield	3.79	3.29	3.46	3.14	2.60	3.26
Dividend Payout Ratio	70.31	58.56	61.19	78.10	67.01	67.03
Rate of Return on Average Book Common Equity	8.63 %	8.06 %	9.49 %	7.11 %	8.74 %	8.41 %
Total Debt / EBITDA (3)	5.18 x	5.39 x	5.59 x	5.72 x	4.81 x	5.34 x
Funds from Operations / Total Debt (4)	27.32 %	11.51 %	9.24 %	14.20 %	15.23 %	15.50 %
Total Debt / Total Capital	54.91 %	55.90 %	56.25 %	53.27 %	51.14 %	54.29 %

Notes:

(1) All capitalization and financial statistics for the group are the arithmetic average of the achieved results for each individual company in the group, and are based upon financial statements as originally reported in each year.

(2) Computed by relating actual total debt interest or preferred stock dividends booked to average of beginning and ending total debt or preferred stock reported to be outstanding.

(3) Total debt relative to EBITDA (Earnings before Interest, Income Taxes, Depreciation and Amortization).

(4) Funds from operations (sum of net income, depreciation, amortization, net deferred income tax and investment tax credits, less total AFUDC) plus interest charges as a percentage of total debt.

Source of Information: Company Annual Forms 10-K.

Proxy Group of Fifteen Electric Companies
Capitalization and Financial Statistics (1)
2019 - 2023, Inclusive

	2023	2022	2021	2020	2019
			(MILLIONS OF DOLLARS)		

Capitalization Statistics

Amount of Capital Employed

	2023	2022	2021	2020	2019	
Total Permanent Capital	$35,135.635	$33,005.151	$30,958.714	$28,756.784	$26,766.057	
Short-Term Debt	$1,060.785	$1,196.389	$998.605	$820.719	$880.673	
Total Capital Employed	$36,196.420	$34,201.540	$31,957.319	$29,577.503	$27,646.730	

Indicated Average Capital Cost Rates (2)

Total Debt	4.33 %	3.78 %	3.65 %	4.09 %	4.13 %	
Preferred Stock	5.13 %	5.86 %	7.09 %	5.58 %	5.34 %	

						5 YEAR AVERAGE

Capital Structure Ratios

Based on Total Permanent Capital:

	2023	2022	2021	2020	2019	5 YEAR AVERAGE
Long-Term Debt	58.19 %	57.43 %	56.89 %	55.65 %	54.09 %	56.45 %
Preferred Stock	0.54	0.49	0.54	0.71	0.83	0.62
Common Equity	41.28	42.08	42.57	43.64	45.08	42.93
Total	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %

Based on Total Capital:

	2023	2022	2021	2020	2019	5 YEAR AVERAGE
Total Debt, Including Short-Term Debt	59.31 %	58.56 %	58.04 %	56.67 %	55.17 %	57.55 %
Preferred Stock	0.52	0.47	0.52	0.68	0.81	0.60
Common Equity	40.17	40.97	41.45	42.66	44.02	41.85
Total	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %

Financial Statistics

Financial Ratios - Market Based

	2023	2022	2021	2020	2019	5 YEAR AVERAGE
Earnings / Price Ratio	5.41 %	4.95 %	5.43 %	4.30 %	5.31 %	5.08 %
Market / Average Book Ratio	177.32	194.85	194.85	184.99	193.03	189.01
Dividend Yield	3.93	3.79	3.77	3.68	3.40	3.71
Dividend Payout Ratio	79.39	79.13	69.93	64.92	66.11	71.89

Rate of Return on Average Book Common Equity	9.19 %	9.21 %	10.12 %	8.03 %	9.91 %	9.29 %

Total Debt / EBITDA (3)	5.53 x	5.51 x	5.31 x	5.98 x	4.73 x	5.41 x

Funds from Operations / Total Debt (4)	12.87 %	10.48 %	6.06 %	12.20 %	13.34 %	10.99 %

Total Debt / Total Capital	59.31 %	58.56 %	58.04 %	56.67 %	55.17 %	57.55 %

Notes:

(1) All capitalization and financial statistics for the group are the arithmetic average of the achieved results for each individual company in the group, and are based upon financial statements as originally reported in each year.

(2) Computed by relating actual total debt interest or preferred stock dividends booked to average of beginning and ending total debt or preferred stock reported to be outstanding.

(3) Total debt relative to EBITDA (Earnings before Interest, Income Taxes, Depreciation and Amortization).

(4) Funds from operations (sum of net income, depreciation, amortization, net deferred income tax and investment tax credits, less total AFUDC) plus interest charges as a percentage of total debt.

Source of Information: Company Annual Forms 10-K.

Capital Structure Based upon Total Permanent Capital for the
Proxy Group of Seven Natural Gas Distribution Companies
2019 - 2023, Inclusive

	2023	2022	2021	2020	2019	5 YEAR AVERAGE
Atmos Energy Corporation						
Long-Term Debt	37.62 %	37.96 %	39.35 %	40.02 %	38.03 %	38.60 %
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	62.38	62.04	60.65	59.98	61.97	61.40
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
New Jersey Resources Corporation						
Long-Term Debt	59.16 %	58.49 %	57.81 %	55.35 %	50.11 %	56.18 %
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	40.84	41.51	42.19	44.65	49.89	43.82
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
NiSource Inc.						
Long-Term Debt	57.26 %	55.77 %	57.09 %	61.64 %	56.79 %	57.71 %
Preferred Stock	2.51	9.03	9.55	5.87	6.35	6.66
Common Equity	40.23	35.20	33.36	32.49	36.86	35.63
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Northwest Natural Holding Company						
Long-Term Debt	55.11 %	53.21 %	52.12 %	51.81 %	50.43 %	52.54 %
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	44.89	46.79	47.88	48.19	49.57	47.46
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
ONE Gas, Inc.						
Long-Term Debt	44.05 %	42.10 %	41.74 %	41.76 %	37.65 %	41.46 %
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	55.95	57.90	58.26	58.24	62.35	58.54
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Southwest Gas Holding Company						
Long-Term Debt	58.43 %	59.25 %	59.90 %	50.90 %	49.58 %	55.61 %
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	41.57	40.75	40.10	49.10	50.42	44.39
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Spire Inc.						
Long-Term Debt	54.01 %	51.42 %	52.98 %	49.62 %	45.49 %	50.70 %
Preferred Stock	3.52	3.84	4.28	4.83	5.19	4.33
Common Equity	42.46	44.74	42.74	45.55	49.32	44.96
Total Capital	99.99 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Proxy Group of Seven Natural Gas Distribution Companies						
Long-Term Debt	52.23 %	51.17 %	51.57 %	50.16 %	46.87 %	50.40 %
Preferred Stock	0.86	1.84	1.98	1.53	1.65	1.57
Common Equity	46.90	46.99	46.45	48.31	51.48	48.03
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %

Source of Information
Annual Forms 10-K

Kentucky Utilities Company / Louisville Gas & Electric Company
Operating Subsidiary Company Capital Structures of the
Proxy Group of Seven Natural Gas Distribution Companies

Company Name	Parent Company Ticker	2023		
		Common Equity	Total Debt	Total Capital
Atmos Energy Corporation	ATO	60.41%	39.59%	100.00%
New Jersey Natural Gas Company	NJR	37.70%	62.30%	100.00%
Northern Indiana Public Service Company	NI	59.26%	40.74%	100.00%
Northwest Natural Gas Company	NWN	45.77%	54.23%	100.00%
ONE Gas, Inc.	OGS	47.40%	52.60%	100.00%
Southwest Gas Corporation	SWX	47.62%	52.38%	100.00%
Spire Alabama Inc.	SR	50.89%	49.11%	100.00%
Spire Missouri Inc.	SR	44.21%	55.79%	100.00%
	Average	49.16%	50.84%	
	Maximum	60.41%	62.30%	
	Minimum	37.70%	39.59%	

Source: S&P Global Market Intelligence.
      Company Financial Statements.
      Northern Indiana Public Service Company is from FERC financial Report Form Form No. 1.

Capital Structure Based upon Total Permanent Capital for the
Proxy Group of Fifteen Electric Companies
2019 - 2023, Inclusive

	2023	2022	2021	2020	2019	5 YEAR AVERAGE
Alliant Energy Corporation						
Long-Term Debt	57.14 %	56.27 %	55.16 %	53.51 %	53.39 %	55.09 %
Preferred Stock	0.00	0.00	0.00	1.58	1.72	0.66
Common Equity	42.86	43.73	44.84	44.91	44.89	44.25
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Ameren Corporation						
Long-Term Debt	58.18 %	56.87 %	57.07 %	54.97 %	53.29 %	56.08 %
Preferred Stock	0.47	0.52	0.56	0.70	0.81	0.61
Common Equity	41.35	42.61	42.37	44.32	45.90	43.31
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
American Electric Power Corporation						
Long-Term Debt	61.39 %	59.85 %	59.86 %	60.19 %	57.30 %	59.72 %
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	38.61	40.15	40.14	39.81	42.70	40.28
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Duke Energy Corporation						
Long-Term Debt	60.51 %	59.08 %	56.43 %	55.52 %	55.39 %	57.39 %
Preferred Stock	1.58	1.63	1.73	1.82	1.87	1.73
Common Equity	37.91	39.29	41.84	42.66	42.74	40.89
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Edison International						
Long-Term Debt	66.99 %	65.60 %	61.49 %	56.44 %	54.21 %	60.95 %
Preferred Stock	4.96	4.21	4.63	5.19	6.48	5.09
Common Equity	28.06	30.19	33.88	38.37	39.31	33.96
Total Capital	100.01 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Entergy Corporation						
Long-Term Debt	62.66 %	66.13 %	68.58 %	66.68 %	63.04 %	65.42 %
Preferred Stock	0.85	0.81	0.58	0.76	0.90	0.78
Common Equity	36.49	33.06	30.84	32.57	36.06	33.80
Total Capital	100.00 %	100.00 %	100.00 %	100.01 %	100.00 %	100.00 %
Evergy, Inc.						
Long-Term Debt	55.09 %	52.17 %	51.17 %	52.48 %	51.77 %	52.54 %
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	44.91	47.83	48.83	47.52	48.23	47.46
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
IDACORP, Inc.						
Long-Term Debt	49.29 %	43.87 %	42.85 %	43.86 %	42.70 %	44.51 %
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	50.71	56.13	57.15	56.14	57.30	55.49
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %

Capital Structure Based upon Total Permanent Capital for the
Proxy Group of Fifteen Electric Companies
2019 - 2023, Inclusive

	2023	2022	2021	2020	2019	5 YEAR AVERAGE
North Western Corporation						
Long-Term Debt	49.99 %	49.56 %	52.09 %	52.72 %	52.27 %	51.33 %
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	50.01	50.44	47.91	47.28	47.73	48.67
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
OGE Energy Corporation						
Long-Term Debt	49.03 %	50.75 %	52.57 %	49.04 %	43.56 %	48.99 %
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	50.97	49.25	47.43	50.96	56.44	51.01
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Pinnacle West Capital Corporation						
Long-Term Debt	57.67 %	56.30 %	54.46 %	52.85 %	50.91 %	54.44 %
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	42.33	43.70	45.54	47.15	49.09	45.56
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Portland General Electric Company						
Long-Term Debt	54.56 %	56.75 %	54.82 %	53.83 %	50.06 %	54.00 %
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	45.44	43.25	45.18	46.17	49.94	46.00
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Southern Company						
Long-Term Debt	65.50 %	64.37 %	64.99 %	63.22 %	61.71 %	63.96 %
Preferred Stock	0.00	0.00	0.36	0.38	0.40	0.23
Common Equity	34.50	35.63	34.65	36.40	37.90	35.82
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
TXNM Energy, Inc.						
Long-Term Debt	65.72 %	64.92 %	62.93 %	61.52 %	64.02 %	63.82 %
Preferred Stock	0.17	0.18	0.20	0.22	0.25	0.20
Common Equity	34.11	34.90	36.88	38.26	35.73	35.98
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Xcel Energy Inc.						
Long-Term Debt	59.11 %	58.97 %	58.91 %	57.93 %	57.77 %	58.54 %
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	40.89	41.03	41.09	42.07	42.23	41.46
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Proxy Group of Fifteen Electric Companies						
Long-Term Debt	58.19 %	57.43 %	56.89 %	55.65 %	54.09 %	56.45 %
Preferred Stock	0.54	0.49	0.54	0.71	0.83	0.62
Common Equity	41.28	42.08	42.57	43.64	45.08	42.93
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %

Source of Information
Annual Forms 10-K

Kentucky Utilities Company / Louisville Gas & Electric Company
Operating Subsidiary Company Capital Structures of the
Proxy Group of Fifteen Electric Companies

Company Name	Parent Company Ticker	2024			
		Common Equity	Preferred Equity	Long-Term Debt	Total Capital
Union Electric Company (NYSE:UEP)	AEE	50.08%	0.51%	49.42%	100.00%
Ameren Illinois Company	AEE	55.37%	0.37%	44.26%	100.00%
Appalachian Power Company	AEP	50.00%	0.00%	50.00%	100.00%
AEP Texas Inc. (NYSE:CSR)	AEP	42.82%	0.00%	57.18%	100.00%
Southwestern Electric Power Company	AEP	48.51%	0.00%	51.49%	100.00%
Ohio Power Company	AEP	50.61%	0.00%	49.39%	100.00%
Indiana Michigan Power Company	AEP	48.76%	0.00%	51.24%	100.00%
Public Service Company of Oklahoma	AEP	47.40%	0.00%	52.60%	100.00%
Kentucky Power Company	AEP	44.95%	0.00%	55.05%	100.00%
Progress Energy, Inc. (NYSE:PGN)	DUK	49.76%	0.00%	50.24%	100.00%
Duke Energy Carolinas, LLC	DUK	50.34%	0.00%	49.66%	100.00%
Duke Energy Progress, LLC	DUK	48.17%	0.00%	51.83%	100.00%
Duke Energy Florida, LLC	DUK	50.82%	0.00%	49.18%	100.00%
Duke Energy Indiana, LLC (OTCPK:PSIE)	DUK	53.32%	0.00%	46.68%	100.00%
Duke Energy Ohio, Inc. (NYSE:CIN)	DUK	56.68%	0.00%	43.32%	100.00%
Piedmont Natural Gas Company, Inc. (NYSE:PNY)	DUK	52.04%	0.00%	47.96%	100.00%
Southern California Edison Company	EIX	36.55%	4.15%	59.30%	100.00%
Entergy Louisiana, LLC	ETR	53.71%	0.00%	46.29%	100.00%
Entergy Texas, Inc.	ETR	47.64%	0.56%	51.80%	100.00%
Entergy Mississippi, LLC	ETR	49.16%	0.00%	50.84%	100.00%
Evergy Kansas Central, Inc.	EVRG	52.92%	0.00%	47.08%	100.00%
Evergy Metro, Inc. (NYSE:KLT)	EVRG	50.75%	0.00%	49.25%	100.00%
Idaho Power Company (NYSE:IDA)	IDA	50.14%	0.00%	49.86%	100.00%
Interstate Power and Light Company (NYSE:IPW)	LNT	51.78%	0.00%	48.22%	100.00%
Wisconsin Power and Light Company	LNT	53.30%	0.00%	46.70%	100.00%
NorthWestern Energy Group, Inc. (NASDAQGS:NWE)	NWE	48.78%	0.00%	51.22%	100.00%
Oklahoma Gas and Electric Company	OGE	53.23%	0.00%	46.77%	100.00%
OGE Energy Corp. (NYSE:OGE)	OGE	47.71%	0.00%	52.29%	100.00%
Arizona Public Service Company	PNW	47.59%	0.00%	52.41%	100.00%
Portland General Electric Company (NYSE:POR)	POR	42.47%	0.00%	57.53%	100.00%
Georgia Power Company	SO	54.62%	0.00%	45.38%	100.00%
Alabama Power Company	SO	53.79%	0.00%	46.21%	100.00%
Southern Company Gas (NYSE:GAS)	SO	56.19%	0.00%	43.81%	100.00%
Southern Power Company	SO	49.97%	0.00%	50.03%	100.00%
Mississippi Power Company	SO	55.12%	0.00%	44.88%	100.00%
Southern Natural Gas Company, L.L.C.	SO	66.40%	0.00%	33.60%	100.00%
Texas-New Mexico Power Company	TXNM	48.05%	0.00%	51.95%	100.00%
Public Service Company of Colorado (NYSE:PSR)	XEL	54.30%	0.00%	45.70%	100.00%
Northern States Power Company	XEL	52.36%	0.00%	47.64%	100.00%
Southwestern Public Service Company (NYSE:SPS)	XEL	51.94%	0.00%	48.06%	100.00%
Northern States Power Company	XEL	53.49%	0.00%	46.51%	100.00%
	Average	50.77%	0.14%	49.09%	
	Minimum	36.55%	0.00%	33.60%	
	Maximum	66.40%	4.15%	59.30%	

Source: S&P Capital IQ.

Kentucky Utilities Company / Louisville Gas & Electric Company
Indicated Common Equity Cost Rate Using the Discounted Cash Flow Model for the
Proxy Group of Seven Natural Gas Distribution Companies and Proxy Group of Fifteen Electric Companies

	[1]	[2]	[3]	[4]	[5]	[6]	[7]
Proxy Group of Seven Natural Gas Distribution Companies	Average Dividend Yield (1)	Value Line Projected Five Year Growth in EPS (2)	Zack's Five Year Projected Growth Rate in EPS	S&P Capital IQ Projected Five Year Growth in EPS	Average Projected Five Year Growth in EPS (3)	Adjusted Dividend Yield (4)	Indicated Common Equity Cost Rate (5)
Atmos Energy Corporation	2.44 %	6.00 %	7.10 %	7.44 %	6.85 %	2.52 %	9.37 %
New Jersey Resources Corporation	3.82	5.00	NA	5.90	5.45	3.92	9.37
NiSource Inc.	2.98	9.50	8.20	7.93	8.54	3.11	11.65
Northwest Natural Holding Company	4.84	6.50	NA	5.50	6.00	4.99	10.99
ONE Gas, Inc.	3.77	4.00	4.70	2.63	3.78	3.84	7.62
Southwest Gas Holding Company	3.37	10.00	6.60	10.55	9.05	3.52	12.57
Spire Inc.	4.47	4.50	5.80	6.82	5.71	4.60	10.31
						Average	10.27 %
NA= Not Available						Median	10.31 %
						Average of Mean and Median	10.29 %

	[1]	[2]	[3]	[4]	[5]	[6]	[7]
Proxy Group of Fifteen Electric Companies	Average Dividend Yield (1)	Value Line Projected Five Year Growth in EPS (2)	Zack's Five Year Projected Growth Rate in EPS	S&P Capital IQ Projected Five Year Growth in EPS	Average Projected Five Year Growth in EPS (3)	Adjusted Dividend Yield (4)	Indicated Common Equity Cost Rate (5)
Alliant Energy Corporation	3.38 %	6.00 %	6.40 %	6.73 %	6.38 %	3.49 %	9.87 %
Ameren Corporation	3.05	6.50	6.70	6.79	6.66	3.15	9.81
American Electric Power Corporation	3.82	6.50	6.00	6.59	6.36	3.94	10.30
Duke Energy Corporation	3.77	6.00	6.30	6.33	6.21	3.89	10.10
Edison International	5.01	6.50	8.50	8.25	7.75	5.20	12.95
Entergy Corporation	3.03	0.50	9.50	8.40	6.13	3.12	9.25
Evergy, Inc.	4.19	7.50	5.90	5.68	6.36	4.32	10.68
IDACORP, Inc.	3.09	6.00	8.40	7.00	7.13	3.20	10.33
North Western Corporation	4.95	4.50	6.10	5.73	5.44	5.08	10.52
OGE Energy Corporation	3.97	6.50	6.10	6.09	6.23	4.09	10.32
Pinnacle West Capital Corporation	4.09	4.00	5.60	6.38	5.33	4.20	9.53
Portland General Electric Company	4.64	5.50	12.30	7.83	8.54	4.84	13.38 (6)
Southern Company	3.41	6.50	6.80	6.62	6.64	3.52	10.16
TXNM Energy, Inc.	3.33	4.00	3.00	5.68	4.23	3.40	7.63 (6)
Xcel Energy Inc.	3.36	6.50	6.90	7.35	6.92	3.48	10.40
						Average	10.33 %
NA= Not Available						Median	10.30 %
						Average of Mean and Median	10.32 %

Notes:
(1) Indicated dividend at 02/28/2025 divided by the average closing price of the last 60 trading days ending 02/28/2025 for each company.
(2) From pages 2 through 23 of this Exhibit.
(3) Average of columns 2 through 4 excluding negative growth rates.
(4) This reflects a growth rate component equal to one-half the conclusion of growth rate (from column 5) x column 1 to reflect the periodic payment of dividends (Gordon Model) as opposed to the continuous payment. Thus, for Atmos Energy Corporation, 2.44% x (1+(1/2 x 6.85%)) = 2.52%.
(5) Column 6 + Column 7.
(6) Results were excluded from the final average and median as they were more than two standard deviations from the proxy group's mean.

Source of Information: Value Line Investment Survey
www.zacks.com Downloaded on 02/28/2025
S&P Capital IQ

ATMOS ENERGY CORP. NYSE-ATO

| RECENT PRICE | 142.28 | P/E RATIO | 19.8 | (Trailing: 20.3) (Median: 20.0) | RELATIVE P/E RATIO | 1.08 | DIV'D YLD | 2.5% | VALUE LINE |

TIMELINESS 3 Raised 1/17/25
SAFETY 1 Raised 6/6/14
TECHNICAL 3 Lowered 1/24/25
BETA .90 (1.00 = Market)

High: 58.2 64.8 82.0 93.6 100.8 115.2 121.1 105.3 123.0 125.3 152.6 147.7
Low: 44.2 50.8 60.0 72.5 76.5 89.2 77.9 84.6 97.7 101.0 110.5 136.2

Target Price Range 2028 2029 2030

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

18-Month Target Price Range
Low-High Midpoint (% to Mid)
$124-$185 $155 (10%)

2028-30 PROJECTIONS
	Price	Gain	Ann'l Total Return
High	170	(+20%)	7%
Low	140	(Nil)	3%

Institutional Decisions
	1Q2024	2Q2024	3Q2024
to Buy	367	342	357
to Sell	292	311	315
Hld's(000)	137412	144146	162641

Percent shares traded: 24 / 16 / 8

% TOT. RETURN 1/25
	THIS STOCK	VL ARITH.* INDEX
1 yr.	30.5	20.7
3 yr.	45.9	25.6
5 yr.	39.7	83.9

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	© VALUE LINE PUB. LLC	28-30
53.69	53.12	48.15	38.10	42.88	49.22	40.82	32.23	26.01	28.00	24.32	22.41	25.73	29.82	28.79	26.83	26.30	26.20	Revenues per sh A	32.45
4.29	4.64	4.72	4.76	5.14	5.42	5.81	6.19	6.62	7.24	7.57	8.03	8.64	9.30	10.04	11.03	11.55	12.25	"Cash Flow" per sh	13.90
1.97	2.16	2.26	2.10	2.50	2.96	3.09	3.38	3.60	4.00	4.35	4.72	5.12	5.60	6.10	6.83	7.20	7.60	Earnings per sh AB	8.65
1.32	1.34	1.36	1.38	1.40	1.48	1.56	1.68	1.80	1.94	2.10	2.30	2.50	2.72	2.96	3.22	3.48	3.68	Div'ds Decl'd per sh C■	4.45
5.51	6.02	6.90	8.12	9.32	8.32	9.61	10.46	10.72	13.19	14.19	15.38	14.87	17.35	18.90	18.92	22.70	22.60	Cap'l Spending per sh	21.60
23.52	24.16	24.98	26.14	28.47	30.74	31.48	33.32	36.74	42.87	48.18	53.95	59.71	66.85	73.20	78.31	83.50	85.70	Book Value per sh D	97.30
92.55	90.16	90.30	90.24	90.64	100.39	101.48	103.93	106.10	111.27	119.34	125.88	132.42	140.90	148.49	155.26	163.00	168.00	Common Shs Outst'g D	185.00
12.5	13.2	14.4	15.9	15.9	16.1	17.5	20.8	22.0	21.7	23.2	22.3	18.8	19.3	18.7	17.3	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	18.0
.83	.84	.90	1.01	.89	.85	.88	1.09	1.11	1.17	1.24	1.15	1.02	1.12	1.08	.90			Relative P/E Ratio	1.00
5.3%	4.7%	4.2%	4.1%	3.5%	3.1%	2.9%	2.4%	2.3%	2.2%	2.1%	2.2%	2.6%	2.5%	2.6%	2.7%			Avg Ann'l Div'd Yield	2.9%

CAPITAL STRUCTURE as of 12/31/24
Total Debt $8510.1 mill. Due in 5 Yrs $1170.0 mill.
LT Debt $8490.2 mill. LT Interest $190.0 mill.
(LT interest earned: 7.5x; total interest coverage: 7.5x)
Leases, Uncapitalized Annual rentals $43.2 mill.

Pfd Stock None

Pension Assets-9/24 $595.2 mill.
Oblig. $470.9 mill.
Common Stock 158,728,197 shs.
as of 1/31/25

MARKET CAP: $22.6 billion (Large Cap)

																© VALUE LINE PUB. LLC 28-30	
4142.1	3349.9	2759.7	3115.5	2901.8	2821.1	3407.5	4201.7	4275.4	4165.2	4290	4400	Revenues ($mill) A	6000
315.1	350.1	382.7	443.3	511.4	580.5	665.6	774.4	885.9	1042.9	1150	1255	Net Profit ($mill)	1575
38.3%	36.4%	36.6%	27.0%	21.4%	19.5%	18.8%	9.1%	11.4%	15.6%	18.5%	19.0%	Income Tax Rate	25.0%
7.6%	10.5%	13.9%	14.3%	17.6%	20.6%	19.5%	18.4%	20.7%	25.0%	26.8%	28.5%	Net Profit Margin	26.3%
43.5%	38.7%	44.0%	34.3%	38.0%	40.0%	38.4%	37.9%	37.9%	39.3%	40.0%	40.0%	Long-Term Debt Ratio	40.0%
56.5%	61.3%	56.0%	65.7%	62.0%	60.0%	61.6%	62.1%	62.1%	60.7%	60.0%	60.0%	Common Equity Ratio	60.0%
5650.2	5651.8	6965.7	7263.6	9279.7	11323	12837	15180	17509	20018	22750	24000	Total Capital ($mill)	30000
7430.6	8280.5	9259.2	10371	11788	13355	15064	17240	19607	22204	24600	26000	Net Plant ($mill)	32000
6.6%	7.2%	6.4%	6.9%	6.1%	5.5%	5.5%	5.4%	5.5%	5.7%	6.5%	6.5%	Return on Total Cap'l	6.5%
9.9%	10.1%	9.8%	9.3%	8.9%	8.5%	8.4%	8.2%	8.1%	8.6%	8.5%	8.5%	Return on Shr. Equity	9.0%
9.9%	10.1%	9.8%	9.3%	8.9%	8.5%	8.4%	8.2%	8.1%	8.6%	8.5%	8.5%	Return on Com Equity	9.0%
4.9%	5.1%	4.9%	4.8%	4.6%	4.4%	4.3%	4.2%	4.2%	4.5%	4.5%	4.5%	Retained to Com Eq	4.0%
51%	50%	50%	48%	48%	49%	49%	49%	49%	47%	49%	49%	All Div'ds to Net Prof	52%

CURRENT POSITION
($MILL.)	2023	2024	12/31/24
Cash Assets	15.4	307.3	584.5
Other	870.4	825.0	1243.6
Current Assets	885.8	1132.3	1828.1
Accts Payable	336.1	445.4	453.0
Debt Due	253.4	9.9	19.9
Other	763.1	750.6	701.9
Current Liab.	1352.6	1205.9	1174.8
Fix. Chg. Cov.	1059%	914%	930%

ANNUAL RATES
of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '22-'24 to '28-'30
Revenues	-4.0%	2.0%	2.0%
"Cash Flow"	7.0%	7.0%	5.5%
Earnings	9.5%	9.0%	6.0%
Dividends	7.5%	9.0%	7.0%
Book Value	10.0%	11.5%	5.0%

QUARTERLY REVENUES ($ mill.) A
Fiscal Year Ends	Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2022	1012.8	1649.8	816.4	722.7	4201.7
2023	1484.0	1541.0	662.7	587.7	4275.4
2024	1158.5	1647.2	701.5	658.0	4165.2
2025	1176.0	1700	740	674	4290
2026	1210	1730	740	700	4400

EARNINGS PER SHARE A B E
Fiscal Year Ends	Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2022	1.86	2.37	.92	.51	5.60
2023	1.91	2.48	.94	.80	6.10
2024	2.08	2.85	1.08	.86	6.83
2025	2.23	2.92	1.15	.90	7.20
2026	2.34	3.01	1.25	1.00	7.60

QUARTERLY DIVIDENDS PAID C■
Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	.625	.625	.625	.68	2.56
2022	.68	.68	.68	.74	2.78
2023	.74	.74	.74	.805	3.03
2024	.805	.805	.805	.87	3.29
2025	.87				

BUSINESS: Atmos Energy Corporation is engaged primarily in the distribution and sale of natural gas to over 3.3 million customers through six regulated natural gas utility operations: Louisiana Division, West Texas Division, Mid-Tex Division, Mississippi Division, Colorado-Kansas Division, and Kentucky/Mid-States Division. Gas sales breakdown for fiscal 2024: 68.8%, residential; 27.1%, commercial; 2.7%, industrial; and 1.4% other. The company sold Atmos Energy Marketing, 1/17. Officers and directors own approximately .5% of common stock (12/24 Proxy). President and Chief Executive Officer: Kevin Akers. Incorporated: Texas. Address: Three Lincoln Centre, Suite 1800, 5430 LBJ Freeway, Dallas, Texas 75240. Telephone: 972-934-9227. Internet: www.atmosenergy.com.

Atmos Energy Corporation got off to a decent start in fiscal 2025. (The year concludes on September 30th.) Indeed, for the first quarter, the bottom line advanced 7.2%, to $2.23 per share, which matched our target, compared to fiscal 2024's tally of $2.08. One contributor was the distribution segment, supported partly by rate adjustments and benefits of residential customer growth (both occurring primarily in the Mid-Tex Division). Furthermore, the pipeline and storage unit was aided, among other factors, by the Gas Reliability Infrastructure Program filing approved in May 2024 and the System Safety and Integrity Rider filing approved in November 2024. But the company's results were weighed down, to a certain extent, by increases in bad-debt expense, depreciation, and property taxes, as well as higher interest expense. Nevertheless, we believe that full-year profits will finish in the vicinity of $7.20 a share (unchanged from the estimate in our last report three months ago). That would mark a 5% increase from fiscal 2024's $6.83 figure. Regarding the next fiscal year, earnings per share may grow at a similar percentage rate, to $7.60, assuming additional expansion of operating margins.

The Financial Strength rating is solid, at A. When the December period ended, cash and equivalents were $584.5 million. Moreover, long-term borrowings seemed reasonable (40% of total capital) and short-term debt was only $19.9 million. Too, $6.3 billion in common stock and/or debt securities remained available for issuance (out of $8.0 billion) under a shelf registration statement expiring in December, 2027. Finally, the company had four undrawn revolving credit facilities aggregating $3.1 billion plus a $1.5 billion commercial paper program.

These top-quality shares offer unspectacular long-term total return potential. The dividend yield does not stand out when measured against the average of *Value Line's* Natural Gas Utility group. Also, capital gains potential for the pull to 2028-2030 is nothing to write home about. That's because the stock is already trading within our Target Price Range. Meanwhile, the Timeliness rank resides at just 3 (Average).

Frederick L. Harris, III   February 21, 2025

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

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

NEW JERSEY RES. NYSE-NJR

RECENT PRICE	P/E RATIO	(Trailing: 13.8 / Median: 17.0)	RELATIVE P/E RATIO	DIV'D YLD	VALUE LINE
45.81	14.8		0.80	3.9%	

TIMELINESS 4 Raised 3/29/24
SAFETY 2 Lowered 4/17/20
TECHNICAL 2 Raised 1/3/25
BETA 1.00 (1.00 = Market)

| High: | 32.1 | 34.1 | 38.9 | 45.4 | 51.8 | 51.2 | 44.7 | 44.4 | 51.4 | 55.8 | 51.9 | 48.3 |
| Low: | 21.9 | 26.8 | 30.5 | 33.7 | 35.6 | 40.3 | 21.1 | 33.3 | 37.8 | 38.9 | 39.4 | 44.9 |

LEGENDS
— 0.40 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
2-for-1 split 3/15
Options: Yes
Shaded area indicates recession

Target Price Range 2028 2029 2030

18-Month Target Price Range
Low-High Midpoint (% to Mid)
$39-$63 $51 (10%)

2028-30 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	75	(+65%)	16%
Low	55	(+20%)	8%

Institutional Decisions

	1Q2024	2Q2024	3Q2024
to Buy	167	167	196
to Sell	140	139	134
Hld's(000)	70181	71950	88596

Percent shares traded: 30 20 10

% TOT. RETURN 1/25

	THIS STOCK	VL ARITH.* INDEX
1 yr.	27.8	20.7
3 yr.	39.0	25.6
5 yr.	46.2	83.9

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	© VALUE LINE PUB. LLC	28-30
Revenues per sh A	31.17	32.05	36.30	27.08	38.38	44.40	32.09	21.90	26.28	33.24	29.01	20.39	22.71	30.19	20.12	18.06	18.30	18.80		21.45
"Cash Flow" per sh	1.58	1.63	1.70	1.86	1.93	2.73	2.52	2.46	2.68	3.72	2.99	3.30	3.36	3.84	4.28	4.59	4.90	5.10		6.05
Earnings per sh B	1.20	1.23	1.29	1.36	1.37	2.08	1.78	1.61	1.73	2.72	1.96	2.07	2.16	2.50	2.71	2.95	3.10	3.20		3.90
Div'ds Decl'd per sh C■	.62	.68	.72	.77	.81	.86	.93	.98	1.04	1.11	1.19	1.27	1.36	1.45	1.56	1.71	1.80	1.95		2.20
Cap'l Spending per sh	.90	1.05	1.13	1.26	1.33	1.52	3.76	4.15	3.80	4.39	5.83	4.65	5.42	5.81	5.13	5.26	5.50	5.75		6.50
Book Value per sh D	8.29	8.81	9.36	9.80	10.65	11.48	12.99	13.58	14.33	16.18	17.37	19.26	17.18	18.88	20.40	22.12	23.05	23.80		27.00
Common Shs Outst'g E	83.17	82.35	82.89	83.05	83.32	84.20	85.19	85.88	86.32	87.69	89.34	95.80	94.95	96.25	97.58	99.46	101.00	102.50		105.00
Avg Ann'l P/E Ratio	14.9	15.0	16.8	16.8	16.0	11.7	16.6	21.3	22.4	15.6	24.3	17.7	17.5	17.0	17.6	14.9	Bold figures are Value Line estimates			17.0
Relative P/E Ratio	.99	.95	1.05	1.07	.90	.62	.84	1.12	1.13	.84	1.29	.91	.95	.98	.98	.77				.95
Avg Ann'l Div'd Yield	3.5%	3.7%	3.3%	3.4%	3.7%	3.5%	3.1%	2.9%	2.7%	2.6%	2.5%	3.5%	3.6%	3.4%	3.3%	3.9%				3.4%

CAPITAL STRUCTURE as of 12/31/24
Total Debt $3418.1 mill. Due in 5 Yrs $660 mill.
LT Debt $2989.5 mill. LT Interest $130 mill.
Incl. $8.4 mill. capitalized leases.

Pension Assets-9/24 $641 mill.
Oblig. $624 mill.

Pfd Stock None

Common Stock 100,289,422 shs.
as of 1/31/25

MARKET CAP: $4.6 billion (Mid Cap)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026		28-30
Revenues ($mill) A	2734.0	1880.9	2268.6	2915.1	2592.0	1953.7	2156.6	2906.0	1963.0	1796.5	1850	1925		2250
Net Profit ($mill)	153.7	138.1	149.4	240.5	175.0	196.2	207.7	240.3	264.7	290.8	315	330		410
Income Tax Rate	26.3%	15.5%	17.2%	- -	- -	- -	10.3%	22.0%	15.9%	23.0%	21.5%	22.0%		22.0%
Net Profit Margin	5.6%	7.3%	6.6%	8.2%	6.7%	10.0%	9.6%	8.3%	13.5%	16.2%	16.9%	17.0%		18.2%
Long-Term Debt Ratio	43.2%	47.7%	44.6%	45.4%	49.8%	55.1%	57.0%	57.8%	58.2%	56.7%	56.5%	56.0%		55.0%
Common Equity Ratio	56.8%	52.3%	55.4%	54.6%	50.2%	44.9%	43.0%	42.2%	41.8%	43.3%	43.5%	44.0%		45.0%
Total Capital ($mill)	1950.6	2230.1	2233.7	2599.6	3088.9	4104.2	3793.0	4302.6	4758.8	5079.9	5350	5550		6300
Net Plant ($mill)	2128.3	2407.7	2609.7	2651.0	3041.2	3983.0	4213.5	4649.9	5022.1	5403.2	5750	6000		6800
Return on Total Cap'l	8.6%	6.9%	7.7%	10.1%	6.4%	5.6%	6.5%	6.8%	5.5%	5.7%	6.0%	6.0%		6.5%
Return on Shr. Equity	13.9%	11.8%	12.1%	16.9%	11.3%	10.6%	12.7%	13.2%	13.3%	13.2%	13.5%	13.5%		14.5%
Return on Com Equity	13.9%	11.8%	12.1%	16.9%	11.3%	10.6%	12.7%	13.2%	13.3%	13.2%	13.5%	13.5%		14.5%
Retained to Com Eq	7.0%	4.8%	5.0%	10.2%	4.6%	4.3%	5.6%	6.2%	5.7%	5.7%	5.5%	5.0%		6.5%
All Div'ds to Net Prof	50%	60%	59%	40%	59%	60%	56%	53%	58%	58%	58%	61%		56%

CURRENT POSITION

($MILL.)	2023	2024	12/31/24
Cash Assets	1.0	1.0	1.9
Other	531.1	553.6	728.8
Current Assets	532.1	554.6	730.7
Accts Payable	203.1	169.2	112.5
Debt Due	368.3	480.8	428.6
Other	235.2	237.8	277.6
Current Liab.	806.6	887.8	818.7
Fix. Chg. Cov.	331%	480%	695%

ANNUAL RATES

of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '22-'24 to '28-'30
Revenues	-4.5%	-5.0%	2.5%
"Cash Flow"	7.0%	6.5%	5.0%
Earnings	5.5%	5.0%	5.0%
Dividends	7.0%	7.0%	5.0%
Book Value	7.0%	5.0%	4.5%

QUARTERLY REVENUES ($ mill.) A

Fiscal Year Ends	Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2022	675.9	912.3	552.3	765.5	2906.0
2023	723.6	644.0	264.1	331.3	1963.0
2024	467.2	657.9	275.6	395.8	1796.5
2025	488.4	675	285	401.6	1850
2026	510	700	295	420	1925

EARNINGS PER SHARE A B

Fiscal Year Ends	Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2022	.69	1.36	d.04	.49	2.50
2023	1.14	1.16	.10	.31	2.71
2024	.74	1.41	d.09	.89	2.95
2025	1.28	1.50	Nil	.32	3.10
2026	1.00	1.70	.10	.40	3.20

QUARTERLY DIVIDENDS PAID C■

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	.3325	.3325	.3325	.3625	1.36
2022	.3625	.3625	.3625	.3625	1.45
2023	.39	.39	.39	.39	1.56
2024	.42	.42	.42	.45	1.71
2025	.45				

BUSINESS: New Jersey Resources Corp. is a holding company providing retail/wholesale energy svcs. to customers in NJ, and in states from the Gulf Coast to New England, and Canada. New Jersey Natural Gas had 583,000 cust. at 9/30/24. Fiscal 2024 volume: 158 bill. cu. ft. (16% interruptible, 41% residential, commercial & firm transportation, 43% other). N.J. Natural Energy subsidiary provides unregulated retail/wholesale natural gas and related energy svcs. 2024 dep. rate: 3.2%. Has 1,370 empls. Off./dir. own less than 1% of common; BlackRock, 17.3%; Vanguard, 11.9% (12/24 Proxy). CEO, President & Director: Steven D. Westhoven. Incorporated: New Jersey. Address: 1415 Wyckoff Road, Wall, NJ 07719. Telephone: 732-938-1480. Web: www.njresources.com.

New Jersey Resources finished fiscal 2024 in good shape. (Year ended September 30th.) The company closed out the year with a better-than-expected bottom-line result in the fiscal fourth quarter. Full year earnings per share advanced a solid 9%, to $2.95. September's significant year-over-year increase came from wider fuel margins and lower operations and maintenance expense, offset somewhat by an uptick in depreciation. The company invested more than $500 million over the year, with over 40% of capital expenditures providing immediate returns. Operations at Clean Energy Ventures accelerated throughout the year, with its residential solar portfolio selling out, generating $135 million that will be reinvested, and over 70 megawatts of solar projects either completed or under construction (of 1 gigawatt in the pipeline). The Storage and Transportation business also showed strengths, highlighted by a recent rate case filed for the recovery of investments in the Adelphia Gateway project. The company did well setting up good growth opportunities.
The first quarter of fiscal 2025 was also a standout. The bottom line advanced to $1.28 from $0.74 in the year before. A $157 million annual revenue increase from the natural gas utility rate case settlement, effective November 21st, was a contributing factor. Favorable winter conditions also contributed to the strong operating performance.
We have raised out earnings targets. Notably, we've lifted our fiscal 2025 bottom-line estimate by $0.20, to $3.10 per share. This is in line with management's predictions. We have also initiated targets for 2026 and upped our 3- to 5-year calls. The company is set to invest roughly $1.5 billion over the next two years, targeting infrastructure improvements, clean energy expansion, and storage and transportation efficiency. We also look for the Adelphia rate case to conclude in the current year.
The stock may appeal to conservative long-term accounts. NJR's earnings growth, rooted in a strong regional energy economy, is a solid foundation for returns. Too, the company's steady dividend growth trajectory adds to its overall value. The issue is untimely, however.
Earl B. Humes   *February 21, 2025*

(A) Fiscal year ends Sept. 30th.
(B) Diluted earnings. Qtly. revenues and eqs. may not sum to total due to rounding and change in shares outstanding. Next earnings report due early May.
(C) Dividends historically paid in early Jan., April, July, and October. ■ Dividend reinvestment plan available.
(D) Includes regulatory assets in 2024: $612.6 million, $6.16/share.
(E) In millions, adjusted for 3/15 split.

Company's Financial Strength	A
Stock's Price Stability	85
Price Growth Persistence	40
Earnings Predictability	65

NISOURCE INC. NYSE-NI

RECENT PRICE	38.11	P/E RATIO	21.3 (Trailing: 21.3 / Median: 21.0)
RELATIVE P/E RATIO	1.16	DIV'D YLD	2.9%

VALUE LINE

TIMELINESS 4 Lowered 9/6/24
SAFETY 2 Raised 2/23/24
TECHNICAL 2 Lowered 2/21/25
BETA .95 (1.00 = Market)

| High: | 44.9 | 49.2 | 26.9 | 27.8 | 28.1 | 30.7 | 30.5 | 27.8 | 32.6 | 29.0 | 38.6 | 38.8 |
| Low: | 32.1 | 16.0 | 19.0 | 21.7 | 22.4 | 24.7 | 19.6 | 21.1 | 23.8 | 22.9 | 24.8 | 35.5 |

Target Price Range 2028 2029 2030

18-Month Target Price Range
Low-High Midpoint (% to Mid)
$26-$44 $35 (-10%)

2028-30 PROJECTIONS
	Price	Gain	Ann'l Total Return
High	55	(+45%)	12%
Low	40	(+5%)	5%

Institutional Decisions
	1Q2024	2Q2024	3Q2024
to Buy	331	328	334
to Sell	236	249	286
Hld's(000)	425705	439719	484273

% TOT. RETURN 1/25
	THIS STOCK	VL ARITH.* INDEX
1 yr.	51.3	20.7
3 yr.	44.3	25.6
5 yr.	52.8	83.9

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	© VALUE LINE PUB. LLC	28-30
24.02	22.99	21.33	16.31	18.04	20.47	14.58	13.90	14.46	13.74	13.63	11.95	12.09	14.20	12.31	12.45	13.00	13.50	Revenues per sh	15.60
2.96	3.19	2.98	3.13	3.41	3.60	2.27	2.71	2.07	2.86	3.17	3.15	3.26	3.56	3.63	3.90	4.00	4.15	"Cash Flow" per sh	5.30
.84	1.06	1.05	1.37	1.57	1.67	.63	1.00	.39	1.30	1.31	1.32	1.37	1.47	1.60	1.75	1.85	2.00	Earnings per sh A	2.55
.92	.92	.92	.94	.98	1.02	.63	.64	.70	.78	.80	.84	.88	.94	1.00	1.06	1.12	1.20	Div'd Decl'd per sh B■	1.44
2.81	2.88	3.99	4.83	5.99	6.42	4.26	4.57	5.03	4.88	4.72	4.49	4.53	5.35	5.91	5.25	5.50	6.00	Cap'l Spending per sh	7.00
17.54	17.63	17.71	17.90	18.77	19.54	12.04	12.60	12.82	13.08	13.36	12.44	13.33	14.63	17.40	22.35	23.20	23.50	Book Value per sh C	25.70
276.79	279.30	282.18	310.28	313.68	316.04	319.11	323.16	337.02	372.36	382.14	391.76	405.30	412.14	447.38	470.00	485.00	500.00	Common Shs Outst'g D	525.00
14.3	15.3	19.4	17.9	18.9	22.7	37.3	23.2	64.4	19.3	21.3	18.7	18.0	19.6	16.8	17.5	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	19.0
.95	.97	1.22	1.14	1.06	1.19	1.88	1.22	3.24	1.04	1.13	.96	.97	1.13	.93	.97			Relative P/E Ratio	1.05
7.6%	5.7%	4.5%	3.8%	3.3%	2.7%	3.5%	2.8%	2.8%	3.1%	2.9%	3.4%	3.6%	3.3%	3.7%	3.5%			Avg Ann'l Div'd Yield	3.0%

CAPITAL STRUCTURE as of 9/30/24
Total Debt $13614.5 mill. Due in 5 Yrs $4536 mill.
LT Debt $12086.3 mill. LT Interest $505 mill.
(Interest cov. earned: 5.5x) (54% of Cap'l)

Leases, Uncapitalized Annual rentals $9.6 mill.
Pension Assets-12/23 $1.4 bill. Oblig. $1.4 bill.

Common Stock 466,778,943 shs.
as of 10/22/24

MARKET CAP: $17.8 billion (Large Cap)

	4651.8	4492.5	4874.6	5114.5	5208.9	4681.7	4899.6	5850.6	5505.4	5850	6300	6750	Revenues ($mill)	8200
	198.6	328.1	128.6	478.3	549.8	562.6	626.3	703.3	759.1	825	895	1000	Net Profit ($mill)	1340
	41.6%	35.7%	71.0%	19.7%	17.0%	18.3%	15.7%	16.5%	17.8%	19.0%	19.0%	19.0%	Income Tax Rate	19.0%
	--	--	--	--	--	--	--	--	2.3%	3.0%	2.5%	2.5%	AFUDC % to Net Profit	2.5%
	60.7%	59.8%	63.5%	55.3%	56.8%	61.6%	56.9%	55.7%	57.2%	54.0%	54.0%	55.0%	Long-Term Debt Ratio	55.0%
	39.3%	40.2%	36.5%	37.9%	36.9%	32.5%	33.5%	35.3%	40.3%	46.0%	46.0%	45.0%	Common Equity Ratio	45.0%
	9792.0	10129	11832	12856	13843	14972	16131	17099	19325	22800	24450	26100	Total Capital ($mill)	30000
	12112	13068	14360	15543	16912	16620	17882	19843	22275	25750	27350	29300	Net Plant ($mill)	36250
	4.0%	5.0%	2.6%	5.1%	5.3%	5.0%	4.9%	5.1%	5.0%	3.5%	3.5%	4.0%	Return on Total Cap'l	4.5%
	5.2%	8.1%	3.0%	8.3%	9.2%	9.8%	9.0%	9.3%	9.2%	8.0%	8.0%	8.5%	Return on Shr. Equity	10.0%
	5.2%	8.1%	3.0%	9.6%	9.7%	10.4%	10.6%	10.8%	9.2%	8.0%	8.0%	8.5%	Return on Com Equity	10.0%
	NMF	3.0%	NMF	4.0%	3.8%	3.8%	4.2%	4.4%	3.9%	3.0%	3.0%	3.5%	Retained to Com Eq	4.5%
	NMF	63%	NMF	60%	64%	67%	64%	62%	60%	61%	61%	60%	All Div'ds to Net Prof	57%

CURRENT POSITION ($MILL.)
	2022	2023	9/30/24
Cash Assets	40.8	2245.4	126.2
Other	2543.5	2254.0	1489.8
Current Assets	2584.3	4499.4	1616.0
Accts Payable	899.5	749.4	614.6
Debt Due	1791.9	3072.4	1528.2
Other	1969.1	1443.3	1342.7
Current Liab.	4660.5	5265.1	3485.5
Fix. Chg. Cov.	255%	225%	445%

ANNUAL RATES
of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	-3.5%	-1.5%	5.5%
"Cash Flow"	1.0%	6.5%	5.5%
Earnings	1.0%	10.5%	9.5%
Dividends	--	6.0%	4.5%
Book Value	-2.0%	3.5%	5.0%

QUARTERLY REVENUES ($ mill.)
Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2022	1873	1183	1089	1704	5850.6
2023	1966	1090	1027	1422	5505.4
2024	1706	1085	1076	1983	5850
2025	1840	1170	1160	2130	6300
2026	1970	1255	1245	2280	6750

EARNINGS PER SHARE A
Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2022	.75	.12	.10	.50	1.47
2023	.77	.11	.19	.53	1.60
2024	.85	.21	.20	.49	1.75
2025	.85	.25	.20	.55	1.85
2026	.85	.30	.20	.65	2.00

QUARTERLY DIVIDENDS PAID B■
Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	.22	.22	.22	.22	.88
2022	.235	.235	.235	.235	.94
2023	.25	.25	.25	.25	1.00
2024	.265	.265	.265	.265	1.06
2025	.28				

BUSINESS: NiSource Inc. is a holding company for Northern Indiana Public Service Company (NIPSCO), which supplies electricity and gas to the northern third of Indiana. Customers: 488,833 electric in Indiana, 3,200,000 gas in Indiana, Ohio, Pennsylvania, Kentucky, Virginia, Maryland, through its Columbia subsidiaries. Revenue breakdown, 2023: electrical, 32%; gas, 67%; other, less than 1%. Generating capacity, coal, 69.4%; purchased & other, 30.6%. 2023 reported depreciation rates: 3.5% electric, 2.4% gas. Has 7,364 employees. Chairman: Richard L. Thompson. President & Chief Executive Officer: Lloyd Yates. Incorporated: Indiana. Address: 801 East 86th Avenue, Merrillville, Indiana 46410. Telephone: 877-647-5990. Internet: www.nisource.com.

NiSource likely posted good results in 2024. (Note: the company was scheduled to report its fourth-quarter numbers as we went to press with this Issue.) Earnings per share probably advanced upwards of 9% in the year. This follows a cycle of heavy capital investments over the past few years, that the company is now earning returns on. NiSource is positioned across the mid-Atlantic and mid-West regions of the United States, and much of its operating areas have experienced strong growth, particularly from new data centers and industrial hubs. The utility may have invested as much as $2.5 billion in 2024 on projects including infrastructure hardening and clean energy programs. In addition to some regulatory success with rate cases, the utility is also enjoying wider fuel margins, bolstering profits, although higher depreciation and interest expenses have offset this to a degree. The company's good performance and strong positioning have led to a roughly 50% increase in its stock price over the past year, as investors see the utility as an increasingly attractive safe haven for funds.
The year ahead may see growth slow slightly. We've raised our 2025 earnings target by $0.05 per share, to $1.85, owing to good fundamental conditions and ongoing net-plant expansion. However, an uptick in volatility from new economic policies could bring about some near-term headwinds as businesses readjust to the emerging regulatory environment. We expect the utility will remain fairly aggressive through the current capital investment cycle while growing its rate base.
Over the long run we expect fairly steady growth. Rate-base growth is likely to follow a high-single-digit trajectory, in line with other associated metrics, including net plant and earnings per share. The company's transition away from coal and investment in clean energy and infrastructure hardening should provide a substantial growth ramp to late decade.
The shares have much of the gains we foresee already baked into the price. The stock offers below-average 3- to 5-year appreciation potential. We think there are more appealing selections out there, though the issue may interest conservative accounts.
Earl B. Humes *February 21, 2025*

(A) Dil. EPS. Excl. gains (losses) on disc. ops.: '08, ($1.14); '15, (30¢); '18, ($1.48). Next eqs. report due early May. Qtl'y egs. may not sum to total due to rounding.
(B) Div'ds historically paid in mid-Feb., May, Aug., Nov. ■ Div'd reinv. avail.
(C) Incl. intang in '23: $1485.9 million, $3.33/sh.
(D) In mill.
(E) Spun off Columbia Pipeline Group (7/15)

Company's Financial Strength	A
Stock's Price Stability	95
Price Growth Persistence	25
Earnings Predictability	70

N.W. NATURAL NYSE-NWN

RECENT PRICE	40.00	P/E RATIO	14.1	(Trailing: 18.9 Median: 24.0)	RELATIVE P/E RATIO	0.77	DIV'D YLD	4.9%	VALUE LINE

TIMELINESS	4	Lowered 11/29/24	High: Low:	52.6 40.1	52.3 42.0
SAFETY	2	Raised 2/23/24			
TECHNICAL	2	Raised 1/3/25			
BETA	.90	(1.00 = Market)			

High: 52.6 52.3 66.2 69.5 71.8 74.1 77.3 56.8 57.6 52.4 44.3 41.5
Low: 40.1 42.0 48.9 56.5 51.5 57.2 42.3 41.7 42.4 35.7 34.8 38.0

Target Price Range 2028 2029 2030

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

18-Month Target Price Range
Low-High Midpoint (% to Mid)
$27-$47 $37 (-10%)

2028-30 PROJECTIONS
	Price	Gain	Ann'l Total Return
High	80	(+100%)	22%
Low	60	(+50%)	14%

Institutional Decisions
	1Q2024	2Q2024	3Q2024
to Buy	131	132	119
to Sell	105	104	118
Hld's(000)	28777	29331	37328

Percent shares traded: 15 10 5

% TOT. RETURN 1/25
	THIS STOCK	VL ARITH.* INDEX
1 yr.	19.1	20.7
3 yr.	1.1	25.6
5 yr.	-29.6	83.9

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	© VALUE LINE PUB. LLC	28-30
38.17	30.56	31.72	27.14	28.02	27.64	26.39	23.61	26.52	24.45	24.49	25.29	27.64	29.20	31.82	28.05	29.20	30.20	Revenues per sh	30.00
5.20	5.18	5.00	4.94	5.04	5.05	4.91	4.93	1.04	5.28	5.15	5.69	6.17	5.71	5.83	5.45	6.50	6.65	"Cash Flow" per sh	7.45
2.83	2.73	2.39	2.22	2.24	2.16	1.96	2.12	d1.94	2.33	2.19	2.30	2.56	2.54	2.59	2.30	3.00	3.10	Earnings per sh A	3.45
1.60	1.68	1.75	1.79	1.83	1.85	1.86	1.87	1.88	1.89	1.90	1.91	1.92	1.93	1.94	1.95	1.96	1.97	Div'ds Decl'd per sh B■	2.00
5.09	9.35	3.76	4.91	5.13	4.40	4.37	4.87	7.43	7.43	7.95	9.18	9.49	9.53	8.70	9.75	9.50	10.00	Cap'l Spending per sh	11.50
24.88	26.08	26.70	27.23	27.77	28.12	28.47	29.71	25.85	26.41	28.42	29.05	30.04	33.09	34.12	36.50	37.60	40.30	Book Value per sh D	44.20
26.53	26.58	26.76	26.92	27.08	27.28	27.43	28.63	28.74	28.88	30.47	30.59	31.13	35.53	37.63	41.00	43.00	45.00	Common Shs Outst'g C	50.00
15.2	17.0	19.0	21.1	19.4	20.7	23.7	26.9	--	26.6	30.9	25.0	19.5	19.6	16.6	16.8	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	20.0
1.01	1.08	1.19	1.34	1.09	1.09	1.19	1.41	--	1.44	1.65	1.28	1.05	1.13	.92	.93			Relative P/E Ratio	1.10
3.7%	3.6%	3.9%	3.8%	4.2%	4.1%	4.0%	3.3%	3.0%	3.0%	2.8%	3.3%	3.8%	3.9%	4.5%	5.1%			Avg Ann'l Div'd Yield	2.9%

CAPITAL STRUCTURE as of 9/30/24
Total Debt $1736 mill. Due in 5 Yrs $1395 mill.
LT Debt $1555 mill. LT Interest $80 mill.
(Total interest coverage: 5.0x)

Pension Assets-12/23 $283.0 mill.
Oblig. $425.5 mill.
Pfd Stock None
Common Stock 40,132,048 shares as of 10/31/24
MARKET CAP $1.6 billion (Small Cap)

	723.8	676.0	762.2	706.1	746.4	773.7	860.4	1037.4	1197.5	1150	1255	1360	Revenues ($mill)	1500
	53.7	58.9	d55.6	67.3	65.3	70.3	78.7	86.3	93.9	95.0	130	140	Net Profit ($mill)	175
	40.0%	40.9%	--	26.4%	16.2%	23.1%	25.8%	25.2%	25.6%	25.0%	25.0%	25.0%	Income Tax Rate	25.0%
	7.4%	8.7%	NMF	9.5%	8.8%	9.1%	9.1%	8.3%	7.8%	8.2%	10.3%	10.3%	Net Profit Margin	11.5%
	42.5%	44.4%	47.9%	48.1%	48.2%	49.2%	52.8%	51.5%	52.6%	52.5%	55.0%	55.0%	Long-Term Debt Ratio	55.0%
	57.5%	55.6%	52.1%	51.9%	51.8%	50.8%	47.2%	48.5%	47.4%	47.5%	45.0%	45.0%	Common Equity Ratio	45.0%
	1357.7	1529.8	1426.0	1468.9	1672.0	1748.8	1979.7	2421.6	2709.3	3150	3600	4030	Total Capital ($mill)	4915
	2182.7	2260.9	2255.0	2421.4	2438.9	2654.8	2871.4	3114.4	3358.1	3750	4150	4535	Net Plant ($mill)	5320
	5.5%	5.1%	NMF	5.8%	5.2%	5.2%	5.1%	4.7%	4.9%	3.0%	3.5%	3.5%	Return on Total Cap'l	3.5%
	6.9%	6.9%	NMF	8.8%	7.5%	7.9%	8.4%	7.3%	7.3%	6.5%	8.0%	7.5%	Return on Shr. Equity	8.0%
	6.9%	6.9%	NMF	8.8%	7.5%	7.9%	8.4%	7.3%	7.3%	6.5%	8.0%	7.5%	Return on Com Equity	8.0%
	.6%	.9%	NMF	2.1%	1.4%	1.7%	2.4%	2.0%	2.1%	1.0%	2.5%	2.5%	Retained to Com Eq	2.5%
	92%	87%	NMF	76%	82%	79%	71%	73%	72%	85%	65%	64%	All Div'ds to Net Prof	58%

CURRENT POSITION ($MILL.)
	2022	2023	9/30/24
Cash Assets	29.3	32.9	35.0
Other	714.9	568.5	373.9
Current Assets	744.2	601.4	408.9
Accts Payable	180.7	145.4	96.3
Debt Due	348.9	240.7	180.6
Other	369.1	310.8	290.5
Current Liab.	898.7	696.9	567.4
Fix. Chg. Cov.	320%	240%	350%

ANNUAL RATES of change (per sh)
	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '28-'30
Revenues	--	3.5%	4.5%
"Cash Flow"	1.5%	9.5%	5.0%
Earnings	1.0%	25.0%	6.5%
Dividends	1.0%	.5%	.5%
Book Value	2.0%	3.5%	4.0%

QUARTERLY REVENUES ($ mill.)
Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2022	350.3	195.0	116.8	375.3	1037.4
2023	462.4	237.9	141.5	355.7	1197.5
2024	433.5	211.7	136.9	367.9	1150
2025	475	230	150	400	1255
2026	515	250	165	430	1360

EARNINGS PER SHARE A
Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2022	1.80	.05	d.56	1.36	2.54
2023	2.01	.03	d.65	1.21	2.59
2024	1.69	d.07	d.71	1.39	2.30
2025	2.10	.05	d.60	1.45	3.00
2026	2.15	.05	d.65	1.55	3.10

QUARTERLY DIVIDENDS PAID B■
Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	.48	.48	.48	.483	1.92
2022	.483	.483	.483	.485	1.93
2023	.485	.485	.485	.488	1.94
2024	.488	.488	.488	.49	1.95
2025	.49				

BUSINESS: Northwest Natural Holding Co. distributes natural gas to 1,000 communities, 795,000 customers, in Oregon (88% of customers) and in southwest Washington state. Principal cities served: Portland and Eugene, OR; Vancouver, WA. Service area population: 3.7 mill. (77% in OR). Company buys gas supply from Canadian and U.S. producers; has transportation rights on Northwest Pipeline system. Owns local underground storage. Rev. breakdown: residential, 38%; commercial, 23%; industrial, gas transportation, 39%. Employs 1,380. BlackRock Inc. owns 17.6% of shares; Vanguard, 12.4%; Off./Dir., .84% (4/24 proxy). CEO: David H. Anderson. Inc.: Oregon. Address: 220 NW 2nd Ave., Portland, OR 97209. Tel.: 503-226-4211. Internet: www.nwnatural.com.

Northwest Natural probably had a weak performance in 2024. (Note: The company was scheduled to release its full-year results as we went to press with this Issue.) Fourth-quarter earnings probably compared favorably versus years past, driven by the resolution of an Oregon gas utility rate case in October. The company's revenue requirement increased $93 million as a result. Unfortunately, regulators did not approve recovery for $14 million of investments in line extensions, which were previously allowed, and will result in a noncash disallowance charge in the quarter. A new rate case was filed for about half as much, expected to take effect in late 2025. Customer expansion and various auxillary water and waste-water business additions completed this year probably contributed to some growth. However, earnings for the full year likely decreased to around $2.30 per share, after having plataued at roughly $2.55 for the past three years. This is in large part due to regulatory lag that was partially resolved in the recent rate case, as well as specific non-recurring other income and taxes.

We expect earnings to rebound in the year ahead. The bottom line should find support from a mix of factors. The company has diversified market exposure to various geographies across natural gas, water, and renewables, which improves its ability to capitalize on several growth opportunities. Furthermore, its positioning in strong geographies adds to this expansion potential with single-family housing permits in the Portland area up 13% and relatively low unemployment lending strong underlying economic trends. We think the company could achieve earnings of $3.00 per share in 2025.

Long-term growth will likely be in the high-single digits. The company has room for further expansion through system buildouts, maintenance and innovation associated with an increasing focus on climate resiliency, which should help to drive investment out to late decade.

The stock offers solid recovery potential out three to five years, and boasts a high dividend yield. However, recent weakness makes this a below-average pick for year-ahead performance (Timeliness 4).
Earl B. Humes   February 21, 2025

(A) Diluted earnings per share. Excludes non-recurring items: '08, ($0.03); '09, $0.06; May not sum due to rounding. Next earnings report due in early May.
(B) Dividends historically paid in mid-February, May, August, and November.
■ Dividend reinvestment plan available.
(C) In millions.
(D) Includes intangibles. In 2023: $163 million, $4.33/share.

Company's Financial Strength	A
Stock's Price Stability	85
Price Growth Persistence	20
Earnings Predictability	20

ONE GAS, INC. NYSE-OGS

| RECENT PRICE | 70.20 | P/E RATIO | 16.9 | (Trailing: 18.3 / Median: 21.0) | RELATIVE P/E RATIO | 0.92 | DIV'D YLD | 3.8% | VALUE LINE |

TIMELINESS	4	Lowered 11/22/24	
SAFETY	2	New 6/2/17	
TECHNICAL	3	Lowered 2/21/25	
BETA	.85	(1.00 = Market)	

| | High: | 44.3 | 51.8 | 67.4 | 79.5 | 87.8 | 96.7 | 97.0 | 81.9 | 92.3 | 84.3 | 78.9 | 73.9 |
| | Low: | 31.9 | 38.9 | 48.0 | 61.4 | 62.2 | 75.8 | 63.7 | 62.5 | 68.9 | 55.5 | 57.7 | 66.4 |

Target Price Range 2028 2029 2030

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

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$44-$83	$64 (-10%)

2028-30 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	110	(+55%)	15%
Low	80	(+15%)	7%

Institutional Decisions

	1Q2024	2Q2024	3Q2024
to Buy	170	143	152
to Sell	147	160	146
Hld's(000)	51905	53086	62020

Percent shares traded: 21 / 14 / 7

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

2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	© VALUE LINE PUB. LLC	28-30
29.62	27.30	29.43	31.08	31.32	28.78	33.72	46.58	41.95	36.65	38.95	41.25	Revenues per sh	67.55
4.82	5.43	5.96	6.32	6.96	7.36	7.71	8.13	9.04	9.75	11.00	12.15	"Cash Flow" per sh	15.55
2.24	2.65	3.02	3.25	3.51	3.68	3.85	4.08	4.14	3.85	4.25	4.50	Earnings per sh A	5.25
1.20	1.40	1.68	1.84	2.00	2.16	2.32	2.48	2.60	2.64	2.68	2.72	Div'ds Decl'd per sh B■	2.90
5.63	5.91	6.81	7.50	7.91	8.87	9.23	11.01	11.79	12.10	12.30	12.45	Cap'l Spending per sh	12.75
35.24	36.12	37.47	38.86	40.35	42.01	43.81	46.69	48.91	51.75	55.95	59.25	Book Value per sh	69.45
52.26	52.28	52.31	52.57	52.77	53.17	53.63	55.35	56.55	56.50	56.50	56.50	Common Shs Outst'g C	57.00
19.8	22.7	23.5	23.1	25.3	21.7	18.9	19.9	18.0	17.3	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	18.0
1.00	1.19	1.18	1.25	1.35	1.11	1.02	1.15	1.01	.96			Relative P/E Ratio	1.00
2.7%	2.3%	2.4%	2.5%	2.3%	2.7%	3.2%	3.1%	3.5%	4.0%			Avg Ann'l Div'd Yield	3.1%
1547.7	1427.2	1539.6	1633.7	1652.7	1530.3	1808.6	2578.0	2372.0	2070	2200	2330	Revenues ($mill)	3850
119.0	140.1	159.9	172.2	186.7	196.4	206.4	221.7	231.2	220	240	255	Net Profit ($mill)	300
38.0%	37.8%	36.4%	23.7%	18.7%	17.5%	16.3%	17.3%	14.9%	16.5%	17.0%	17.5%	Income Tax Rate	20.0%
7.7%	9.8%	10.4%	10.5%	11.3%	12.8%	11.4%	8.6%	9.7%	10.6%	10.9%	10.9%	Net Profit Margin	7.8%
39.5%	38.7%	37.8%	38.6%	37.7%	41.5%	61.1%	50.7%	43.8%	46.0%	45.0%	45.0%	Long-Term Debt Ratio	45.0%
60.5%	61.3%	62.2%	61.4%	62.3%	58.5%	38.9%	49.3%	56.2%	54.0%	55.0%	55.0%	Common Equity Ratio	55.0%
3042.9	3080.7	3153.5	3328.1	3415.5	3815.7	6032.9	5246.2	4926.3	5415	5750	6085	Total Capital ($mill)	7200
3511.9	3731.6	4007.6	4283.7	4565.2	4867.1	5190.8	5628.8	6135.2	6650	7025	7400	Net Plant ($mill)	8500
4.7%	5.2%	5.8%	5.9%	6.4%	6.0%	3.9%	5.0%	5.9%	5.5%	5.5%	5.5%	Return on Total Cap'l	5.5%
6.5%	7.4%	8.2%	8.4%	8.8%	8.8%	8.8%	8.6%	8.4%	7.5%	7.5%	7.5%	Return on Shr. Equity	7.5%
6.5%	7.4%	8.2%	8.4%	8.8%	8.8%	8.8%	8.6%	8.4%	7.5%	7.5%	7.5%	Return on Com Equity	7.5%
3.1%	3.5%	3.7%	3.7%	3.8%	3.7%	3.5%	3.4%	3.2%	2.5%	3.0%	3.0%	Retained to Com Eq	3.5%
53%	52%	55%	56%	56%	58%	60%	60%	62%	68%	63%	60%	All Div'ds to Net Prof	55%

CAPITAL STRUCTURE as of 9/30/24
Total Debt $3365.3 mill. Due in 5 Yrs $890.0 mill.
LT Debt $2384.9 mill. LT Interest $120.0 mill.
(LT interest earned: 3.4x; total interest coverage: 3.4x)

Leases, Uncapitalized Annual rentals $6.7 mill.
Pfd Stock None
Pension Assets-12/23 $977.0 mill.
Oblig. $962.1 mill.

Common Stock 56,655,256 shs.
as of 10/28/24
MARKET CAP: $4.0 billion (Mid Cap)

CURRENT POSITION ($MILL.)

	2022	2023	9/30/24
Cash Assets	9.7	18.8	18.8
Other	1207.9	746.4	671.7
Current Assets	1217.6	765.2	690.5
Accts Payable	360.5	278.1	146.8
Debt Due	572.7	888.9	980.4
Other	256.2	310.2	260.4
Current Liab.	1189.4	1477.2	1387.6
Fix. Chg. Cov.	540%	390%	405%

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '28-'30
Revenues	--	7.0%	7.5%
"Cash Flow"	--	7.0%	9.5%
Earnings	--	6.0%	4.0%
Dividends	--	8.5%	2.5%
Book Value	--	4.5%	6.0%

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2022	971.5	428.9	359.4	818.2	2578.0
2023	1032.1	398.1	335.8	606.0	2372.0
2024	758.3	354.1	340.4	617.2	2070
2025	800	375	350	675	2200
2026	825	400	380	725	2330

EARNINGS PER SHARE A

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2022	1.83	.59	.44	1.23	4.08
2023	1.84	.58	.45	1.27	4.14
2024	1.75	.48	.34	1.28	3.85
2025	1.85	.58	.44	1.38	4.25
2026	1.94	.63	.48	1.45	4.50

QUARTERLY DIVIDENDS PAID B■

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	.58	.58	.58	.58	2.32
2022	.62	.62	.62	.62	2.48
2023	.65	.65	.65	.65	2.60
2024	.66	.66	.66	.66	2.64
2025	.67				

% TOT. RETURN 1/25

	THIS STOCK	VL ARITH.* INDEX
1 yr.	21.9	20.7
3 yr.	2.6	25.6
5 yr.	-10.8	83.9

BUSINESS: ONE Gas, Inc. provides natural gas distribution services to more than two million customers. There are three divisions: Oklahoma Natural Gas, Kansas Gas Service, and Texas Gas Service. The company purchased 160 Bcf of natural gas supply in 2023, compared to 165 Bcf in 2022. Total volumes delivered by customer (fiscal 2023): transportation, 59.3%; residential, 29.7%; commercial & industrial, 10.6%; other, .4%. ONE Gas has around 3,900 employees. BlackRock owns 14.5% of common stock; The Vanguard Group, 11.6%; American Century Investment, 7.5%; officers and directors, 1.5% (4/24 Proxy). CEO: Robert S. McAnnally. Incorporated: Oklahoma. Address: 15 East Fifth Street, Tulsa, Oklahoma 74103. Tel.: 918-947-7000. Internet: www.onegas.com.

Earnings for ONE Gas likely took a turn for the worse in 2024. (Please be aware that fourth-quarter results were not released to the public when this report went to press.) Recall that during the first nine months, the bottom line retreated 10.5%, to $2.57 per share, relative to the $2.87 tally that was posted for the same period in 2023. This stemmed partially from higher employee-related costs, given planned investments in the company's workforce and ongoing in-sourcing efforts. Depreciation & amortization expense climbed, too, reflecting additional capital investments. Furthermore, sales volumes decreased and interest charges rose. So, it appears that earnings per share finished in the vicinity of $3.85 for the full year. That would mark a 7% decline from 2023's $4.14 total.

We believe that a recovery is possible in 2025, however. New rates should be one contributing factor. Benefits arising from additional expansion of the customer base ought to lift results, as well. Operating expenses (including those already mentioned) stand to continue to mount, but that is to be expected as the company grows. Consequently, profits might advance around 10%, to $4.25 a share. Regarding 2026, we look for the bottom line to increase another 6% or so, to $4.50 per share, assuming that business conditions cooperate.

The quarterly dividend was raised by one cent, to $0.67 a share. ONE Gas states that it intends to keep the average annual dividend growth rate between 1% and 2% through fiscal 2029. We think that significantly slower increase, compared to previous years, is partially because of climbing operating costs. In any case, the payout ratio out to the beginning of the next decade should be reasonable, in the neighborhood of 55%.

What about OGS shares? The dividend yield is decent when measured against those of other stocks in *Value Line's* Natural Gas Utility category. But, at the recent quotation, capital appreciation potential over the 3- to 5-year horizon is nothing to write home about. Meanwhile, the equity is pegged to trail the market for the next six to 12 months (Timeliness rank 4: Below Average).

Frederick L. Harris, III   February 21, 2025

(A) Diluted EPS. Excludes nonrecurring gain: 2017, $0.06. Next earnings report due early May. Quarterly EPS figures for 2022 don't equal total due to rounding.
(B) Dividends historically paid in early March, June, Sept., and Dec. ■ Dividend reinvestment plan. Direct stock purchase plan.
(C) In millions.

Company's Financial Strength	B++
Stock's Price Stability	85
Price Growth Persistence	40
Earnings Predictability	100

SOUTHWEST GAS NYSE-SWX

RECENT PRICE	76.38	P/E RATIO	19.7	(Trailing: 30.7 / Median: 21.0)	RELATIVE P/E RATIO	1.07	DIV'D YLD	3.2%	VALUE LINE

| | High: | 64.3 | 63.7 | 79.6 | 86.9 | 62.5 | 53.5 | 50.5 | 47.2 | 67.3 | 92.9 | 81.6 | 45.7 | 73.3 | 57.0 | 73.5 | | |
| | Low: | | 42.7 | 50.6 | 53.5 | 72.3 | 62.5 | 59.5 | 55.6 | 53.8 | 57.6 | 76.9 | | | | | Target Price Range 2028 2029 2030 |

TIMELINESS — Suspended 11/17/23
SAFETY 2 Raised 2/23/24
TECHNICAL — Suspended 11/17/23
BETA .95 (1.00 = Market)

18-Month Target Price Range
Low-High Midpoint (% to Mid)
$50-$90 $70 (-10%)

2028-30 PROJECTIONS
	Price	Gain	Ann'l Total Return
High	100	(+30%)	10%
Low	75	(Nil)	3%

Institutional Decisions

	1Q2024	2Q2024	3Q2024
to Buy	122	141	144
to Sell	149	131	138
Hld'000s	73232	66912	69977

Percent shares traded 15 / 10 / 5

LEGENDS
0.80 × Dividends p sh divided by Interest Rate
Relative Price Strength
Options: Yes
Shaded area indicates recession

% TOT. RETURN 1/25
	THIS STOCK	VL ARITH.* INDEX
1 yr.	20.7	29.2
3 yr.	25.6	18.6
5 yr.	13.6	83.9

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	© VALUE LINE PUB. LLC 28-30
Revenues per sh	42.00	41.07	41.77	42.08	45.61	52.00	51.82	53.00	54.31	56.72	57.68	60.91	73.90	75.93	71.55	73.55	78.75		84.00
"Cash Flow" per sh	6.16	6.46	6.81	7.73	8.24	8.47	8.62	9.29	8.83	8.14	9.40	9.87	3.98	8.27	8.75	9.85	10.51		
Earnings per sh A	1.94	2.27	2.43	2.86	3.01	3.11	2.92	3.62	3.68	3.39	3.94	4.14	d3.10	2.13	2.80	3.60	4.00		4.85
Div'ds Decl'd per sh B■†	.95	1.00	1.06	1.18	1.46	1.62	1.80	1.98	2.08	2.38	2.28	2.46	2.48	2.48	2.48	2.48	3.00		
Cap'l Spending per sh	4.81	4.73	8.29	8.57	7.86	8.53	10.30	11.15	12.97	14.44	17.06	14.43	11.84	12.80	11.80	12.50	13.50		14.50
Book Value per sh	24.44	25.62	26.66	29.99	28.35	30.47	31.95	33.61	35.03	36.03	45.56	45.77	48.89	46.25	51.70	54.25	55.50		58.65
Common Shs Outst'g C	45.09	45.56	46.15	46.36	46.52	47.38	47.48	48.09	50.01	57.19	57.19	60.42	67.12	71.56	72.00	73.00	73.00		75.00
Avg Ann'l P/E Ratio	12.2	14.0	15.7	15.0	15.8	17.9	19.4	21.6	22.2	20.6	21.3	16.8	19.9	29.0	25.5		Bold figures are Value Line estimates		18.0
Relative P/E Ratio	.81	.89	.98	.95	.96	.94	.98	1.13	1.12	1.11	.98	1.08	--	1.61	1.42				1.00
Avg Ann'l Div'd Yield	4.0%	3.2%	2.8%	2.8%	2.8%	2.7%	2.7%	2.9%	2.6%	2.5%	2.7%	2.6%	3.3%	3.5%	4.0%	3.2%			3.4%

CAPITAL STRUCTURE as of 9/30/24																			
Revenues ($mill)	6300								2460.5	2548.8	2880.0	3680.5	3298.2	3119.9	232.3	200.8	5434.0	4960.0	5150	5400	5750

Revenues ($mill): 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 :
1920.0...

Net Profit ($mill): 95 | 106 | 118 | 138.3 | 152.0 | 173.8 | 182.1 | 213.9 | 232.3 | 200.8 | d203.3 | 150.9 | 200 | 265 | 290 | 365

Income Tax Rate: 33.9% | 32.8% | 25.3% | 20.5% | 21.6% | 16.1% | 21.2% | 21.0% | 21.0% | 21.0% | -- | 21.0% | 21.0%

Net Profit Margin: 5.6% | 6.2% | 6.8% | 6.9% | 7.0% | 5.5% | 2.8% | NMF | 3.9% | 4.9% | 5.1% | 5.8%

Long-Term Debt Ratio: 50.7% | 51.8% | 50.2% | 52.1% | 49.5% | 47.9% | 49.8% | 48.3% | 47.2% | 59.0% | 58.2% | 55.0% | 55.0% | 55.0% | 56.0%

Common Equity Ratio: 49.3% | 48.2% | 49.8% | 47.9% | 50.5% | 52.1% | 50.2% | 51.7% | 41.8% | 45.0% | 45.0% | 45.0% | 44.0%

Total Capital ($mill): 3143.5 | 3213.5 | 3613.2 | 3613.3 | 4359.3 | 4808.4 | 5407.2 | 7069.6 | 7462.1 | 7919.9 | 8200 | 8800 | 9000 | 10000

Net Plant ($mill): 3891.1 | 4132.0 | 4523.7 | 5092.2 | 5685.2 | 6176.1 | 7024.5 | 7518.2 | 8100 | 8700 | 9275 | 10450

Return on Total Cap'l: 5.5% | 5.8% | 5.8% | 5.2% | 5.4% | 5.3% | 3.4% | NMF | 2.5% | 3.0% | 3.0% | 3.5%

Return on Shr. Equity: 8.7% | 9.1% | 9.6% | 8.1% | 8.8% | 8.7% | 6.8% | NMF | 4.6% | 5.5% | 6.5% | 7.0% | 8.5%

Return on Com Equity: 8.7% | 9.1% | 9.6% | 8.1% | 8.5% | 8.7% | NMF | 4.6% | 5.5% | 6.5% | 7.0% | 8.5%

Retained to Com Eq: 4.0% | 4.1% | 4.5% | 3.6% | 3.9% | 4.0% | 2.1% | NMF | .5% | 2.0% | 2.5% | 3.0%

All Div'ds to Net Prof: 54% | 55% | 53% | 55% | 54% | 54% | 69% | NMF | 89% | 94% | 70% | 62% | 62%

MARKET CAP: $5.5 billion (Mid Cap)

CURRENT POSITION	2022	2023	9/30/24
($MILL.)			
Cash Assets	123.1	106.5	456.6
Other	3584.6	1774.6	998.8
Current Assets	3707.7	1881.1	1455.4
Accts Payable	662.1	346.9	227.0
Debt Due	1587.4	671.7	663.0
Other	812.7	666.8	565.7
Current Liab.	1702.7	1684.8	1773.5
Fix. Chg. Cov.	145%	265%	225%

ANNUAL RATES (per sh)
	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '28-'30
Revenues	5.5%	6.5%	6.0%
"Cash Flow"	-3.0%	-7.0%	8.5%
Earnings	-3.0%	--	10.0%
Dividends	6.5%	3.5%	5.5%
Book Value	4.5%	2.0%	7.5%

QUARTERLY REVENUES ($ mill.)
Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2022	1267.4	1146.1	1125.6	1420.9	4960.0
2023	1603.3	1293.6	1169.5	1387.6	5454.0
2024	1581.0	1182.1	1079.2	1307.6	5150
2025	1660	1240	1225	1275	5400
2026	1770	1320	1305	1355	5750

EARNINGS PER SHARE A D
Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2022	1.58	d.10	d.18	d3.10
2023	.67	.40	.04	1.02	2.13
2024	1.22	.25	--	1.33	2.80
2025	1.95	.65	.15	1.05	3.60
2026	1.95	.70	.15	1.20	4.00

QUARTERLY DIVIDENDS PAID B■†
Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	.570	.595	.595	.595	2.36
2022	.595	.595	.62	.62	2.46
2023	.62	.62	.62	.62	2.48
2024	.62	.62	.62	.62	2.48
2025	.62				

CAPITAL STRUCTURE as of 9/30/24
Total Debt $5045.1 mill. Due in 5 Yrs $1008 mill.
LT Debt $4382.1 mill. LT Interest $300 mill.
(Total interest coverage: 2.6x)
(55% of Cap'l)
Leases, Uncapitalized Annual rentals $24.4 mill.
Pension Assets-12/23 $1520.0 mill.
Oblig. $1352.2 mill.
Pfd Stock None
Common Stock 71,743,666 shs.
as of 10/25/24

BUSINESS: Southwest Gas Holdings, Inc. is the parent holding company of Southwest Gas. Centuri Group spun-off 4/22/24. Southwest Gas is a regulated gas distributor serving 2.2 million customers in Arizona, Nevada, and California. 2023 margin mix: residential 68%; small commercial, 20%; large commercial and industrial, 8%; transportation, 4%. Total throughput: 2.2 billion therms. Southwest has 2,371 employees. Centuri 12,572. Off. & dir. own <4% of common stock; Carl C. Icahn, 15.4%; BlackRock, 13.0%; The Vanguard Group, 10.1% (3/24 Proxy). Chairman: Michael J. Melarkey. Pres. & CEO: Karen S. Haller. Inc.: DE. Addr.: 8360 S. Durango Drive, P.O. Box 98510 Las Vegas, Nevada 89193. Telephone: 702-876-7237. Internet: www.swgas.com.

Southwest Gas Holdings' performance has been affected by significant corporate restructuring over the past two years. In early 2023 the company sold its MountainWest Pipeline business, then spun off Centuri Group's infrastructure services operation in an early 2024 initial public offering, although it still retains a significant portion of the newly issued stock. These changes have contributed to many unique charges and uneven results over the past few years. All of this is in the aim of transitioning into a fully regulated natural gas utility. We think this strategy will likely enhance operating efficiency and maximize shareholder value over the long run. The sale of these auxiliary businesses has also helped to provide capital to invest and optimize the capital structure.

The pure-play utility likely had a good showing for 2024. We expect the company reported net income of at least $200 million, though management's more optimistic guidance range calls for this figure in the range of roughly $235 million to $245 million. Capital expenditures likely totaled $850 million.

Southwest has a fairly bright outlook for the years ahead. One key strength is in the company's strong geographic positioning. Southwest's operating footprint includes some of the fastest growing regions in the country in Arizona and Nevada. These areas also offer good potential for semiconductor manufacturing and data centers. To help meet new and existing demand, management has a robust pipeline of capital investments and projects rate base growth of 10% per year. The company also operates in a more favorable regulatory environment with respect to rate case executions.

The stock appears to price in many of these good qualities. The equity has increased roughly 30% over the past year, significantly diminishing long-term upside potential at the recent quotation. The stock's dividend yield is above average, but many industry peers offer more appeal. Too, there is still significant uncertainties regarding the company's future performance as a stand-alone utility group. Ultimately, we think most investors will want to turn the page.

Earl B. Humes   February 21, 2025

(A) Diluted earnings. Excl. nonrec. gains (losses): '22, 10¢. Next egs. report due early May. (B) Dividends historically paid early March, June, September, and December. ■†Div'd reinvestment and stock purchase plan avail. (C) In millions. (D) Totals may not sum due to rounding. (E) Rank suspended 11/17/2023 for spin-off of the Centuri Group.

Company's Financial Strength A
Stock's Price Stability 80
Price Growth Persistence 25
Earnings Predictability 5

SPIRE INC. NYSE-SR

RECENT PRICE	71.88	
P/E RATIO	18.2 (Trailing: 17.4 / Median: 18.0)	
RELATIVE P/E RATIO	0.99	
DIV'D YLD	4.4%	

VALUE LINE

TIMELINESS	3	Raised 2/14/25
SAFETY	2	Raised 6/20/03
TECHNICAL	3	Lowered 1/24/25
BETA	.90	(1.00 = Market)

| High: | 55.2 | 61.0 | 71.2 | 82.9 | 81.1 | 88.0 | 88.0 | 77.9 | 79.2 | 75.8 | 73.6 | 73.5 |
| Low: | 44.0 | 49.1 | 57.1 | 62.3 | 60.1 | 71.7 | 50.6 | 59.3 | 61.5 | 53.8 | 56.4 | 65.1 |

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

Target Price Range 2028 2029 2030

18-Month Target Price Range
Low-High   Midpoint (% to Mid)
$53-$83 $68 (-5%)

2028-30 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	105	(+45%)	13%
Low	80	(+10%)	7%

Institutional Decisions

	1Q2024	2Q2024	3Q2024
to Buy	135	160	159
to Sell	134	108	130
Hld's(000)	48507	49797	57334

Percent shares traded: 18 / 12 / 6

% TOT. RETURN 1/25

	THIS STOCK	VL ARITH.* INDEX
1 yr.	40.1	20.7
3 yr.	31.3	25.6
5 yr.	10.8	83.9

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	© VALUE LINE PUB. LLC	28-30
85.49	77.83	71.48	49.90	31.10	37.68	45.59	33.68	36.07	38.78	38.30	35.96	43.24	41.88	50.12	44.94	*41.75*	*41.95*	Revenues per sh A	47.90
4.56	4.11	4.62	4.58	3.12	3.87	6.15	6.16	6.54	7.55	7.12	5.25	9.09	8.44	8.60	8.92	*8.90*	*9.35*	"Cash Flow" per sh	10.85
2.92	2.43	2.86	2.79	2.02	2.35	3.16	3.24	3.43	4.33	3.52	1.44	4.96	3.95	3.85	4.19	*3.95*	*4.15*	Earnings per sh A B	5.25
1.53	1.57	1.61	1.66	1.70	1.76	1.84	1.96	2.10	2.25	2.37	2.49	2.60	2.74	2.88	3.02	*3.14*	*3.26*	Div'ds Decl'd per sh C■	3.70
2.36	2.56	3.02	4.83	4.00	3.96	6.68	6.42	9.08	9.86	16.15	12.37	12.09	10.52	12.45	14.93	*13.15*	*13.25*	Cap'l Spending per sh	12.75
23.32	24.02	25.56	26.67	32.00	34.93	36.30	38.73	41.26	44.51	45.14	44.19	46.74	49.08	50.29	51.83	*53.05*	*54.55*	Book Value per sh D	57.80
22.17	22.29	22.43	22.55	32.70	43.18	43.36	45.65	48.26	50.67	50.97	51.60	51.70	52.50	53.20	57.70	*60.00*	*62.00*	Common Shs Outst'g E	72.00
13.4	13.7	13.0	14.5	21.3	19.8	16.5	19.6	19.8	16.7	22.8	51.1	13.6	17.5	17.3	14.6	*Bold figures are*		Avg Ann'l P/E Ratio	17.5
.89	.87	.82	.92	1.20	1.04	.83	1.03	1.00	.90	1.21	2.62	.73	1.01	1.00	.76	*Value Line*		Relative P/E Ratio	.95
3.9%	4.7%	4.3%	4.1%	4.0%	3.8%	3.5%	3.1%	3.1%	3.1%	3.0%	3.4%	3.8%	4.0%	4.3%	4.9%	*estimates*		Avg Ann'l Div'd Yield	4.0%

CAPITAL STRUCTURE as of 12/31/24
Total Debt $4898.2 mill. Due in 5 Yrs $1766.0 mill.
LT Debt $3697.7 mill. LT Interest $185.0 mill.
(Total interest coverage: 2.5x)

Leases, Uncapitalized Annual rentals $9.8 mill.
Pension Assets-9/24 $704.5 mill.
Oblig. $887.3 mill.
Pfd Stock $242.0 mill. Pfd Div'd $14.8 mill.
Common Stock 58,345,839 shs.
as of 1/31/25

MARKET CAP: $4.2 billion (Mid Cap)

	1976.4	1537.3	1740.7	1965.0	1952.4	1855.4	2235.5	2198.5	2666.3	2593.0	*2505*	*2600*	Revenues ($mill) A	3450
	136.9	144.2	161.6	214.2	184.6	88.6	271.7	220.8	217.5	250.9	*235*	*255*	Net Profit ($mill)	380
	31.2%	32.5%	32.4%	--	15.7%	12.3%	20.1%	21.1%	15.1%	19.0%	*19.0%*	*19.5%*	Income Tax Rate	23.5%
	6.9%	9.4%	9.3%	10.9%	9.5%	4.8%	12.2%	10.0%	8.2%	9.7%	*9.4%*	*9.8%*	Net Profit Margin	11.0%
	53.0%	50.9%	50.0%	45.7%	45.0%	49.0%	52.5%	51.2%	54.9%	53.4%	*53.0%*	*53.0%*	Long-Term Debt Ratio	51.0%
	47.0%	49.1%	50.0%	54.3%	49.7%	46.1%	43.2%	44.6%	41.3%	43.1%	*43.0%*	*43.0%*	Common Equity Ratio	45.0%
	3345.1	3601.9	3986.3	4155.5	4625.6	4946.0	5597.3	5777.0	6471.3	6937.1	*7400*	*7865*	Total Capital ($mill)	9250
	2941.2	3300.9	3665.2	3970.5	4352.0	4680.1	5055.7	5370.4	5778.9	6243.3	*6550*	*6860*	Net Plant ($mill)	8000
	5.1%	4.9%	5.0%	6.3%	5.1%	2.9%	5.8%	4.9%	4.8%	5.1%	*5.0%*	*5.0%*	Return on Total Cap'l	5.5%
	8.7%	8.2%	8.1%	9.5%	7.3%	3.5%	10.2%	7.8%	7.5%	7.8%	*7.5%*	*7.5%*	Return on Shr. Equity	9.0%
	8.7%	8.2%	8.1%	9.5%	7.9%	3.2%	10.6%	8.0%	7.6%	7.9%	*7.5%*	*7.5%*	Return on Com Equity	9.0%
	3.7%	3.3%	3.3%	4.7%	2.7%	NMF	5.1%	2.5%	1.9%	2.3%	*1.0%*	*1.0%*	Retained to Com Eq	2.5%
	58%	59%	60%	51%	66%	NMF	54%	71%	76%	72%	*86%*	*85%*	All Div'ds to Net Prof	74%

BUSINESS: Spire Inc., formerly known as the Laclede Group, Inc., is a holding company for natural gas utilities, which distributes natural gas across Missouri, including the cities of St. Louis and Kansas City, Alabama, and Mississippi. Has roughly 1.7 million customers. Acquired Missouri Gas 9/13, Alabama Gas Co 9/14. Utility therms sold and transported in fiscal 2024: 3.1 bill. Revenue mix for regu- lated operations: residential, 66%; commercial and industrial, 24%; transportation, 5%; other, 5%. Officers and directors own 2.3% of common shares; BlackRock, 11.9%; The Vanguard Group, 9.6% (12/24 proxy). Chairman: Edward Glotzbach; CEO: Steve Lindsey. Inc.: Missouri. Address: 700 Market Street, St. Louis, Missouri 63101. Tel.: 314-342-0500. Internet: www.spireenergy.com.

CURRENT POSITION ($MILL.)

	2023	2024	12/31/24
Cash Assets	5.6	4.5	11.5
Other	1071.3	766.8	976.5
Current Assets	1076.9	771.3	988.0
Accts Payable	253.1	237.2	292.3
Debt Due	1112.1	989.0	1200.5
Other	390.2	477.7	498.4
Current Liab.	1755.4	1703.9	1991.2
Fix. Chg. Cov.	294%	305%	310%

ANNUAL RATES

of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '22-'24 to '28-'30
Revenues	1.5%	4.0%	1.0%
"Cash Flow"	8.5%	4.0%	4.0%
Earnings	5.5%	1.0%	4.5%
Dividends	5.5%	5.0%	4.0%
Book Value	5.0%	3.0%	2.5%

QUARTERLY REVENUES ($ mill.) A

Fiscal Year Ends	Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2022	555.4	880.9	448.0	314.2	2198.5
2023	814.0	1123.4	418.5	310.4	2666.3
2024	756.6	1128.5	414.1	293.8	2593.0
2025	669.1	*1120.9*	*415*	*300*	*2505*
2026	*715*	*1135*	*430*	*320*	*2600*

EARNINGS PER SHARE A B F

Fiscal Year Ends	Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2022	1.01	3.27	d.10	d.20	3.95
2023	1.66	3.33	d.48	d.66	3.85
2024	1.52	3.58	d.28	d.51	4.19
2025	1.34	*3.40*	*d.30*	*d.49*	*3.95*
2026	*1.43*	*3.47*	*d.27*	*d.48*	*4.15*

QUARTERLY DIVIDENDS PAID C ■

Cal- endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	.65	.65	.65	.65	2.60
2022	.685	.685	.685	.685	2.74
2023	.72	.72	.72	.72	2.88
2024	.755	.755	.755	.755	3.02
2025	.785				

Spire got off to a rather uninspiring start in fiscal 2025 (ends September 30th). First-quarter earnings per share slipped 11.8%, to $1.34, versus the prior year's $1.52 result. That stemmed partially from diminished profits in the Gas Marketing division, given less favorable market conditions coupled with increased transportation and storage fees. There was a greater number of diluted shares outstanding, too. But the Gas Utility unit and Midstream segment had better showings during the period. Still, for the full year, we think the company's bottom line will retreat about 6%, to $3.95 per share, relative to fiscal 2024's $4.19 figure. Concerning fiscal 2026, however, earnings stand to recover around 5%, to $4.15 a share. That is based, to a certain degree, on our assumption that the business climate brightens. Improvements in operating efficiencies should lend further support.

Capital expenditures for this year are anticipated to be $790 million. (That's 8.3% lower than the fiscal 2024 level of $861.3 million.) The bulk of the funds are being deployed to infrastructure upgrades, the installation of advanced meters, plus new business development initiatives at the utilities. Management adds that it expects total capital spending from fiscal 2025 through fiscal 2034 to be $7.4 billion. If the balance sheet remains in sound condition, we believe that Spire will have minimal difficulty accomplishing these objectives.

The quarterly common stock dividend was raised about 4%, to $0.785 per share. That was made possible, no doubt, by the company's solid capital position. What's more, we anticipate additional steady hikes in the distribution out to 2028-2030. The payout ratio over that span should be manageable, in the neighborhood of 74%. It is worth mentioning that the dividend yield looks attractive when compared to the average of all Natural Gas Utility equities within the *Value Line* universe.

Besides the generous income component, there's not much else here, right now. At the recent quotation, 3- to 5-year capital appreciation possibilities are limited. Meanwhile, SR shares are ranked just 3 (Average) for Timeliness.
Frederick L. Harris, III February 21, 2025

(A) Fiscal year ends Sept. 30th.
(B) Based on diluted shares outstanding. Next earnings report due late April.
(C) Dividends paid in early January, April, July, and October. ■ Dividend reinvestment plan available.
(D) Includes deferred charges. In '24: $1,171.6 mill.; $20.31/sh.
(E) In millions.
(F) Quarterly earnings may not sum due to rounding or change in shares outstanding.

Company's Financial Strength	B++
Stock's Price Stability	90
Price Growth Persistence	25
Earnings Predictability	50

ALLIANT ENERGY NDQ-LNT

| RECENT PRICE | 63.63 | P/E RATIO | 19.9 | (Trailing: 22.6 / Median: 21.0) | RELATIVE P/E RATIO | 1.04 | DIV'D YLD | 3.0% | VALUE LINE |

TIMELINESS	3	Raised 5/3/24
SAFETY	1	Raised 9/6/24
TECHNICAL	3	Lowered 11/29/24
BETA	.90	(1.00 = Market)

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$46-$73	$60 (-5%)

2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	75	(+20%)	7%
Low	65	(Nil)	4%

Institutional Decisions

	4Q2023	1Q2024	2Q2024
to Buy	312	290	314
to Sell	279	311	265
Hld's(000)	209105	208018	205430

Percent shares traded: 24 / 16 / 8

High/Low annual price range:
2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
27.1	34.9	35.4	41.0	45.6	46.6	55.4	60.3	62.3	65.4	56.3	64.2						
21.9	25.0	27.1	30.4	36.6	36.8	40.8	37.7	46.0	47.2	45.2	46.8						

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. 2-for-1.

Target Price Range 2027 2028 2029

% TOT. RETURN 10/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	28.2	28.7
3 yr.	17.8	10.7
5 yr.	31.5	73.6

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2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025		27-29
16.67	15.51	15.40	16.51	13.94	14.77	15.10	14.34	14.58	14.62	14.97	14.89	13.67	14.65	16.74	15.72	*16.15*	*17.30*	Revenues per sh	18.35
2.28	2.10	2.60	2.75	2.95	3.34	3.49	3.45	3.43	3.97	4.32	4.59	4.92	5.25	5.40	5.38	*5.55*	*5.85*	"Cash Flow" per sh	6.50
1.27	.95	1.38	1.38	1.53	1.65	1.74	1.69	1.65	1.99	2.19	2.33	2.47	2.63	2.73	2.78	*2.95*	*3.25*	Earnings per sh A	3.90
.70	.75	.79	.85	.90	.94	1.02	1.10	1.18	1.26	1.34	1.42	1.52	1.61	1.71	1.81	*1.92*	*2.04*	Div'd Decl'd per sh B■†	2.43
3.98	5.43	3.91	3.03	5.22	3.32	3.78	4.25	5.26	6.34	6.92	6.69	5.47	4.67	5.91	7.24	*5.80*	*5.60*	Cap'l Spending per sh	5.40
12.78	12.54	13.05	13.57	14.12	14.79	15.54	16.41	16.96	18.08	19.43	21.24	22.76	23.91	24.99	26.46	*27.65*	*28.85*	Book Value per sh C	31.90
220.90	221.31	221.79	222.04	221.97	221.89	221.87	226.92	227.67	231.35	236.06	245.02	249.87	250.47	251.14	256.10	*256.70*	*256.70*	Common Shs Outst'g D	257.00
13.4	13.9	12.5	14.5	14.5	15.3	16.6	18.1	22.3	20.6	19.1	21.2	21.2	21.2	21.4	18.8	Bold figures are		Avg Ann'l P/E Ratio	18.0
.81	.93	.80	.91	.92	.86	.87	.91	1.17	1.04	1.03	1.13	1.09	1.15	1.24	1.05	Value Line		Relative P/E Ratio	1.00
4.1%	5.7%	4.6%	4.3%	4.1%	3.7%	3.5%	3.6%	3.2%	3.1%	3.2%	2.9%	2.9%	2.9%	2.9%	3.5%	estimates		Avg Ann'l Div'd Yield	3.7%

CAPITAL STRUCTURE as of 9/30/24

Total Debt $10679 mill. Due in 5 Yrs $2984 mill.
LT Debt $9245 mill. LT Interest $370 mill.
(LT interest earned: 2.8x)

Leases, Uncapitalized Annual rentals $3 mill.

Pension Assets-12/23 $732 mill.
Oblig $876 mill.

Pfd Stock None

Common Stock 256,599,202 shs.

MARKET CAP: $16.3 billion (Large Cap)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025		27-29
Revenues ($mill)	3350.3	3253.6	3320.0	3382.2	3534.5	3647.7	3416.0	3669.0	4205.0	4027.0	*4150*	*4440*		4720
Net Profit ($mill)	395.7	390.9	384.0	466.1	522.3	567.4	624.0	674.0	686.0	703.0	*755*	*835*		975
Income Tax Rate	10.1%	15.3%	13.4%	12.5%	8.4%	10.8%	- -	- -	3.1%	.6%	*2.0%*	*2.0%*		2.0%
AFUDC % to Net Profit	8.8%	9.4%	16.3%	10.7%	14.5%	16.3%	8.8%	3.7%	8.7%	14.2%	*6.0%*	*6.0%*		4.0%
Long-Term Debt Ratio	49.7%	47.3%	51.5%	47.8%	52.3%	50.6%	53.5%	52.9%	55.0%	54.8%	*56.5%*	*55.0%*		52.0%
Common Equity Ratio	47.5%	50.0%	46.1%	49.8%	45.7%	47.6%	44.9%	47.1%	45.0%	45.2%	*43.5%*	*45.0%*		48.0%
Total Capital ($mill)	7257.2	7446.3	8377.6	8392.8	10032	10938	12657	12725	13944	15002	*16220*	*16530*		17070
Net Plant ($mill)	6442.0	8970.2	9809.9	10798	12462	13527	14336	14987	16247	17157	*18300*	*18600*		19180
Return on Total Cap'l	6.5%	6.3%	5.6%	6.7%	6.3%	6.3%	5.9%	6.3%	6.1%	6.0%	*6.0%*	*6.5%*		7.0%
Return on Shr. Equity	10.8%	10.0%	9.5%	10.6%	10.9%	10.5%	10.6%	11.3%	10.9%	10.4%	*11.0%*	*11.5%*		12.0%
Return on Com Equity E	11.2%	10.2%	9.7%	10.9%	11.2%	10.7%	10.8%	11.0%	10.9%	10.4%	*11.0%*	*11.5%*		12.0%
Retained to Com Eq	4.6%	3.6%	2.8%	4.0%	4.4%	4.2%	4.2%	4.3%	4.1%	3.6%	*4.0%*	*4.0%*		4.5%
All Div'ds to Net Prof	60%	66%	72%	64%	62%	61%	62%	62%	62%	65%	*63%*	*63%*		62%

ELECTRIC OPERATING STATISTICS

	2021	2022	2023
% Change Retail Sales (KWH)	+3.7	-.7	
Avg. Indust. Use (MWH)	11696	11494	11435
Avg. Indust. Revs. per KWH (¢)	7.64	8.39	8.47
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	5486	5629	5856
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+.8	+.7	+.7
Fixed Charge Cov. (%)	259	NA	NA

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	.5%	1.5%	2.5%
"Cash Flow"	6.0%	6.5%	2.0%
Earnings	6.0%	7.0%	6.0%
Dividends	6.5%	6.5%	6.0%
Book Value	6.0%	6.5%	4.0%

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	901	817	1024	927	3669
2022	1068	943	1135	1059	4205
2023	1077	912	1077	961	4027
2024	1031	894	1081	1144	4150
2025	1065	1005	1185	1185	4440

EARNINGS PER SHARE A

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	.68	.57	1.02	.35	2.63
2022	.77	.63	.90	.43	2.73
2023	.65	.64	1.02	.47	2.78
2024	.62	.57	1.15	.61	2.95
2025	.74	.69	1.14	.68	3.25

QUARTERLY DIVIDENDS PAID B■†

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.38	.38	.38	.38	1.52
2021	.4025	.4025	.4025	.4025	1.61
2022	.4275	.4275	.4275	.4275	1.71
2023	.4525	.4525	.4525	.4525	1.81
2024	.48	.48	.48	.48	

BUSINESS: Alliant Energy Corporation is the parent company of Interstate Power and Light Company (IPL) and Wisconsin Power and Light Company (WPL). Together, the utility subsidiaries serve approximately one million electric and 425,000 natural gas customers in Wisconsin and Iowa. Electric revenue: residential, 36%; commercial, 25%; industrial, 29%; wholesale, 8%; other, 2%. Generat-ing sources: coal, 32%; gas, 32%; wind, 16%; other, 1%; purchased, 19%. Fuel costs: 25% of revenues. '23 reported depreciation rates: 2.9%-6.1%. Has 3,300 employees. Chairman, President & CEO: John O. Larsen. Incorporated: Wisconsin. Address: 4902 N. Biltmore Lane, Madison, WI 53718-2148. Telephone: 608-458-3311. Internet: www.alliantenergy.com.

Alliant Energy could very well enjoy a strong boost in power demand, beginning in 2028. To that point, management recently announced that the electric utility was preparing to bring two "prestigious" data-center (DC) customers on board, both of which would operate out of Alliant's Big Cedar Industrial Center in Cedar Rapids, Iowa. As we understand it, the first phase of the Big Cedar DC opportunity is likely to increase peak demand by 1.1 gigawatts and go live sometime in late 2028. What's more, assuming Alliant continues to have success attracting commercial customers to the Hawkeye State, a second phase could be launched, potentially by decade's end.

Alliant remains focused on reducing its reliance on fossil fuels. To wit, its Interstate Power & Light subsidiary continues to target 400 megawatts of solar power generation by the end of 2024. Meantime, Wisconsin Power & Light was recently expected to complete the last of several projects that will increase the utility's overall solar-power capacity in the Badger State to 1.1 gigawatts. Importantly, these solar projects have zero fuel costs, thus reducing Alliant's susceptibility to swings in natural-gas prices and the like. Its investments in "green" power also yield significant tax credits that can be sold to regional manufacturers and other third parties looking to maintain compliance with restrictions on harmful carbon emissions. In 2025 alone, Alliant could realize as much as $400 million from the sale of tax credits.

The power company is likely to get a bit leaner. Indeed, in the December quarter, Alliant initiated a voluntary employee separation program that may very well result in a 5% reduction in its overall workforce. More than 160 workers could be impacted.

Alliant Energy shares remain neutrally ranked for relative year-ahead price performance. And with the stock up 23% in price year to date, long-term appreciation potential no longer stands out. Still, the utility company boasts an attractive, well-covered dividend that could hold some appeal for income-oriented accounts (current yield: 3.0% versus 1.9% for the *Value Line* universe as a whole).

Nils C. Van Liew   December 6, 2024

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

Company's Financial Strength	A+
Stock's Price Stability	90
Price Growth Persistence	55
Earnings Predictability	100

AMEREN NYSE-AEE

RECENT PRICE	82.57	P/E RATIO	17.1	(Trailing: 18.7 / Median: 20.0)	RELATIVE P/E RATIO	0.93	DIV'D YLD	3.2%	VALUE LINE

High:	37.3	48.1	46.8	54.1	64.9	70.9	80.9	87.7	90.8	99.2	91.2	84.4
Low:	30.6	35.2	37.3	41.5	51.4	51.9	63.1	58.7	69.8	73.3	69.7	67.0

TIMELINESS 4 Lowered 12/29/23
SAFETY 1 Raised 9/10/21
TECHNICAL 5 Lowered 8/2/24
BETA .90 (1.00 = Market)

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

Target Price Range 2027 2028 2029

18-Month Target Price Range
Low-High   Midpoint (% to Mid)
$61-$95 $78 (-5%)

2027-29 PROJECTIONS
	Price	Gain	Ann'l Total Return
High	130	(+55%)	14%
Low	110	(+35%)	9%

Institutional Decisions
	3Q2023	4Q2023	1Q2024
to Buy	280	283	274
to Sell	314	321	321
Hld's(000)	210352	215268	218776

Percent shares traded 30 / 20 / 10

% TOT. RETURN 7/24
	THIS STOCK	VL ARITH.* INDEX
1 yr.	-4.2	9.9
3 yr.	3.2	12.6
5 yr.	19.8	72.0

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
36.92	29.87	31.77	31.04	28.14	24.06	24.95	25.13	25.04	25.46	25.73	24.00	22.87	24.81	30.37	28.10	28.45	29.80	Revenues per sh	33.35
6.44	6.06	6.33	5.87	5.87	5.25	5.77	6.08	6.59	6.80	7.64	7.83	8.08	8.89	9.59	9.99	10.50	11.15	"Cash Flow" per sh	12.35
2.88	2.78	2.77	2.47	2.41	2.10	2.40	2.38	2.68	2.77	3.32	3.35	3.50	3.84	4.14	4.37	4.60	4.90	Earnings per sh A	6.00
2.54	1.54	1.54	1.56	1.60	1.60	1.61	1.66	1.72	1.78	1.85	1.92	2.00	2.20	2.36	2.52	2.68	2.86	Div'd Decl'd per sh B ■	3.30
9.75	7.51	4.66	4.50	5.49	5.87	7.66	8.12	8.78	9.05	9.56	9.92	13.02	13.67	12.79	12.87	12.55	12.80	Cap'l Spending per sh	13.00
32.80	33.08	32.15	32.64	27.27	26.97	27.67	28.63	29.27	29.61	31.21	32.73	35.29	37.64	40.11	40.26	42.90	45.95	Book Value per sh C	52.65
212.30	237.40	240.40	242.60	242.63	242.63	242.63	242.63	242.63	242.63	244.50	246.20	253.30	257.70	262.00	267.00	267.00	272.00	Common Shs Outst'g D	285.00
14.2	9.3	9.7	11.9	13.4	16.5	16.7	17.5	18.3	20.6	18.3	22.1	22.2	21.4	21.5	18.8	Bold figures are		Avg Ann'l P/E Ratio	20.0
.85	.62	.62	.75	.85	.93	.88	.88	.96	1.04	.99	1.18	1.14	1.16	1.24	1.07	Value Line		Relative P/E Ratio	1.10
6.2%	6.0%	5.8%	5.3%	5.0%	4.6%	4.0%	4.0%	3.5%	3.1%	3.0%	2.6%	2.6%	2.7%	2.7%	3.3%	estimates		Avg Ann'l Div'd Yield	3.0%

CAPITAL STRUCTURE as of 9/30/24
Total Debt $16722 mill. **Due in 5 Yrs** $2789 mill.
LT Debt $16422 mill. **LT Interest** $450 mill.
(LT interest earned: 3.8x)
Pension Assets-12/23 $5745 mill.
Oblig $5457 mill.
Pfd Stock $129 mill. **Pfd Div'd** $5 mill.
807,595 sh. $3.50 to $5.50 cum. (no par), $100 stated val., redeem. $102.176-$110/sh.; 487,508 sh. 4.00% to 5.16%, $100 par, redeem. $100-$104.30/sh.
Common Stock 266,927,767 shs.
as of 10/31/24
MARKET CAP: $22.0 billion (Large Cap)

6053.0	6098.0	6076.0	6177.0	6291.0	5910.0	5794.0	6394.0	7957.0	7500.0	7600	8100	Revenues ($mill)	9500
593.0	585.0	659.0	683.0	821.0	834.0	877.0	995.0	1074.0	1152.0	1230	1335	Net Profit ($mill)	1710
38.9%	38.3%	36.7%	38.2%	22.4%	17.9%	15.0%	13.6%	14.0%	12.0%	12.0%	12.0%	Income Tax Rate	12.0%
5.7%	5.1%	4.1%	5.6%	6.9%	5.8%	5.5%	6.0%	5.0%	6.0%	5.0%	5.0%	AFUDC % to Net Profit	4.0%
47.2%	49.3%	47.7%	49.2%	50.3%	52.1%	55.0%	56.1%	56.6%	55.7%	53.5%	52.5%	Long-Term Debt Ratio	51.0%
51.7%	49.7%	51.3%	49.8%	48.8%	47.1%	44.3%	43.3%	43.4%	43.8%	46.0%	47.0%	Common Equity Ratio	48.5%
12975	13968	13840	14420	15632	17116	20158	22391	24193	24847	25750	26450	Total Capital ($mill)	29500
17424	18799	20113	21466	22810	24376	26807	29261	31262	33776	35000	36300	Net Plant ($mill)	38400
5.8%	5.3%	6.0%	6.0%	6.4%	6.0%	5.3%	5.3%	5.4%	5.5%	5.0%	5.0%	Return on Total Cap'l	6.0%
8.7%	8.3%	9.1%	9.3%	10.6%	10.2%	9.7%	10.1%	10.2%	11.0%	11.0%	11.0%	Return on Shr. Equity	10.0%
8.7%	8.3%	9.2%	9.4%	10.7%	10.3%	9.7%	10.2%	10.2%	11.0%	11.0%	11.0%	Return on Com Equity E	10.0%
2.9%	2.5%	3.3%	3.4%	4.8%	4.4%	4.2%	4.4%	4.4%	5.0%	5.0%	5.0%	Retained to Com Eq	4.0%
67%	70%	64%	64%	56%	57%	57%	57%	57%	57%	56%	56%	All Div'ds to Net Prof	60%

ELECTRIC OPERATING STATISTICS
	2021	2022	2023
% Change Retail Sales (KWH)	-5.6	+2.1	+3.2
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	NA	NA	NA

Fixed Charge Cov. (%)	291	325	334

ANNUAL RATES
of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	-1.5%	.5%	4.0%
"Cash Flow"	4.0%	6.5%	5.5%
Earnings	4.0%	8.0%	6.5%
Dividends	3.5%	5.0%	6.5%
Book Value	2.0%	5.5%	6.5%

QUARTERLY REVENUES ($ mill.)
Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	1566	1472	1811	1545	6394
2022	1879	1726	2306	2046	7957
2023	2062	1760	2060	1618	7500
2024	1816	1693	2173	1918	7600
2025	1950	1800	2250	2100	8100

EARNINGS PER SHARE A
Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	.91	.80	1.65	.48	3.84
2022	.97	.80	1.74	.63	4.14
2023	1.00	.90	1.87	.60	4.37
2024	.98	.97	1.87	.78	4.60
2025	1.10	1.00	1.95	.85	4.90

QUARTERLY DIVIDENDS PAID B ■
Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.495	.495	.495	.515	2.00
2021	.55	.55	.55	.55	2.20
2022	.59	.59	.59	.59	2.36
2023	.63	.63	.63	.63	2.52
2024	.67	.67	.67	.67	

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

Ameren is poised to report solid results in 2024. The utility is benefiting from elevated power demand, strategic infrastructure investments, and disciplined cost management. Our profit estimate remains at $4.60 per share, which is right near the midpoint of management's updated target range of $4.55-$4.69. Ameren looks to close out the year with significant year-over-year operations and maintenance cost reductions from several savings initiatives. Meanwhile, these shares have jumped nicely in value as of late. Indeed, the stock is up nearly 15% over the past three months and has risen more than 30% in 2024, thanks to solid financial results and a strong outlook in the coming years.

We look for sharper top- and bottom-line growth next year. The utility is well positioned to benefit from clean energy advancements and its three solar facilities, as well as additional rate relief from its transmission and Illinois Electric operations over that interim. Indeed, Ameren recently received approval to build an 800 megawatt (mw) natural gas energy center, which is expected to be op-erational in 2027. The utility also acquired the Huck Finn renewable energy center, a 200 mw solar facility in Missouri. Ameren is also well positioned over that interim to benefit from increased demand for power from data centers and artificial intelligence innovations. Accordingly, we look for 2025 earnings of $4.90 per share, indicating an increase of 7% from our 2024 estimate. We also raised our top-line target by $100 million to reflect clean energy and regulatory advancements.

We think that the quarterly disbursement will be boosted by $0.04 a share (6%) in 2025. Ameren's goals for the dividend include hikes in line with profit growth and a payout ratio of 55%-70%.

These shares are suitable for conservative, income-oriented investors. Both short- and long-term capital gains prospects are below average at this juncture. But, the 1 (Highest) Safety rank and top (100) Earnings Predictability score should appeal to risk-averse accounts. The stock's dividend is perhaps its most notable feature, though it is about average by utility standards.
Zachary J. Hodgkinson   December 6, 2024

(A) Diluted EPS. Excl. nonrec. gain (losses): '10, ($2.19); '11, (32¢); '12, ($6.42); '17, (63¢); gain (loss) from discontinued ops.: '13, (92¢); '15, 21¢. Next earnings report due early Feb. (B) Div'ds paid late Mar., June, Sept., & Dec. ■ Div'd reinvest. plan avail. (C) Incl. intang. In '23: $6.60/sh. (D) In mill. (E) Rate base: Orig. cost depr. Rate allowed on com. eq. in MO in '23: elec. & gas, none specified; in IL: electric, varies; in '23: gas, 9.68%; earned on avg. com. eq., '23: 10.5%.

Company's Financial Strength	A+
Stock's Price Stability	95
Price Growth Persistence	85
Earnings Predictability	100

AMERICAN ELEC. PWR. NDQ-AEP

RECENT PRICE	99.02	P/E RATIO	16.8 (Trailing: 17.9 / Median: 18.0)	RELATIVE P/E RATIO	0.92	DIV'D YLD	3.6%	VALUE LINE

TIMELINESS	4	Lowered 6/14/24
SAFETY	1	Raised 3/17/17
TECHNICAL	3	Lowered 8/2/24
BETA	.85	(1.00 = Market)

High/Low prices by year:

| High: | 51.6 | 63.2 | 65.4 | 71.3 | 78.1 | 81.1 | 96.2 | 105.0 | 91.5 | 105.6 | 98.3 | 104.4 |
| Low: | 41.8 | 45.8 | 52.3 | 56.8 | 61.8 | 62.7 | 72.3 | 65.1 | 74.8 | 80.3 | 69.4 | 75.2 |

LEGENDS
- 29.40 x Dividends p sh
- · · · · Relative Price Strength
- Options: Yes
- Shaded area indicates recession

Target Price Range 2027 2028 2029

18-Month Target Price Range
Low-High   Midpoint (% to Mid)
$71-$114 $93 (-5%)

2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	140	(+40%)	12%
Low	115	(+15%)	7%

Institutional Decisions

	3Q2023	4Q2023	1Q2024
to Buy	599	628	661
to Sell	557	609	572
Hld's(000)	391405	398265	402930

Percent shares traded: 24 / 16 / 8

% TOT. RETURN 7/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	20.8	9.9
3 yr.	93.5	12.6
5 yr.	19.9	72.0

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
35.56	28.22	30.01	31.27	30.77	31.48	34.78	33.51	33.31	31.35	32.84	31.49	30.04	33.30	38.20	36.08	37.70	40.20	Revenues per sh	41.80
6.84	6.32	6.29	6.83	6.92	7.02	7.57	7.98	8.47	7.95	8.77	9.35	10.28	10.98	10.72	10.92	11.75	12.20	"Cash Flow" per sh	15.05
2.99	2.97	2.60	3.13	2.98	3.18	3.34	3.59	4.23	3.62	3.90	4.08	4.42	4.96	5.09	5.24	5.65	5.85	Earnings per sh A	7.05
1.64	1.64	1.71	1.85	1.88	1.95	2.03	2.15	2.27	2.39	2.53	2.71	2.84	3.00	3.17	3.37	3.60	3.81	Div'd Decl'd per sh B ■ †	4.16
9.83	6.19	5.07	5.74	6.45	7.75	8.68	9.37	9.98	11.79	12.89	12.43	12.72	11.43	13.18	13.89	14.15	14.10	Cap'l Spending per sh	14.00
26.33	27.49	28.33	30.33	31.37	32.98	34.37	36.44	35.38	37.17	38.58	39.73	41.38	44.49	46.60	48.46	55.05	58.90	Book Value per sh C	62.55
406.07	478.05	480.81	483.42	485.67	487.78	489.40	491.05	491.71	492.01	493.25	494.17	496.60	504.21	513.87	526.18	533.00	535.00	Common Shs Outst'g D	550.00
13.1	10.0	13.4	11.9	13.8	14.5	15.9	15.8	15.2	19.3	18.0	21.4	19.6	17.1	21.1	16.2	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	18.0
.79	.67	.85	.75	.88	.81	.84	.80	.80	.97	.97	1.14	1.01	.92	1.23	.93			Relative P/E Ratio	1.00
4.2%	5.5%	4.9%	5.0%	4.6%	4.2%	3.8%	3.8%	3.5%	3.4%	3.6%	3.1%	3.3%	3.5%	3.3%	4.5%			Avg Ann'l Div'd Yield	3.3%

CAPITAL STRUCTURE as of 9/30/24
Total Debt $41974 mill. Due in 5 Yrs $12886 mill.
LT Debt $39148 mill. LT Interest $1400 mill.

Leases, Uncapitalized Annual rentals $119.6 mill.

Pfd Stock None

Common Stock 532,565,335 shs.

MARKET CAP: $52.7 billion (Large Cap)

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025		27-29
						17020	16453	16380	15425	16196	15561	14919	16792	19640	18982	20100	21500	Revenues ($mill)	23000
						1634.0	1763.4	2073.6	1783.2	1923.8	2019.0	2200.1	2448.1	2307.2	2208.1	3010	3130	Net Profit ($mill)	3880
						37.8%	35.1%	26.8%	33.7%	5.8%	.7%	1.9%	4.6%	NMF	NMF	21.0%	21.0%	Income Tax Rate	21.0%
						9.0%	11.0%	8.0%	8.0%	10.7%	12.7%	9.7%	7.8%	7.0%	7.0%	7.0%	6.5%	AFUDC % to Net Profit	5.0%
						49.0%	49.8%	50.0%	51.5%	53.2%	56.1%	58.5%	58.3%	58.5%	58.2%	58.0%	58.0%	Long-Term Debt Ratio	57.5%
						51.0%	50.2%	50.0%	48.5%	46.8%	43.9%	41.5%	41.7%	42.0%	42.0%	42.0%	42.0%	Common Equity Ratio	42.5%
						33001	35633	34775	37707	40677	44759	49537	53734	57520	62837	68900	70730	Total Capital ($mill)	75900
						44117	46133	45639	50262	55099	60138	63902	66001	71283	76693	78000	81250	Net Plant ($mill)	87300
						6.3%	6.1%	7.2%	5.9%	5.9%	5.6%	5.6%	5.6%	4.0%	3.6%	4.5%	4.5%	Return on Total Cap'l	5.0%
						9.7%	9.9%	11.9%	9.8%	10.1%	10.3%	10.7%	11.1%	9.7%	8.7%	10.0%	10.0%	Return on Shr. Equity	11.0%
						9.7%	9.9%	11.9%	9.8%	10.1%	10.3%	10.7%	11.1%	9.7%	8.7%	10.0%	10.0%	Return on Com Equity	11.0%
						3.8%	3.9%	5.5%	3.2%	3.5%	3.4%	3.8%	4.3%	2.9%	2.4%	4.0%	4.0%	Retained to Com Eq	4.5%
						61%	60%	54%	67%	65%	67%	65%	61%	70%	63%	63%	63%	All Div'ds to Net Prof	61%

ELECTRIC OPERATING STATISTICS

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

Fixed Charge Cov. (%)	243	272	285

ANNUAL RATES

of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
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%

QUARTERLY REVENUES ($ mill.) E

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	4281	3826	4623	4061	16792
2022	4593	4640	5526	4881	19640
2023	4690	4373	5342	4577	18982
2024	5026	4579	5420	5075	20100
2025	5250	4850	5800	5600	21500

EARNINGS PER SHARE A

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	1.15	1.15	1.59	1.07	4.96
2022	1.22	1.20	1.62	1.05	5.09
2023	1.11	1.13	1.77	1.23	5.24
2024	1.27	1.25	1.85	1.28	5.65
2025	1.30	1.40	1.85	1.30	5.85

QUARTERLY DIVIDENDS PAID B ■ †

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.70	.70	.70	.74	2.84
2021	.74	.74	.74	.78	3.00
2022	.78	.78	.78	.83	3.17
2023	.83	.83	.83	.88	3.37
2024	.88	.88	.88	.93	

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

American Electric Power is on track to post a strong profit increase this year. Increased investments in its transmission business, elevated volume and power demand, along with a number of pending rate cases, should continue to benefit performance through the end of 2024. Third-quarter earnings of $1.85 per share outperformed our and Wall Street's call of $1.80 due to the aforementioned tailwinds. And, management narrowed its 2024 target range to $5.58-$5.68 a share, right near our unchanged midpoint.

Earnings growth will likely slow down in 2025, though. Despite anticipated growth in the regulated utilities and a significant boost in power demand, lower contributions from the generation and marketing segments due to reduced activities and lower retail and wholesale margins should negatively impact results. Accordingly, we have lowered our 2025 earnings estimate by $0.15 a share, which is at the midpoint of management's updated target range of $5.75-$5.95 a share. We have also slightly pared our 2027-2029 projections by $0.05 a share, and now look for profits of $7.05 a share

over that interim. Meanwhile, AEP unveiled a new long-term growth rate of 6%-8% based off its 2025 profit outlook range.

The board of directors raised the dividend, effective with the December payment. This is the typical timing for increases for AEP. The hike was $0.05 a share (6%), in line with the company's 6%-7% long-term earnings growth range and within AEP's target for a payout ratio of 60%-70%.

This issue is best suited for risk-averse investors seeking income. These shares are ranked 4 (Below Average) for Timeliness, making them a weak selection for the year ahead. What's more, intermediate- and long-term capital appreciation potential is nothing to write home about. Indeed, the recent quotation is already above the midpoint of our 18-month Target Price Range. And, over the 2027-2029 period, return prospects are also limited as we look for the stock to trade between $115-$140 over that interim. But, the dividend yield of 3.6% stands above the industrywide average and remains AEP's most notable feature.

Zachary J. Hodgkinson   December 6, 2024

(A) Diluted EPS. Excl. nonrec. gains (losses): '08, 40¢; '10, (7¢); '11, 89¢; '12, (38¢); '13, (14¢); '16, ($2.99); '17, 26¢; '19, (20¢); gains (loss) from disc. ops.: '08, 3¢; '15, 58¢; '16, (1¢) '22, (58¢); '23, (34¢). Next earnings report due late February. (B) Div'ds paid early Mar., June, Sept., & Dec. ■ Div'd reinvestment plan avail. † Shareholder invest. plan avail. (C) Incl. intang. In '23: $52.5 million (D) In mill. (E) Rev. may not sum due to rounding.

Company's Financial Strength	A
Stock's Price Stability	95
Price Growth Persistence	70
Earnings Predictability	90

DUKE ENERGY NYSE-DUK

RECENT PRICE	112.62	
P/E RATIO	17.8 (Trailing: 19.6 / Median: 18.0)	
RELATIVE P/E RATIO	0.97	
DIV'D YLD	3.7%	

VALUE LINE

TIMELINESS	4	Lowered 10/4/24
SAFETY	2	New 6/1/07
TECHNICAL	2	Lowered 1/24/25
BETA	.90	(1.00 = Market)

High/Low price history (per year):
	High	Low
	87.3	67.1
	90.0	65.5
	87.8	70.2
	91.8	76.1
	91.4	72.0
	97.4	82.5
	103.8	62.1
	108.4	85.6
	116.3	83.8
	106.4	83.1
	121.3	90.1
	112.8	105.2

LEGENDS
— 27.0 x Dividends p sh
···· Relative Price Strength
1-for-3 Rev split 7/12
Options: Yes
Shaded area indicates recession

Target Price Range 2028 2029 2030

18-Month Target Price Range
Low-High Midpoint (% to Mid)
$85-$127 $106 (-5%)

2028-30 PROJECTIONS
	Price	Gain	Ann'l Total Return
High	155	(+40%)	11%
Low	115	(Nil)	4%

Institutional Decisions
	1Q2024	2Q2024	3Q2024
to Buy	893	923	984
to Sell	830	811	849
Hld's(000)	503341	507258	578742

Percent shares traded: 15 10 5

% TOT. RETURN 12/24
	THIS STOCK	VL ARITH.* INDEX
1 yr.	16.6	13.6
3 yr.	17.1	14.7
5 yr.	44.7	70.9

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026		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	39.60	41.00	42.50	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	15.05	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 Decl'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	17.50	17.75	18.00	Cap'l Spending per sh	18.75
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	63.00	65.15	67.75	Book Value per sh C	76.25
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	772.50	773.00	774.00	Common Shs Outst'g D	777.00
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	.99			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%

CAPITAL STRUCTURE as of 9/30/24
Total Debt $84068 mill. Due in 5 Yrs $18322 mill.
LT Debt $76524 mill. LT Interest $3020 mill.
Incl. $639 mill. finance leases.
(Total Interest Coverage: 2.5x)
Leases, Uncapitalized Annual rentals $268 mill.
Pension Assets-12/23 $7162 mill.
                    Oblig. $6299 mill.
Pfd Stock $973 mill. Pfd Div'd $106 mill.
Common Stock 772,482,405 shs.
as of 10/31/24
MARKET CAP: $87.0 billion (Large Cap)

						2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026		28-30
						23459	22743	23565	24521	25079	23868	25097	28768	29060	30610	31700	32900	Revenues ($mill)	36800
						2854.0	2560.0	2963.0	3339.0	3747.0	3878.0	4133.0	4166.0	4391.0	4655	5010	5290	Net Profit ($mill)	6320
						32.2%	31.0%	30.4%	14.1%	12.7%	.3%	5.1%	7.4%	9.2%	9.0%	9.0%	9.0%	Income Tax Rate	9.0%
						9.2%	11.7%	12.3%	11.4%	8.0%	6.9%	5.9%	7.6%	9.1%	9.0%	9.0%	9.0%	AFUDC % to Net Profit	8.0%
						48.6%	52.6%	54.0%	53.8%	54.0%	53.7%	55.1%	57.6%	59.6%	61.0%	62.0%	62.5%	Long-Term Debt Ratio	62.5%
						51.4%	47.4%	46.0%	46.2%	44.1%	44.4%	43.1%	40.7%	38.8%	38.0%	37.5%	37.0%	Common Equity Ratio	37.0%
						77222	86609	90774	94940	101807	103589	109744	116383	121564	127650	134525	141400	Total Capital ($mill)	160500
						75709	82520	86391	91694	102127	106782	111408	111748	115315	122425	129400	136300	Net Plant ($mill)	156000
						4.8%	4.0%	4.3%	4.6%	4.7%	4.8%	4.8%	4.6%	4.9%	5.0%	5.0%	5.0%	Return on Total Cap'l	5.0%
						7.2%	6.2%	7.1%	7.6%	8.0%	8.1%	8.4%	8.4%	8.9%	9.5%	10.0%	10.0%	Return on Shr. Equity	10.5%
						7.2%	6.2%	7.1%	7.6%	8.3%	8.2%	8.5%	8.6%	9.1%	9.5%	9.5%	10.0%	Return on Com Equity E	10.5%
						1.5%	.6%	1.2%	2.0%	2.4%	2.3%	1.9%	2.1%	2.4%	3.0%	3.5%	3.5%	Retained to Com Eq	4.0%
						79%	91%	83%	74%	71%	73%	78%	76%	74%	71%	67%	65%	All Div'ds to Net Prof	63%

ELECTRIC OPERATING STATISTICS
	2021	2022	2023
% Change Retail Sales (GWH)	+2.5	+4.5%	-4.8%
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (avg.)	+1.6%	+1.8%	+1.7

| Fixed Charge Cov. (%) | 210 | 229 | 209 |

ANNUAL RATES of change (per sh)
	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '28-'30
Revenues	1.5%	2.0%	4.0%
"Cash Flow"	5.0%	3.5%	5.0%
Earnings	3.0%	3.0%	6.0%
Dividends	2.5%	2.0%	3.5%
Book Value	.5%	.5%	3.0%

QUARTERLY REVENUES ($ mill.)
Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2022	7132	6685	7968	6983	28768
2023	7276	6578	7994	7212	29060
2024	7671	7172	8154	7613	30610
2025	7950	7425	8450	7875	31700
2026	8250	7700	8775	8175	32900

EARNINGS PER SHARE A
Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2022	1.29	1.09	1.78	1.11	5.27
2023	1.20	.91	1.94	1.51	5.56
2024	1.44	1.18	1.62	1.66	5.90
2025	1.50	1.25	1.90	1.70	6.35
2026	1.57	1.33	2.00	1.80	6.70

QUARTERLY DIVIDENDS PAID B ■
Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
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					

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

For 2025 and 2026, we expect Duke Energy will continue to build on its solid track record of consecutive annual earnings gains. This assumes that the final tally for 2024, which will be reported on February 13th, is near our $5.90 estimate. The utility is apt to continue to take advantage of strong weather-adjusted electric volume growth and constructive regulatory outcomes over the intermediate term. Solid population growth in its service territories, at three to four times the national average of 0.5%, is a key part of the story. This is largely being driven by strong migration trends in the Carolinas and Florida. The company is also likely to keep benefiting from rate relief (higher regulated price adjustments) as outlined below. Leadership continues to affirm its earnings growth rate of 5%-7% per annum through 2028. As such, we're comfortable with our respective 2025 and 2026 share-earnings projections of $6.35 and $6.70.

Duke Energy has been making steady progress in a number of recent and pending general rate cases (GRC). In the Sunshine State, the Florida Public Service Commission approved a settlement which will increase Duke Energy Florida's base electric rates and assist in the building of solar-energy facilities. The decision will increase rates by $203 million in 2025 and another $59 million in 2026. It also included up to $141 million for a dozen new solar plants as they are completed. The settlement dictates that Duke uses roughly $50 million in federal tax credits to offset the need for a base-rate hike in 2027. Meanwhile, the final order in Duke's South Carolina GRC became effective in August of last year and will increase rates by 13% over a two-year period. The GRC includes $215 million of new investments in highly efficient natural gas, solar, nuclear, and hydroelectric units over a seven-year period. In addition, delivery rates in North Carolina recently increased by 2.9%. Duke also has pending GRCs in Ohio and Indiana with decisions due in the next few quarters.

This equity is untimely. The 3.7% dividend yield is right on the peer-group average. Annual total return prospects are not favorable from the recent valuation.
Anthony J. Glennon   February 7, 2025

(A) Dil. EPS. Excl. net nonrec. losses: '12, 64¢; '13, 22¢; '14, 59¢; '15, 5¢; '16, 60¢; '18, 96¢; '20, $3.40; '21, 30¢; '22, $2.10; '23, $2.02; net nonrec. gain: '17, 14¢. Qtly. EPS may not sum to annual figure due to rounding. Next egs. due Feb 13th. (B) Div'ds paid mid-Mar., June, Sept., & Dec. ■ Div'd reinv. plan avail. (C) Incl. intang. In '23: $42.70/sh. (D) In mill., (E) Rate base: Net orig. cost. Rate all'd on com. eq. in '21 in NC: 9.6%; 9.5%; in '20 in FL: 9.5%-11.5%; in '20 in IN: 9.7%. in '19 in SC:9.5%; Reg. Clim.: NC, SC Avg.; OH, IN Above Avg.

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

EDISON INTERNAT'L NYSE-EIX

RECENT PRICE **78.44**	P/E RATIO **15.0** (Trailing: 15.2 Median: 14.0)	RELATIVE P/E RATIO **0.83**
DIV'D YLD **4.3%**	VALUE LINE	

TIMELINESS 4 Lowered 10/18/24
SAFETY 2 Raised 10/18/24
TECHNICAL 2 Raised 1/3/25
BETA 1.05 (1.00 = Market)

High: 54.2 68.7 69.6 78.7 83.4 71.0 76.4 78.9 68.6 73.3 74.9 88.8
Low: 44.3 44.7 55.2 58.0 62.7 45.5 53.4 43.6 53.9 54.4 58.8 63.2

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

Target Price Range 2027 2028 2029

18-Month Target Price Range
Low-High   Midpoint (% to Mid)
$63-$97 $80 (-5%)

2027-29 PROJECTIONS
	Price	Gain	Ann'l Total Return
High	120	(+55%)	15%
Low	90	(+15%)	8%

Institutional Decisions
	1Q2024	2Q2024	3Q2024
to Buy	368	403	454
to Sell	329	300	325
Hld's(000)	344659	343961	379213

Percent shares traded: 30 20 10

% TOT. RETURN 12/24
	THIS STOCK	VL ARITH.* INDEX
1 yr.	16.3	13.6
3 yr.	33.1	14.7
5 yr.	31.8	70.9

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
43.31	37.98	38.09	39.16	36.41	38.61	41.17	35.37	36.43	37.81	38.85	34.11	35.83	39.18	45.05	42.56	45.05	47.30	Revenues per sh	54.45
8.08	7.96	8.41	9.03	9.63	8.80	9.95	10.35	10.43	11.03	4.69	9.39	9.80	10.59	11.51	11.80	12.80	13.60	"Cash Flow" per sh	15.10
3.68	3.24	3.35	3.23	4.55	3.78	4.33	4.15	3.94	4.51	d1.26	4.70	4.52	4.59	4.63	4.76	4.95	5.50	Earnings per sh A	6.75
1.23	1.25	1.27	1.29	1.31	1.48	1.48	1.73	1.98	2.23	2.43	2.48	2.58	2.69	2.84	2.99	3.17	3.36	Div'd Decl'd per sh B ■	4.00
8.67	10.07	13.94	14.76	12.73	11.05	11.99	12.97	11.46	11.75	13.84	13.47	14.47	14.47	15.12	14.19	15.70	16.20	Cap'l Spending per sh	16.75
29.21	30.20	32.44	30.86	28.95	30.50	33.64	34.89	36.82	35.82	32.10	36.75	37.08	36.57	35.70	36.02	38.05	40.35	Book Value per sh C	48.60
325.81	325.81	325.81	325.81	325.81	325.81	325.81	325.81	325.81	325.81	325.81	361.99	378.91	380.38	382.21	383.93	387.20	389.00	Common Shs Outst'g D	395.00
12.4	9.7	10.3	11.8	9.7	12.7	13.0	14.8	17.9	17.2	- -	14.1	13.3	12.9	14.0	14.4	15.4		Avg Ann'l P/E Ratio	15.5
.75	.65	.66	.74	.62	.71	.68	.75	.94	.87	- -	.75	.68	.70	.81	.80	.85		Relative P/E Ratio	.85
2.7%	4.0%	3.7%	3.4%	3.0%	2.8%	2.6%	2.8%	2.8%	2.9%	3.8%	3.7%	4.3%	4.5%	4.4%	4.4%	4.1%		Avg Ann'l Div'd Yield	3.8%

CAPITAL STRUCTURE as of 9/30/24
Total Debt $35419 mill. **Due in 5 Yrs** $10489 mill.
LT Debt $32303 mill. **LT Interest** $1710 mill.
(Total Interest Coverage: 2.7x)
Leases, Uncapitalized Annual rentals $166 mill.

Pension Assets-12/23 $3609 mill.
Oblig. $3647 mill.

Pfd Stock $4116 mill. **Pfd Div'd** $225 mill.

Common Stock 387,150,269 shs.
as of 10/22/24
MARKET CAP: $30.4 billion (Large Cap)

13413	11524	11869	12320	12657	12347	13578	14905	17220	16338	17440	18400	Revenues ($mill)					21500
1539.0	1480.0	1422.0	1603.0	d290.0	1716.0	1818.0	1907.0	1977.0	2035.0	2120	2345	Net Profit ($mill)					2880
22.4%	6.6%	11.1%	5.0%	- -	1.2%	5.0%	18.0%	12.5%	14.9%	13.0%	13.0%	Income Tax Rate					13.0%
5.8%	8.0%	6.8%	7.2%	- -	9.6%	9.6%	8.8%	9.6%	11.4%	11.0%	10.0%	AFUDC % to Net Profit					10.0%
44.1%	45.0%	41.8%	45.6%	53.6%	53.5%	55.2%	57.6%	60.7%	62.8%	64.0%	64.0%	Long-Term Debt Ratio					63.5%
47.2%	46.7%	49.2%	45.8%	38.3%	39.9%	39.5%	33.2%	30.6%	28.7%	28.0%	28.5%	Common Equity Ratio					30.0%
23216	24352	24362	25506	27284	33360	35581	41959	44547	48260	52225	55375	Total Capital ($mill)					66000
32981	35085	37000	39050	41348	44285	47839	50700	53486	56084	59100	62250	Net Plant ($mill)					72200
7.7%	7.1%	6.9%	7.3%	.1%	6.4%	6.3%	5.6%	5.7%	5.8%	5.0%	5.5%	Return on Total Cap'l					5.5%
11.9%	11.1%	10.0%	11.6%	NMF	11.1%	11.4%	10.7%	11.3%	11.3%	11.0%	12.0%	Return on Shr. Equity					12.5%
13.0%	12.0%	10.8%	12.7%	NMF	12.0%	12.0%	12.5%	12.9%	13.1%	13.0%	13.5%	Return on Com Equity E					14.0%
8.8%	7.2%	5.6%	6.6%	NMF	5.9%	5.4%	5.4%	5.2%	5.0%	4.5%	5.5%	Retained to Com Eq					5.5%
37%	44%	53%	52%	NMF	54%	58%	61%	64%	66%	68%	65%	All Div'ds to Net Prof					62%

BUSINESS: Edison International is a holding company for Southern California Edison Company (SoCal Edison), which supplies electricity to 5.28 mill. customers in a 50,000-sq.-mi. area in central, coastal, & southern CA (excl. Los Angeles & San Diego). Edison Energy is an energy svcs. co. Disc. Edison Mission Energy (independent power producer) in '12. Elec. rev. breakdown: residential, 40%; commercial, 43%; industrial, 3%; other, 14%. Generating sources: nuclear, 9%; gas, 5%; hydroelectric, 6%; purchased, 80%. Power costs: 34% of revs. '23 reported depr. rate: 4.1%. Employs 14,316. Board Chair: Peter J. Taylor. President & CEO: Pedro J. Pizzaro. Inc.: CA. Address: 2244 Walnut Grove Ave., P.O. Box 976, Rosemead, CA 91770. Tel.: 626-302-2222. Internet: www.edison.com.

ELECTRIC OPERATING STATISTICS
	2021	2022	2023
% Change Retail Sales (KWH)	-3.9	+.9	-6.3
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	21190	24345	21254
Annual Load Factor (%)	52.7	45.8	49.7
% Change Customers (yr-end)	+.3	+.8	+.7

Fixed Charge Cov. (%) 113 135 166

ANNUAL RATES
of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	1.0%	2.5%	4.5%
"Cash Flow"	2.0%	5.5%	5.0%
Earnings	2.0%	14.0%	6.5%
Dividends	8.0%	5.0%	6.0%
Book Value	2.0%	.5%	5.0%

QUARTERLY REVENUES ($ mill.)
Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	2960	3315	5299	3331	14905
2022	3968	4008	5228	4016	17220
2023	3966	3964	4702	3706	16338
2024	4078	4336	5201	3825	17440
2025	4400	4500	5450	4050	18400

EARNINGS PER SHARE A
Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	.79	.94	1.69	1.16	4.59
2022	1.07	.94	1.48	1.15	4.63
2023	1.09	1.01	1.38	1.28	4.76
2024	1.13	1.23	1.51	1.08	4.95
2025	1.30	1.35	1.65	1.20	5.50

QUARTERLY DIVIDENDS PAID B ■
Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	.6625	.6625	.6625	.6625	2.65
2022	.70	.70	.70	.70	2.80
2023	.7375	.7375	.7375	.7375	2.95
2024	.78	.78	.78	.78	3.12
2025	.8275				

As this report went to press, shares of Edison International were under significant pressure, as wild fires swept through portions of Los Angeles County. Until very recently, this stock was holding up well in terms of the overall utility group's latest correction. That performance may have been an indication that institutional investors had been warming up to Edison Int'l. As described in the Electric Utility West Industry report, bankruptcy risk is much lower today than it had been a number of years ago. However, if the company's equipment is at fault of causing a major fire or suffers damages from wildfires, the company can still suffer material adverse losses. Having said that, finances have been improving and major legacy wildfire settlements are nearly paid off. Moreover, the company will be allowed to recoup $1.65 billion (60% of the $2.7 billion filed for) related to TKM disaster legacy payouts. It has also filed for a $5.4 billion rate recovery related to the 2018 Woolsey fire.

For a utility, growth prospects are solid. Rising long-term demand for electricity in California is approaching 3% due to trends in electrification for vehicles and heavy equipment, as well as high tech usage. This is well above the national average and leads to transmission and distribution work that pays off rapidly in terms of return on investment for regulated utilities in the state. Fire mitigation also keeps the rate base growing. Edison's current authorized return on equity (ROE) is 10.3%, but may see an improvement by the middle of this year when a general rate case decision is due. State peer PG&E received an authorized ROE of 10.7% from regulators in 2024. Odds are EIX will receive an increase, too. If so, it may be able to grow earnings by 11% in 2025 and 7% per annum for 2025 to 2028. **This equity is untimely.** And even though EIX's annual total return prospects through 2027-2029 look good relative to the group, investors must still weigh the wildfire risks involved here. Mitigation has reduced the odds of the company's equipment being at fault for fires, and the California Wildfire Fund has vastly reduced bankruptcy risk, but the company can still suffer material wildfire losses.
Anthony J. Glennon January 17, 2025

(A) Adjusted (non-GAAP) EPS from 2019 on. Excl. gains/(losses): nonrecur's ; '10, 54¢; '11, ($3.33); '13, ($1.12); '15, ($1.18); '17, ($1.37); '18, (14¢); '19, (92¢); '20, ($2.54); '21, ($2.59); '22, ($3.02); '23, ($1.34); disc. ops.: '13, 11¢; '14, 57¢; '15, 11¢; '18, 10¢. Qtly. EPS may not sum to full yr. due to rounding. Next egs. report due mid-Feb. (B) Div'ds paid late Jan., Apr., July, & Oct. ■ Div'd reinv. plan avail. (C) Incl. def'd chgs. In '23: $4.36/sh. (D) In mill. (E) Rate base: net orig. cost. Rate all'd on com. eq. in '20: 10.3%; Regulatory Climate: Avg.

Company's Financial Strength	A
Stock's Price Stability	90
Price Growth Persistence	20
Earnings Predictability	15

ENTERGY CORP. NYSE-ETR

RECENT PRICE	152.50	
P/E RATIO	22.9	(Trailing: 18.5 / Median: 14.0)
RELATIVE P/E RATIO	1.19	
DIV'D YLD	3.1%	

VALUE LINE

TIMELINESS	3	Raised 8/16/24
SAFETY	1	Raised 9/6/24
TECHNICAL	3	Raised 10/25/24
BETA	1.00	(1.00 = Market)

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$94-$172	$133 (-15%)

LEGENDS
— 27.00 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
2-for-1 split 12/24
Options: Yes
Shaded area indicates recession

High: 72.6 92.0 90.3 82.1 87.9 90.8 122.1 135.5 115.0 126.8 111.9 156.9
Low: 60.2 60.4 61.3 65.4 69.6 71.9 83.2 75.2 85.8 94.9 87.1 96.1

Target Price Range 2027 2028 2029

2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	160	(+5%)	4%
Low	130	(-15%)	Nil

Institutional Decisions

	4Q2023	1Q2024	2Q2024
to Buy	429	464	496
to Sell	319	343	333
Hld's(000)	191521	189657	195739

Percent shares traded 30 20 10

% TOT. RETURN 10/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	69.6	28.7
3 yr.	70.0	10.7
5 yr.	53.6	73.6

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025		27-29
69.15	56.82	64.27	63.67	57.94	63.86	69.71	64.54	60.55	61.35	58.23	54.63	50.51	57.95	65.18	57.07	*56.40*	*59.00*	Revenues per sh	*69.90*
12.89	13.29	16.54	17.53	15.98	16.25	17.68	17.71	18.72	16.70	16.50	17.19	18.21	17.90	15.51	21.53	*16.20*	*18.05*	"Cash Flow" per sh	*21.35*
6.20	6.30	6.66	7.55	6.02	4.96	5.77	5.81	6.88	5.19	5.88	6.30	6.90	6.87	5.37	11.10	*4.50*	*6.85*	Earnings per sh A	*8.05*
3.00	3.00	3.24	3.32	3.32	3.32	3.32	3.34	3.42	3.50	3.58	3.66	3.74	3.86	4.10	4.34	*4.59*	*4.82*	Div'd Decl'd per sh B ■ †	*5.20*
13.92	12.99	13.33	15.21	18.18	15.73	14.82	16.79	17.28	22.07	22.45	21.72	24.52	30.86	25.04	20.86	*21.00*	*22.00*	Cap'l Spending per sh	*19.75*
42.07	45.54	47.53	50.81	51.73	54.00	55.83	51.89	45.12	44.28	46.78	51.34	54.56	57.42	61.40	68.70	*70.50*	*73.45*	Book Value per sh C	*84.65*
189.36	189.12	178.75	176.36	177.81	178.37	179.24	178.39	179.13	180.52	189.06	199.15	200.24	202.65	211.18	212.85	*218.00*	*222.00*	Common Shs Outst'g D	*230.00*
16.6	12.0	11.6	9.1	11.2	13.2	12.9	12.5	10.9	15.0	13.8	16.5	15.3	15.0	21.1	9.1	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*18.0*
1.00	.80	.74	.57	.71	.74	.68	.63	.57	.75	.75	.88	.79	.81	1.22	.51			Relative P/E Ratio	*1.00*
2.9%	4.0%	4.2%	4.9%	4.9%	5.1%	4.5%	4.6%	4.6%	4.5%	4.4%	3.5%	3.6%	3.7%	3.6%	4.3%			Avg Ann'l Div'd Yield	*3.7%*

CAPITAL STRUCTURE as of 9/30/24

Total Debt $29002 mill. Due in 5 Yrs $11117 mill.
LT Debt $26563 mill. LT Interest $1046.0 mill.
Incl. $54.7 mill. of securitization bonds.
(LT interest earned: 2.5x)

Leases, Uncapitalized Annual rentals $67.4 mill.
Pension Assets-12/23 $5469.6 mill.
Oblig $5915.4 mill.

Pfd Stock $219.4 mill. Pfd Div'd $18.3 mill.
200,000 shs. 6.25%-7.5%, $100 par; 250,000 shs.
8.75%, 1.4 mill. shs. 5.375%; all cum., without sinking fund.

Common Stock 214,408,014 shs. as of 9/30/24
MARKET CAP: $32.7 billion (Large Cap)

	12495	11513	10846	11074	11009	10879	10114	11743	13764	12147	*12300*	*13100*	Revenues ($mill)	*16070*
	1060.0	1061.2	1249.8	950.7	1092.1	1258.2	1406.7	1402.8	1103.2	2356.5	*980*	*1520*	Net Profit ($mill)	*1850*
	37.8%	2.2%	11.3%	1.8%	- -	- -	- -	16.1%	16.1%	16.1%	*20.0%*	*23.0%*	Income Tax Rate	*23.0%*
	9.3%	7.4%	8.1%	14.7%	17.5%	16.7%	12.2%	7.1%	2.5%	1.7%	*2.0%*	*2.0%*	AFUDC % to Net Profit	*2.0%*
	54.9%	57.8%	63.6%	63.6%	63.2%	62.0%	65.5%	67.6%	64.2%	60.8%	*61.0%*	*61.0%*	Long-Term Debt Ratio	*61.0%*
	43.8%	40.8%	35.5%	35.5%	35.9%	37.1%	33.7%	31.7%	35.2%	38.6%	*39.0%*	*39.0%*	Common Equity Ratio	*39.0%*
	22842	22714	22777	22528	24602	27557	32386	36733	36810	37851	*39995*	*42400*	Total Capital ($mill)	*50555*
	28723	27824	27921	29664	31974	35183	38853	42244	42477	43834	*46465*	*49255*	Net Plant ($mill)	*58660*
	6.0%	6.0%	6.9%	5.7%	5.8%	5.9%	5.6%	4.9%	4.3%	7.6%	*3.5%*	*4.5%*	Return on Total Cap'l	*5.0%*
	10.3%	11.1%	15.1%	11.6%	12.0%	12.0%	12.6%	11.8%	8.4%	15.9%	*6.5%*	*9.0%*	Return on Shr. Equity	*9.5%*
	10.4%	11.2%	15.2%	11.7%	12.2%	12.1%	12.7%	11.9%	8.4%	16.0%	*6.5%*	*9.0%*	Return on Com Equity E	*9.5%*
	4.4%	4.8%	7.7%	3.9%	4.9%	5.2%	5.9%	5.2%	1.9%	9.7%	*NMF*	*3.0%*	Retained to Com Eq	*3.5%*
	58%	58%	50%	68%	61%	58%	55%	57%	78%	40%	*102%*	*70%*	All Div'ds to Net Prof	*65%*

ELECTRIC OPERATING STATISTICS

	2021	2022	2023
% Change Retail Sales (KWH)	+3.2	+1.1	+4.5
Total Indust. Use (GWH)	49819	52501	52807
Avg. Indust. Revs. per KWH(c)	5.91	7.08	6.00
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	+1.0	+.4

Fixed Charge Cov. (%)	243	209	250

ANNUAL RATES

of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	-.5%	- -	2.5%
"Cash Flow"	1.0%	1.0%	2.5%
Earnings	2.5%	5.5%	.5%
Dividends	2.0%	3.0%	3.5%
Book Value	2.0%	6.5%	5.0%

Cal-endar	QUARTERLY REVENUES ($ mill.)				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2021	2845	2822	3353	2723	11743
2022	2878	3395	4219	3273	13764
2023	2981	2846	3596	2725	12147
2024	2795	2954	3389	*3162*	*12300*
2025	*3000*	*3500*	*3400*	*3200*	*13100*

Cal-endar	EARNINGS PER SHARE A				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2021	1.66	1.30	2.63	1.28	6.87
2022	1.36	.78	2.74	.51	5.37
2023	1.47	1.84	3.14	4.66	11.10
2024	.35	.23	2.99	*.93*	*4.50*
2025	*1.60*	*1.15*	*3.05*	*1.05*	*6.85*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ †				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2020	.93	.93	.93	.95	3.74
2021	.95	.95	.95	1.01	3.86
2022	1.01	1.01	1.01	1.07	4.10
2023	1.07	1.07	1.07	1.13	4.34
2024	1.13	1.13	1.13	1.20	

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. '23 reported depreciation rate: 2.7%. Has 11,707 employees. Chairman & CEO: Leo P. Denault. Incorporated: Delaware. Address: 639 Loyola Avenue, P.O. Box 61000, New Orleans, Louisiana 70161. Telephone: 504-576-4000. Internet: www.entergy.com.

Entergy recorded lackluster 2024 third-quarter results. Revenues fell below $3.4 billion as the company faced some downtime due to a few hurricanes in its service area in the period. This halted operations at several industrial customers, while Entergy faced higher costs related to fixing damaged infrastructure. Absent these problems, better retail sales occurred, and industrial usage continued to grow during the quarter. Additionally, the power generator benefited from lower fuel costs and fewer asset write-downs. Even so, greater interest expenses are due to an expansion of debt, and depreciation increased as the company has continued to build out its supply operations. Overall, these factors netted earnings of $2.99 per share during the quarter.

The company ought to have weaker fourth-quarter results. However, revenues should grow thanks to better usage of its industrial power sources, including the Entergy Arkansas Walnut Bent Solar project, adding around 100-megawatt generation capacity into service. Still, we think that interest costs will rise. These factors will likely cause a decline in profits to $0.93 per share.

We expect positive results over the long haul. The service coverage area has benefited from more demand for power, including amongst its industrial base, as more customers are brought on board. This includes a new deal for a large customer in Louisiana, while the company has $7.0 billion in capital expansion projects, including renewables in its pipeline. Greater industrial activity across Texas and Louisiana should also drive population growth, allowing for greater retail usage. Still, costs will likely rise, and we think an expanding share count should dilute share profits a bit. Even so, we project earnings will rebound to $6.85 in 2025 and $8.05 by 2027-2029.

Shares of Entergy are neutrally ranked for Timeliness. Also, this stock holds lackluster 3- to 5-year appreciation potential, having moved up considerably since our September report. Meanwhile, the company hiked the dividend by 6% to $4.80 annually. Note that the board approved a 2-for-1 stock split on December 13th, not yet reflected in our presentation.
John E. Seibert III *December 6, 2024*

(A) Diluted EPS. GAAP starting in 2022. Excl. nonrec. losses: '12, $1.26; '13, $1.14; '14, 56¢; '15, $6.99; '16, $10.14; '17, $2.91; '18, $1.25; '21, $1.33. Next earnings report due early February. (B) Div'ds historically paid in early Mar., June, Sept., & Dec. ■ Div'd reinvestment plan avail. † Shareholder investment plan avail. (C) Incl. deferred charges. In '23: $26.66/sh. (D) In mill. (E) Rate base: Net original cost. Allowed ROE (blended): 9.71%; earned on avg. com. eq., '23: 16.0%. Regulatory Climate: Average.

Company's Financial Strength	A+
Stock's Price Stability	90
Price Growth Persistence	45
Earnings Predictability	70

EVERGY, INC. NYSE-EVRG

RECENT PRICE 64.49	**P/E RATIO** 14.9 (Trailing: 18.5 / Median: NMF)	**RELATIVE P/E RATIO** 0.81	**DIV'D YLD** 4.4%	**VALUE LINE**

TIMELINESS 3 Raised 8/23/24
SAFETY 2 New 9/14/18
TECHNICAL 4 Raised 8/30/24
BETA .95 (1.00 = Market)

18-Month Target Price Range
Low-High   Midpoint (% to Mid)
$45-$74 $60 (-10%)

2027-29 PROJECTIONS
	Price	Gain	Ann'l Total Return
High	95	(+60%)	16%
Low	70	(+20%)	9%

Institutional Decisions
	3Q2023	4Q2023	1Q2024
to Buy	320	357	308
to Sell	273	292	320
Hld's(000)	196134	203440	198283

Percent shares traded: 36 / 24 / 12

LEGENDS
.... Relative Price Strength
Options: Yes
Shaded area indicates recession

High: 61.1 / 67.8 / 76.6 / 69.4 / 73.1 / 65.4 / 61.1
Low: 50.9 / 54.6 / 42.0 / 51.9 / 54.1 / 46.9 / 48.0

Target Price Range 2027 2028 2029

Price scale: 128, 96, 80, 64, 48, 40, 32, 24, 16, 12

% TOT. RETURN 7/24
	THIS STOCK	VL ARITH.* INDEX
1 yr.	1.4	9.9
3 yr.	0.3	12.6
5 yr.	15.9	72.0

Evergy, Inc. was formed through the merger of Great Plains Energy and Westar Energy in June of 2018. Great Plains Energy holders received .5981 of a share of Evergy for each of their shares, and Westar Energy holders received one share of Evergy for each of their shares. The merger was completed on June 4, 2018. Shares of Evergy began trading on the New York Stock Exchange one day later.

CAPITAL STRUCTURE as of 9/30/24
Total Debt $11976 mill. **Due in 5 Yrs** $4388 mill.
LT Debt $11571 mill. **LT Interest** $306 mill.
Incl. $40.9 mill. finance leases.
(LT interest earned: 3.8x)

Leases, Uncapitalized Annual rentals $18.8 mill.

Pension Assets-12/22 $1714.7 mill.
Oblig $2561.7 mill.

Pfd Stock None

Common Stock 229,976,171 shs.
MARKET CAP: $13.6 billion (Large Cap)

ELECTRIC OPERATING STATISTICS
	2020	2021	2022
% Change Retail Sales (KWH)	-3.9	+3.1	+6.7
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	7.14	6.94	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	NA	NA	NA
Fixed Charge Cov. (%)	286	350	382

ANNUAL RATES of change (per sh)
	Past 10 Yrs.	Past 5 Yrs.	Est'd '20-'22 to '27-'29
Revenues	--	--	2.5%
"Cash Flow"	--	--	5.0%
Earnings	--	--	7.5%
Dividends	--	--	7.0%
Book Value	--	--	3.5%

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	1611.4	1236.7	1616.5	1122.1	5586.7
2022	1223.9	1446.5	1909.1	1279.6	5859.1
2023	1296.8	1354.2	1669.3	1187.9	5508.2
2024	1331.0	1447.5	1811.4	1210.1	5800
2025	1350	1450	1850	1350	6000

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	.84	.81	1.95	.23	3.83
2022	.53	.84	1.86	.03	3.26
2023	.62	.78	1.53	.24	3.17
2024	.53	.90	2.02	.40	3.85
2025	.65	.95	1.95	.50	4.05

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.505	.505	.505	.535	2.05
2021	.535	.535	.535	.5725	2.18
2022	.5725	.5725	.5725	.6125	2.33
2023	.6125	.6125	.6125	.6425	2.48
2024	.6425	.6425	.6425	.6675	

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC 27-29	
Revenues per sh	--	--	--	--	16.75	22.71	21.66	24.36	25.49	23.98	25.20	26.10	29.55
"Cash Flow" per sh	--	--	--	--	4.89	7.18	7.06	8.18	7.34	8.33	8.20	8.55	9.35
Earnings per sh A	--	--	--	--	2.50	2.79	2.72	3.83	3.26	3.17	3.85	4.05	4.75
Div'd Decl'd per sh B ■	--	--	--	--	1.74	1.93	2.05	2.18	2.33	2.48	2.61	2.74	3.05
Cap'l Spending per sh	--	--	--	--	4.19	5.34	6.88	8.60	9.41	9.23	9.25	9.30	9.50
Book Value per sh C	--	--	--	--	39.28	37.82	38.50	40.32	41.86	42.06	44.10	45.65	47.50
Common Shs Outst'g D	--	--	--	--	255.33	226.64	226.84	229.30	229.90	229.73	230.00	230.00	230.00
Avg Ann'l P/E Ratio	--	--	--	--	22.7	21.8	21.7	16.2	19.9	18.0	Bold figures are		17.5
Relative P/E Ratio	--	--	--	--	1.23	1.16	1.11	.88	1.15	1.01	Value Line		.95
Avg Ann'l Div'd Yield	--	--	--	--	3.1%	3.2%	3.5%	3.5%	4.0%	5.1%	estimates		3.7%
Revenues ($mill)	--	--	--	--	4275.9	5147.8	4913.4	5586.7	5859.1	5508.2	5800	6000	6800
Net Profit ($mill)	--	--	--	--	535.8	669.9	618.3	879.7	752.7	731.3	885	930	1090
Income Tax Rate	--	--	--	--	9.8%	12.6%	14.1%	11.7%	5.8%	2.1%	4.5%	6.5%	9.0%
AFUDC % to Net Profit	--	--	--	--	2.5%	2.5%	5.5%	5.0%	5.1%	5.4%	6.0%	6.0%	5.0%
Long-Term Debt Ratio	--	--	--	--	40.0%	50.6%	51.3%	50.1%	50.0%	51.5%	51.5%	52.0%	53.5%
Common Equity Ratio	--	--	--	--	60.0%	49.4%	48.7%	49.9%	48.0%	48.0%	48.5%	48.0%	46.5%
Total Capital ($mill)	--	--	--	--	16716	17337	17924	18542	19668	20019	21250	22500	23400
Net Plant ($mill)	--	--	--	--	18952	19346	20106	21150	22277	23729	24200	25300	26300
Return on Total Cap'l	--	--	--	--	4.0%	4.8%	4.5%	5.7%	6.9%	6.4%	5.5%	5.5%	6.0%
Return on Shr. Equity	--	--	--	--	5.3%	7.8%	7.1%	9.5%	8.1%	7.6%	9.0%	9.0%	10.0%
Return on Com Equity E	--	--	--	--	5.3%	7.8%	7.1%	9.5%	8.1%	7.6%	9.0%	9.0%	10.0%
Retained to Com Eq	--	--	--	--	.6%	2.4%	1.8%	4.1%	3.1%	2.5%	3.0%	3.0%	3.5%
All Div'ds to Net Prof	--	--	--	--	89%	69%	75%	57%	73%	69%	68%	68%	63%

BUSINESS: Evergy, Inc. was formed through the merger of Great Plains Energy and Westar Energy in June of 2018. Through its subsidiaries (now doing business under the Evergy name), provides electric service to 1.6 million customers in Kansas and Missouri, including the greater Kansas City area. Electric revenue breakdown: residential, 32%; commercial, 27%; industrial, 15%; wholesale, 13%; other, 13%. Generating sources: coal, 54%; nuclear, 17%; purchased, 29%. Fuel costs: 28% of revenues. '23 reported deprec. rate: 3%. Has 4,900 employees. Chairman: Mark A. Ruelle. President and CEO: David A. Campbell. COO: Kevin E. Bryant. Inc.: Missouri. Address: 1200 Main Street, Kansas City, Missouri 64105. Tel.: 816-556-2200. Internet: www.evergy.com.

Evergy looks set to post significantly higher profits in 2024. Indeed, the utility recorded better-than-expected third-quarter results. Revenues of $1.81 billion and earnings of $2.02 a share both surpassed our estimates and improved substantially from the year-prior period. An increased number of cooling days, along with new retail rates and transmission investments were the primary drivers of the strong showing. Management reaffirmed its 2024 bottom-line target range of $3.73-$3.93 per share. Our unchanged estimate sits near the middle of this range. And, the stock price has risen nicely over the past three months. Indeed, these shares are up more than 10% in value over that interim, and have jumped nearly 30% in the past year.

Our full-year 2025 earnings estimate is staying put at $4.05 a share. We expect slower growth compared to 2024, but our estimates are still within Evergy's long-term annual adjusted share-earnings growth target. Indeed, we look for a 5% increase from our 2024 estimate, which is right in the middle of management's updated 4%-6% yearly profit growth target.

The company will likely take advantage of elevated power demand due to data centers and AI innovations, along with regulatory and rate improvements.

The board of directors raised the quarterly dividend, effective with the December payout. The increase was $0.025 a share (4%). The utility's target for the payout ratio is a range of 60%-70%. The yield of 4.4% stands comfortably above the utility average, which is one of the highest dividend-paying industries in the market.

These shares are best suited for conservative, income-oriented accounts. The aforementioned recently raised yield is Evergy's most notable feature. Long-term total return potential remains decent, on a risk-adjusted basis, in comparison to most of its peers, despite the recent stock price increase. We continue to look for the stock to trade around $70-$95 by 2027-2029, and think the company will earn $4.75 a share by then, which has been raised by $0.05 a share. Meanwhile, the stock is ranked to mirror the broader market averages in the year ahead.
Zachary J. Hodgkinson   December 6, 2024

(A) Diluted earnings. Next earnings report due late Feb. (B) Dividends paid in mid-March, June, September, and December. ■ Dividend reinvestment plan available. (C) Incl. intangibles. (D) In millions. (E) Rate base: Original cost depreciated. Rate allowed on common equity in Missouri in '18: none specified; in Kansas in '18: 9.3%; earned on average common equity, '22: 9.8%. Regulatory Climate: Average.

Company's Financial Strength B++
Stock's Price Stability 90
Price Growth Persistence 25
Earnings Predictability 85

IDACORP, INC. NYSE-IDA

RECENT PRICE **107.52**	P/E RATIO **19.1** (Trailing: 19.9 / Median: 20.0)	RELATIVE P/E RATIO **1.06**	DIV'D YLD **3.2%**

VALUE LINE

TIMELINESS 4 Raised 8/16/24	High:	54.7	70.1	70.5	83.4	100.0	102.4	114.0	113.6	113.8	118.9	113.0	120.4		**Target Price Range** 2027 2028 2029
	Low:	43.1	50.2	55.4	65.0	77.5	79.6	89.3	69.1	85.3	93.5	88.1	86.4		

SAFETY 1 Raised 4/19/24

TECHNICAL 1 Raised 1/3/25

BETA .85 (1.00 = Market)

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

18-Month Target Price Range

Low-High Midpoint (% to Mid)

$89-$128 $109 (5%)

2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	150	(+40%)	11%
Low	120	(+10%)	6%

Institutional Decisions

	1Q2024	2Q2024	3Q2024
to Buy	165	191	226
to Sell	200	170	166
Hld's(000)	46315	46039	51027

Percent shares traded: 15 / 10 / 5

% TOT. RETURN 12/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	16.1	13.6
3 yr.	6.9	14.7
5 yr.	19.4	70.9

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
20.47	21.92	20.97	20.55	21.55	24.81	25.51	25.23	25.04	26.76	27.19	26.70	26.77	28.86	32.51	34.90	35.05	36.75	Revenues per sh	39.90
4.27	5.07	5.35	5.84	5.93	6.29	6.58	6.70	6.86	7.50	7.85	8.07	8.19	8.41	8.55	9.11	9.50	10.20	"Cash Flow" per sh	12.25
2.18	2.64	2.95	3.36	3.37	3.64	3.85	3.87	3.94	4.21	4.49	4.61	4.69	4.85	5.11	5.14	5.45	5.80	Earnings per sh A	7.10
1.20	1.20	1.20	1.20	1.37	1.57	1.76	1.92	2.08	2.24	2.40	2.56	2.72	2.88	3.04	3.20	3.35	3.52	Div'd Decl'd per sh B ■ †	4.20
5.19	5.26	6.85	6.76	4.78	4.68	5.45	5.84	5.89	5.66	5.51	5.53	6.16	5.94	8.56	12.07	17.75	16.60	Cap'l Spending per sh	13.40
27.76	29.17	31.01	33.19	35.07	36.84	38.85	40.88	42.74	44.65	47.01	48.88	50.73	52.82	55.52	57.44	63.55	66.60	Book Value per sh C	71.50
46.92	47.90	49.41	49.95	50.16	50.23	50.27	50.34	50.40	50.42	50.42	50.42	50.46	50.52	50.56	50.62	53.50	54.00	Common Shs Outst'g D	56.00
13.9	10.2	11.8	11.5	12.4	13.4	14.7	16.2	19.1	20.6	20.5	22.3	19.9	20.8	21.0	19.9	18.0		Avg Ann'l P/E Ratio	19.0
.84	.68	.75	.72	.79	.75	.77	.82	1.00	1.04	1.11	1.19	1.02	1.12	1.21	1.11	.65		Relative P/E Ratio	1.05
4.0%	4.5%	3.4%	3.1%	3.3%	3.2%	3.1%	3.1%	2.8%	2.6%	2.6%	2.5%	2.9%	2.9%	2.8%	3.1%	3.4%		Avg Ann'l Div'd Yield	3.1%

CAPITAL STRUCTURE as of 9/30/24

Total Debt $3123.7 mill. **Due in 5 Yrs** $200.0 mill.
LT Debt $3054.0 mill. **LT Interest** $140.0 mill.
(Total Interest Coverage: 2.5x)

Pension Assets-12/23 $917.5 mill.
          Oblig $1028.0 mill.

Pfd Stock None

Common Stock 53,269,814 shs.
as of 10/25/24

MARKET CAP: $5.7 billion (Mid Cap)

1282.5	1270.3	1262.0	1349.5	1370.8	1346.4	1350.7	1458.1	1644.0	1766.4	1875	1985	Revenues ($mill)	2235
193.5	194.7	198.3	212.4	226.8	232.9	237.4	245.6	259.0	261.2	290	315	Net Profit ($mill)	400
8.0%	19.0%	15.5%	18.6%	7.1%	9.5%	10.8%	13.1%	12.7%	9.4%	13.0%	13.0%	Income Tax Rate	13.0%
13.6%	16.3%	16.3%	13.9%	15.2%	16.2%	17.3%	17.7%	19.8%	8.8%	15.0%	15.0%	AFUDC % to Net Profit	16.0%
45.3%	45.6%	44.8%	43.7%	43.6%	41.3%	43.9%	42.8%	43.9%	48.8%	48.5%	49.0%	Long-Term Debt Ratio	49.5%
54.7%	54.4%	55.2%	56.3%	56.4%	58.7%	56.1%	57.2%	56.1%	51.2%	51.5%	51.0%	Common Equity Ratio	50.5%
3567.6	3783.3	3898.5	3997.5	4205.1	4201.3	4560.4	4669.1	5001.4	5683.4	6200	6625	Total Capital ($mill)	7500
3833.5	3992.4	4172.0	4283.9	4395.7	4531.5	4709.5	4901.8	5173.0	5745.2	6350	6775	Net Plant ($mill)	7600
6.6%	6.2%	6.1%	6.3%	6.4%	6.5%	6.1%	6.2%	6.1%	5.4%	5.5%	6.0%	Return on Total Cap'l	6.0%
9.9%	9.5%	9.2%	9.4%	9.6%	9.4%	9.3%	9.2%	9.2%	9.0%	9.0%	9.0%	Return on Shr. Equity	9.0%
9.9%	9.5%	9.2%	9.4%	9.6%	9.4%	9.3%	9.2%	9.2%	9.0%	9.0%	9.0%	Return on Com Equity E	9.0%
5.4%	4.8%	4.3%	4.4%	4.4%	4.2%	3.9%	3.7%	3.7%	3.4%	3.5%	3.5%	Retained to Com Eq	3.5%
46%	50%	53%	53%	54%	56%	58%	60%	60%	63%	62%	61%	All Div'ds to Net Prof	59%

ELECTRIC OPERATING STATISTICS

	2021	2022	2023
% Change Retail Sales (KWH)	+3.9	+9.6	+7.3
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	3751	3568	3615
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+2.8	+2.4	+2.4

Fixed Charge Cov. (%)	390	395	315

ANNUAL RATES

of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	3.5%	4.0%	3.5%
"Cash Flow"	3.5%	3.5%	6.0%
Earnings	4.0%	3.5%	6.0%
Dividends	8.0%	6.5%	5.5%
Book Value	4.5%	4.5%	4.5%

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	316.1	360.1	446.9	335.0	1458.1
2022	344.3	358.7	518.0	422.9	1644.0
2023	429.7	413.8	510.9	412.0	1766.4
2024	448.1	451.0	528.5	447.4	1875
2025	475	475	585	450	1985

EARNINGS PER SHARE A

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	.89	1.38	1.93	.65	4.85
2022	.91	1.27	2.10	.83	5.11
2023	1.11	1.35	2.07	.61	5.14
2024	.95	1.71	2.12	.67	5.45
2025	1.05	1.80	2.25	.70	5.80

QUARTERLY DIVIDENDS PAID B ■ †

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
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					

BUSINESS: IDACORP, Inc. is a holding company for Idaho Power Company, a regulated electric utility that serves 633,000 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, 39%; commercial, 21%; industrial, 14%; irrigation, 10%; other, 16%. Generating sources: hydro, 35%; coal, 13%; gas, 15%; purchased, 37%. Fuel costs: 40% of revenues. '23 reported depreciation rate: 3.1%. Has 2,112 employees. Chairman: Dennis L. Johnson. President & CEO: Lisa Grow. Incorporated: Idaho. Address: 1221 W. Idaho St., Boise, Idaho 83702. Telephone: 208-388-2200. Internet: www.idacorpinc.com.

IDACORP has performed well over the first nine months of 2024. The utility company saw a 5% year-over-year increase in its top line and approximately 6% growth in the bottom line. A rise in Idaho base rates, significant customer growth, and higher customer usage due to warmer weather partially offset the impact of increased depreciation and interest expenses. Some of these costs were tied to IDACORP's ongoing infrastructure expansion efforts (more below).

The near-term profit picture appears healthy. Given the utility's recent performance, management has raised the lower end of its anticipated share earnings to the $5.35-$5.45 range, up from the previous $5.30-$5.45 forecast. Key assumptions in this projection include Idaho Power, its subsidiary, expecting additional tax credits of $25 million to $35 million, as well as normal weather trends. Additionally, rate increases requested by the company took effect on January 1, 2025. We believe the utility has strong prospects for both top- and bottom-line growth in the near term, despite the elevated costs related to infrastructure. Therefore, we es-

timate IDACORP to have ended 2024 with a 6% increase in full-year share profit, to $5.45. In 2025, the bottom line will likely continue to grow at a similar pace, reaching $5.80 per share.

IDACORP has a long-term capital expenditure plan in place. The company intends to invest $1 billion to $1.1 billion in 2025, $3.5 billion to $4.0 billion in 2026, and $3.5 billion to $4.0 billion from 2027 to 2028. This plan will help IDACORP meet demand and maintain affordable prices for its customers. Utility companies have incentives to pursue capital projects, which can support future rate-base negotiations.

The board raised the fourth-quarter dividend. The new payment of $0.86 per share, made in December, represents a 3.6% increase over the previous-year tally. **Shares of IDACORP are ranked to underperform the broader market averages in the year ahead (Timeliness: 4).** Plus, the stock has a subpar dividend yield for a utility. Also, these shares do not stand out for 18-month capital gains potential.
Emma Jalees   *January 17, 2025*

(A) Diluted EPS. Earnings may not sum due to rounding. Next earnings report due early February. (B) Dividends historically paid in late February, May, August, and November. ■ Dividend reinvestment plan available. † Shareholder investment plan available. (C) Incl. intangibles. In '23: $882.7 mill., $17.44/sh. (D) In millions. (E) Rate base: Net original cost. Rate allowed on common equity in '12: 10% (imputed); Regulatory Climate: Above Average.

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

NORTHWESTERN NDQ-NWE

| RECENT PRICE | 51.68 | P/E RATIO | 14.7 | (Trailing: 14.0 / Median: 17.0) | RELATIVE P/E RATIO | 0.81 | DIV'D YLD | 5.1% | VALUE LINE |

TIMELINESS **3** Lowered 5/24/24		
SAFETY **2** Raised 10/18/24		
TECHNICAL **2** Raised 12/27/24		
BETA 1.00 (1.00 = Market)		

| High: | 47.2 | 58.7 | 59.7 | 63.8 | 64.5 | 65.7 | 76.7 | 80.5 | 70.8 | 63.1 | 61.2 | 57.5 | |
| Low: | 35.1 | 42.6 | 48.4 | 52.2 | 55.7 | 50.0 | 57.3 | 45.1 | 53.2 | 48.7 | 46.0 | 46.2 | |

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

18-Month Target Price Range
Low-High   Midpoint (% to Mid)
$41-$63 $52 (-5%)

Target Price Range 2027 | 2028 | 2029

2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	75	(+45%)	13%
Low	55	(+5%)	6%

Institutional Decisions

	1Q2024	2Q2024	3Q2024
to Buy	168	158	160
to Sell	128	134	139
Hld's(000)	58166	58903	67655

Percent shares traded: 30 / 20 / 10

% TOT. RETURN 12/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	12.7	13.6
3 yr.	9.9	14.7
5 yr.	-4.7	70.9

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
35.09	31.72	30.66	30.80	28.76	29.80	25.68	25.21	26.01	26.45	23.81	24.93	23.70	25.38	24.74	23.22	24.55	25.80	Revenues per sh	28.90
4.40	4.62	4.76	5.42	5.18	5.45	5.39	5.92	6.74	6.76	6.96	7.07	6.86	6.92	6.46	6.69	7.00	7.45	"Cash Flow" per sh	8.55
1.77	2.02	2.14	2.53	2.26	2.46	2.99	2.90	3.39	3.34	3.40	3.53	3.21	3.50	3.29	3.22	3.40	3.70	Earnings per sh A	4.25
1.32	1.34	1.36	1.44	1.48	1.52	1.60	1.92	2.00	2.10	2.20	2.30	2.40	2.48	2.52	2.56	2.60	2.64	Div'd Decl'd per sh B ■ †	2.76
3.47	5.26	6.30	5.20	5.89	5.95	5.76	5.89	5.96	5.60	5.64	6.26	8.02	8.03	8.62	9.26	8.15	8.15	Cap'l Spending per sh	8.25
21.25	21.86	22.64	23.68	25.09	26.60	31.50	33.22	34.68	36.44	38.60	40.42	41.10	43.28	44.61	45.48	46.35	47.50	Book Value per sh C	51.85
35.93	36.00	36.23	36.28	37.22	38.75	46.91	48.17	48.33	49.37	50.32	50.45	50.59	54.06	59.74	61.25	61.50	62.00	Common Shs Outst'g D	64.00
13.9	11.5	12.9	12.6	15.7	16.9	16.2	18.4	17.2	17.8	16.8	19.9	18.6	17.4	17.3	17.0	15.2		Avg Ann'l P/E Ratio	15.5
.84	.77	.82	.79	1.00	.95	.85	.93	.90	.90	.91	1.06	.96	.94	1.00	.95	.84		Relative P/E Ratio	.85
5.4%	5.7%	4.9%	4.5%	4.2%	3.7%	3.3%	3.6%	3.4%	3.5%	3.9%	3.3%	4.0%	4.1%	4.4%	4.7%	5.0%		Avg Ann'l Div'd Yield	4.2%

CAPITAL STRUCTURE as of 9/30/24
Total Debt $2974.1 mill. **Due in 5 Yrs** $1011.5 mill.
LT Debt $2570.7 mill. **LT Interest** $115.0 mill.
Incl. $2.8 mill. finance leases.
(Total Interest Coverage: 2.6x)

Pension Assets-12/23 $402.7 mill.
Oblig $477.0 mill.

Pfd Stock None

Common Stock 61,314,217 shs.
as of 10/25/24

MARKET CAP: $3.4 billion (Mid Cap)

						2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025		27-29
						1204.9	1214.3	1257.2	1305.7	1198.1	1257.9	1198.7	1372.3	1477.8	1422.1	1510	1600	Revenues ($mill)	1850
						120.7	138.4	164.2	162.7	171.1	179.3	162.6	181.6	185.5	194.1	210	230	Net Profit ($mill)	270
						--	13.7%	--	7.6%	--	1.6%	--	.9%	.9%	3.7%	6.0%	9.0%	Income Tax Rate	12.0%
						8.9%	9.8%	4.3%	5.2%	3.4%	4.6%	6.0%	14.9%	18.5%	21.6%	20.5%	20.0%	AFUDC % to Net Profit	20.0%
						53.4%	53.1%	52.0%	50.2%	52.2%	52.5%	52.8%	52.2%	48.2%	49.1%	50.0%	51.0%	Long-Term Debt Ratio	50.5%
						46.6%	46.9%	48.0%	49.8%	47.8%	47.5%	47.2%	47.8%	51.8%	50.9%	50.0%	49.0%	Common Equity Ratio	49.5%
						3168.0	3408.6	3493.9	3614.5	4064.6	4289.8	4409.1	4893.1	5148.3	5475.4	5725	5975	Total Capital ($mill)	6700
						3758.0	4059.5	4214.9	4358.3	4521.3	4700.9	4952.9	5247.2	5657.5	6039.8	6300	6600	Net Plant ($mill)	7300
						4.8%	5.2%	5.9%	5.6%	5.2%	5.2%	4.6%	4.6%	4.5%	4.5%	4.5%	5.0%	Return on Total Cap'l	5.0%
						8.2%	8.6%	9.8%	9.0%	8.8%	8.8%	7.8%	7.8%	7.0%	7.0%	7.5%	8.0%	Return on Shr. Equity	8.0%
						8.2%	8.6%	9.8%	9.0%	8.8%	8.8%	7.8%	7.8%	7.0%	7.0%	7.5%	8.0%	Return on Com Equity E	8.0%
						3.8%	3.0%	4.1%	3.4%	3.2%	3.1%	2.0%	2.3%	1.7%	1.4%	2.0%	2.5%	Retained to Com Eq	3.0%
						54%	65%	58%	62%	64%	64%	74%	71%	76%	79%	76%	71%	All Div'ds to Net Prof	65%

BUSINESS: NorthWestern Energy Group, Inc. supplies electricity & gas in the Upper Midwest and Northwest, serving 467,700 electric customers in Montana and South Dakota and 307,600 gas customers in Montana, South Dakota, and Nebraska. Electric revenue breakdown for 2023: residential, 44%; commercial, 50%; industrial, 4%; and other, 2%. Generating sources: coal, 18%; hydro, 37%; wind, 4%; natural gas, 12%; purchased power, 29%. Fuel costs: 30% of revenues. 2023 reported depreciation rate: 2.8%. Had 1,573 employees as of 12/31/23. Chair of the board of directors: Dana J. Dykhouse. President and CEO: Brian B. Bird. Incorporated: DE. Address: 3010 West 69th Street, Sioux Falls, SD 57108. Telephone: 605-978-2900. Internet: www.northwesternenergy.com.

ELECTRIC OPERATING STATISTICS

	2021	2022	2023
% Change Retail Sales (KWH)	+.7	+3.7	-.3
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Winter (Mw)	2000	2073	1992
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+1.6	+1.5	+1.6

| Fixed Charge Cov. (%) | 245 | 219 | 216 |

ANNUAL RATES

of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	-2.0%	-1.0%	2.5%
"Cash Flow"	2.5%	-.5%	3.5%
Earnings	3.5%	--	4.5%
Dividends	5.5%	3.5%	1.5%
Book Value	6.0%	4.0%	3.0%

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	400.8	298.2	326.0	347.3	1372.3
2022	394.5	323.0	335.1	425.2	1477.8
2023	454.5	290.5	321.1	356.0	1422.1
2024	475.3	319.9	345.2	369.6	1510
2025	490	330	375	405	1600

EARNINGS PER SHARE A

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	1.24	.59	.70	.97	3.50
2022	1.08	.58	.47	1.16	3.29
2023	1.10	.32	.48	1.32	3.22
2024	1.08	.52	.64	1.16	3.40
2025	1.18	.54	.69	1.29	3.70

QUARTERLY DIVIDENDS PAID B ■ †

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
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					

NorthWestern Energy's 2024 earnings per share were likely lower than we previously expected. While rate relief from the October 2023 general rate case (GRC) decision in Montana was a major plus last year, milder-than-typical weather crimped electricity and natural gas demand in the company's service territory. NorthWestern had also counted on receiving higher interim rates ahead of its next Montana GRC as it had in the last major state regulatory decision. Interim rate relief was delayed and as a result, management revised its share-earnings target range lower to $3.32-$3.47 from the initial $3.42-$3.62 outlook. The company is due to report year-end results after the market closes on February 14th.

NorthWestern is once again due for major rate relief. The public hearing for the GRC, which was filed last year, is scheduled to begin on April 22nd, with a final decision projected to conclude by year's end. It's unclear if interim rates will be forthcoming. In the utility's application to the Montana Public Service Commission, it requested a more than one percentage point hike to its authorized return on equity (ROE), to 10.8% for both natural gas and electric investments. The company is also seeking a $164 million annual revenue increase from electricity customers and $29 million from gas customers. A significant portion of the hike is associated with infrastructure the company has paid for, but not yet billed for. This includes utility poles, pipelines, and a 175-megawatt natural gas generation plant that was delayed and over budget, in part due to it being contested by environmentalist groups. The company said the final cost on the project was about $315 million, up from the budgeted $275 million. Our expectation is that NWE will get much of, but certainly not all of, what it's asking for. We'd be surprised if the ROE is significantly raised.

Income-oriented accounts might find these shares of interest. The 5.1% yield is well above the median 3.7% for electric utilities. We don't see much appreciation potential. And, it will likely take years for the dividend payout ratio to drop enough to allow for growth in the annual payout to match share-earnings gains.

Anthony J. Glennon   January 17, 2025

(A) Diluted egs. Excl. nonrec. gains/(losses): '12, 40¢; '15, 27¢; '18, 52¢; '19, 45¢; '20, (15¢); '21, 10¢; '22, (4¢). Qtly EPS may not sum to full yr. due to rounding. Next egs. report due February 14th. (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. '23: $17.90/sh. (D) In mill.

(E) Rate base: Net orig. cost. Rate allowed on com. eq. 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.

Company's Financial Strength B++
Stock's Price Stability 90
Price Growth Persistence 15
Earnings Predictability 95

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OGE ENERGY CORP. NYSE-OGE

| RECENT PRICE | 39.64 | P/E RATIO | 16.1 | (Trailing: 19.4 / Median: 18.0) | RELATIVE P/E RATIO | 0.88 | DIV'D YLD | 4.3% | VALUE LINE |

TIMELINESS 4	Raised 8/23/24	
SAFETY 3	Lowered 3/8/24	
TECHNICAL 3	Raised 8/30/24	
BETA 1.05	(1.00 = Market)	

High/Low row:
| High: | 40.0 | 39.3 | 36.5 | 34.2 | 37.4 | 41.8 | 45.8 | 46.4 | 38.6 | 42.9 | 40.4 | 40.4 |
| Low: | 27.7 | 32.8 | 24.2 | 23.4 | 32.6 | 29.6 | 38.0 | 23.0 | 29.2 | 33.3 | 31.3 | 32.1 |

LEGENDS
— 25.00 x Dividends p sh
.... Relative Price Strength
2-for-1 split 7/13
Options: Yes
Shaded area indicates recession

18-Month Target Price Range
Low-High Midpoint (% to Mid)
$28-$45 $37 (-10%)

2027-29 PROJECTIONS
	Price	Gain	Ann'l Total Return
High	45	(+15%)	7%
Low	30	(-25%)	-2%

Institutional Decisions
	3Q2023	4Q2023	1Q2024
to Buy	197	210	215
to Sell	199	206	218
Hld's(000)	138173	144477	139254

Percent shares traded: 18 / 12 / 6

Target Price Range 2027 2028 2029

% TOT. RETURN 7/24
	THIS STOCK	VL ARITH.* INDEX
1 yr.	12.6	9.9
3 yr.	31.8	12.6
5 yr.	12.5	72.0

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
21.77	14.79	19.04	19.96	18.58	14.45	12.30	11.00	11.31	11.32	11.37	11.15	10.61	18.26	16.86	13.36	*14.50*	*15.00*	Revenues per sh	*17.50*
2.40	2.69	3.01	3.31	3.69	3.46	3.40	3.23	3.31	3.34	3.74	4.02	4.03	4.44	5.63	4.61	*4.75*	*5.05*	"Cash Flow" per sh	*5.85*
1.25	1.33	1.50	1.73	1.79	1.94	1.98	1.69	1.69	1.92	2.12	2.24	2.08	2.36	2.25	2.07	*2.15*	*2.30*	Earnings per sh A	*2.70*
.70	.71	.73	.76	.80	.85	.95	1.05	1.16	1.27	1.40	1.51	1.58	1.63	1.64	1.66	*1.69*	*1.73*	Div'd Decl'd per sh B ■	*1.85*
4.01	4.37	4.36	6.48	5.85	4.99	2.86	2.74	3.31	4.13	2.87	3.18	3.25	3.89	5.25	4.49	*4.75*	*4.75*	Cap'l Spending per sh	*4.75*
10.14	10.52	11.73	13.06	14.00	15.30	16.27	16.66	17.24	19.28	20.06	20.69	18.15	20.27	22.52	22.17	*23.10*	*23.75*	Book Value per sh C	*26.25*
187.00	194.00	195.20	196.20	197.60	198.50	199.40	199.70	199.70	199.70	199.70	200.10	200.10	200.10	200.20	200.30	*200.20*	*200.20*	Common Shs Outst'g D	*200.20*
12.4	10.8	13.3	14.4	15.2	17.7	18.3	17.7	17.7	18.3	16.5	19.0	16.2	14.3	17.2	17.4	*Bold figures are*		Avg Ann'l P/E Ratio	*14.0*
.75	.72	.85	.90	.97	.99	.96	.89	.93	.92	.89	1.01	.83	.77	1.00	.96	*Value Line*		Relative P/E Ratio	*.80*
4.5%	5.0%	3.7%	3.1%	2.9%	2.5%	2.6%	3.5%	3.9%	3.6%	4.0%	3.5%	4.7%	4.8%	4.5%	5.1%	*estimates*		Avg Ann'l Div'd Yield	*4.4%*

CAPITAL STRUCTURE as of 9/30/24
Total Debt $5053.2 mill. Due in 5 Yrs $1731.5 mill.
LT Debt $5020.8 mill. LT Interest $158.7 mill.
(LT interest earned: 4.3x)

Leases, Uncapitalized Annual rentals $5.7 mill.

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

Pfd Stock None

Common Stock 200,947,879 shs.

MARKET CAP: $8.0 billion (Mid Cap)

2453.1	2196.9	2259.2	2261.1	2270.3	2231.6	2122.3	3653.7	3375.7	2674.3	*2900*	*3000*	Revenues ($mill)	*3500*
395.8	337.6	338.2	384.3	425.5	449.6	415.9	472.5	665.7	416.8	*430*	*460*	Net Profit ($mill)	*540*
30.4%	29.2%	30.5%	32.5%	14.5%	7.4%	13.2%	11.5%	12.0%	12.0%	*12.0%*	*12.0%*	Income Tax Rate	*12.0%*
1.7%	3.7%	6.4%	15.0%	8.3%	1.6%	1.6%	2.2%	2.0%	2.0%	*2.0%*	*2.0%*	AFUDC % to Net Profit	*2.0%*
45.9%	44.3%	41.1%	41.7%	42.0%	43.6%	49.0%	52.6%	49.8%	51.2%	*52.0%*	*51.5%*	Long-Term Debt Ratio	*50.0%*
54.1%	55.7%	58.9%	58.3%	58.0%	56.4%	51.0%	47.4%	52.4%	49.6%	*48.0%*	*48.5%*	Common Equity Ratio	*50.0%*
5999.7	5971.6	5849.6	6600.7	6902.0	7334.7	7126.2	8552.7	8962.0	9238.2	*9750*	*9935*	Total Capital ($mill)	*10400*
6979.9	7322.4	7696.2	8339.9	8643.8	9044.6	9374.6	9832.9	10546.8	11301.0	*11000*	*11250*	Net Plant ($mill)	*12075*
7.8%	6.9%	7.0%	7.0%	7.3%	7.1%	6.9%	6.4%	5.9%	6.3%	*7.0%*	*7.0%*	Return on Total Cap'l	*7.5%*
12.2%	10.2%	9.8%	10.0%	10.6%	10.9%	11.5%	11.6%	11.0%	12.0%	*12.5%*	*12.5%*	Return on Shr. Equity	*13.0%*
12.2%	10.2%	9.8%	10.0%	10.6%	10.9%	11.5%	11.6%	11.0%	12.0%	*12.5%*	*12.5%*	Return on Com Equity E	*13.0%*
6.5%	4.0%	3.3%	3.5%	3.8%	3.6%	2.8%	3.6%	3.0%	3.5%	*4.5%*	*4.5%*	Retained to Com Eq	*5.5%*
47%	61%	67%	64%	64%	67%	76%	69%	73%	81%	*75%*	*75%*	All Div'ds to Net Prof	*57%*

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

| Fixed Charge Cov. (%) | 326 | 336 | 335 |

ANNUAL RATES
of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	-3.0%	5.0%	5.5%
"Cash Flow"	2.5%	5.0%	7.0%
Earnings	3.0%	4.5%	6.5%
Dividends	7.5%	6.5%	3.0%
Book Value	4.0%	1.5%	5.5%

QUARTERLY REVENUES ($ mill.)
Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	1630.0	577.4	864.4	581.3	3653.7
2022	589.3	803.7	1270.0	711.9	3375.7
2023	557.2	605.0	945.4	566.7	2674.3
2024	596.8	662.6	965.4	*675.2*	*2900*
2025	*620*	*780*	*950*	*650*	*3000*

EARNINGS PER SHARE A
Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	.26	.56	1.26	.28	2.36
2022	.33	.36	1.31	.25	2.25
2023	.19	.44	1.20	.24	2.07
2024	.09	.51	1.09	*.46*	*2.15*
2025	*.40*	*.35*	*1.30*	*.25*	*2.30*

QUARTERLY DIVIDENDS PAID B ■
Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.3875	.3875	.3875	.4025	1.57
2021	.4025	.4025	.4025	.41	1.62
2022	.41	.41	.41	.4141	1.64
2023	.4141	.4141	.4141	.4182	1.66
2024	.4182	.4182	.4182	.4213	

BUSINESS: OGE Energy Corp. is a holding company for Oklahoma Gas and Electric Company (OG&E), which supplies electricity to 879,000 customers in Oklahoma (84% of electric revenues) and western Arkansas (8%); wholesale is (8%). Owns 3% of Energy Transfer's limited partnership units. Electric revenue breakdown: residential, 44%; commercial, 25%; industrial, 11%; oilfield, 10%; other, 10%. Generating sources: gas, 25%; coal, 21%; wind, 6%; purchased, 48%. Fuel costs: 58% of revenues. '23 reported depreciation rate (utility): 2.6%. Has 2,200 employees. Chairman, President and Chief Executive Officer: Sean Trauschke. Incorporated: Oklahoma. Address: 321 North Harvey, P.O. Box 321, Oklahoma City, OK 73101-0321. Tel.: 405-553-3000. Internet: www.oge.com.

OGE Energy's utility subsidiary is progressing on the regulatory front. Remember that in Oklahoma, a $126.6 million rate increase took effect in July, subject to a final order to approve the hike. The Oklahoma Corporation Commission recently delayed the vote due to differences of opinions between commission chairs. The utility initially proposed a $322 million (13.85%) hike or a $19.02 average monthly rise per residential customer. The increase will likely help OGE recover essential capital investments to strengthen and improve the reliability of the electric grid. An order is expected by the end of this year or the beginning of 2025.

Our 2024 profit estimate is staying put at $2.15 a share. Management looks for earnings to come in at the high end of its range of $2.06-$2.18 due to strong load growth and warmer than normal weather. This assumes approval of the Oklahoma rate review, among other things. We look for sharper growth next year compared to 2024 levels. Indeed, our 2025 bottom-line estimate represents 7% growth from our 2024 projections. OGE looks to be in-creasingly well positioned over the next few years, and should take advantage of increased power demand and the clean energy transition, as a pure play electric utility.

The board of directors has raised the dividend, effective with the October payment. The increase was modest, at $0.003 a share quarterly (1% higher). This issue offers a very attractive dividend, and the yield of 4.3% stands comfortably above the utility average, which is one of the best dividend-paying industries in the market.

This issue is best suited for income-oriented investors. The aforementioned recently raised dividend distribution remains the most notable feature at this juncture. But, intermediate- and long-term risk-adjusted capital appreciation potential is unattractive. Indeed, the current quotation is well within both our 18-month and 3- to 5-year Target Price Ranges. Too, the Timeliness rank has been lowered one notch to 4 (Below Average), which means OGE is slated to trail the broader market averages in the year ahead.
Zachary J. Hodgkinson   December 6, 2024

PINNACLE WEST NYSE-PNW

| RECENT PRICE | 83.09 | P/E RATIO | 17.0 | (Trailing: 15.7 / Median: 17.0) | RELATIVE P/E RATIO | 0.94 | DIV'D YLD | 4.3% | VALUE LINE |

TIMELINESS	3	Raised 12/13/24
SAFETY	2	Raised 10/18/24
TECHNICAL	1	Raised 1/3/25
BETA	.95	(1.00 = Market)

| | High: | 61.9 | 71.1 | 73.3 | 82.8 | 92.5 | 92.6 | 99.8 | 105.5 | 88.5 | 80.6 | 86.0 | 95.4 |
| | Low: | 51.5 | 51.2 | 56.0 | 62.5 | 75.8 | 73.4 | 81.6 | 60.1 | 62.8 | 59.0 | 68.6 | 65.2 |

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

Target Price Range 2027 2028 2029

18-Month Target Price Range
Low-High   Midpoint (% to Mid)
$62-$99 $81 (-10%)

2027-29 PROJECTIONS
	Price	Gain	Ann'l Total Return
High	125	(+50%)	14%
Low	90	(+10%)	6%

Institutional Decisions
	1Q2024	2Q2024	3Q2024
to Buy	234	245	274
to Sell	268	225	226
Hld's(000)	110427	114098	123296

Percent shares traded 30 20 10

% TOT. RETURN 12/24
	THIS STOCK	VL ARITH.* INDEX
1 yr.	26.1	13.6
3 yr.	40.8	14.7
5 yr.	19.0	70.9

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
33.37	32.50	30.01	29.67	30.09	31.35	31.58	31.50	31.42	31.90	32.93	30.87	31.81	33.66	38.21	41.40	44.50	43.20	Revenues per sh	50.00
8.13	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	13.10	12.95	"Cash Flow" per sh	15.35
2.12	2.26	3.08	2.99	3.50	3.66	3.58	3.92	3.95	4.43	4.54	4.77	4.87	5.47	4.26	4.41	5.10	4.80	Earnings per sh A	6.00
2.10	2.10	2.10	2.10	2.67	2.23	2.33	2.44	2.56	2.70	2.87	3.04	3.23	3.43	3.43	3.49	3.55	3.61	Div'd Decl'd per sh B ■	3.80
9.46	7.64	7.03	8.26	8.24	9.36	8.38	9.84	11.64	12.80	10.73	10.76	11.93	13.04	15.09	16.28	17.00	17.00	Cap'l Spending per sh	17.20
34.16	32.69	33.86	34.98	36.20	38.07	39.50	41.30	43.15	44.80	46.59	48.30	49.96	52.26	53.45	54.47	61.30	61.20	Book Value per sh C	69.95
100.89	101.43	108.77	109.25	109.74	110.18	110.57	110.98	111.34	111.75	112.10	112.44	112.76	113.01	113.17	113.42	114.00	118.00	Common Shs Outst'g D	125.00
16.1	13.7	12.6	14.6	14.3	15.3	15.9	16.0	18.7	19.3	17.8	19.4	16.7	14.1	17.1	17.4	15.7		Avg Ann'l P/E Ratio	18.0
.97	.91	.80	.92	.91	.86	.84	.81	.98	.97	.96	1.03	.86	.76	.99	.97	.87		Relative P/E Ratio	1.00
6.2%	6.8%	5.4%	4.8%	5.3%	4.0%	4.1%	3.9%	3.5%	3.2%	3.5%	3.3%	4.0%	4.3%	4.7%	4.5%	4.4%		Avg Ann'l Div'd Yield	3.5%

CAPITAL STRUCTURE as of 9/30/24
Total Debt $9679.7 mill. Due in 5 Yrs $2225.0 mill.
LT Debt $8056.2 mill. LT Interest $355.0 mill.
(Total Interest Coverage: 2.8x)

Leases, Uncapitalized Annual rentals $19.2 mill.

Pension Assets-12/23 $2835.5 mill.
Oblig. $2908.1 mill.

Pfd Stock None

Common Stock 113,699,820 shs.
as of 10/30/24
MARKET CAP: $9.4 billion (Mid Cap)

						3491.6	3495.4	3498.7	3565.3	3691.2	3471.2	3587.0	3803.8	4324.4	4696.0	5075	5100	Revenues ($mill)	6250
						397.6	437.3	442.0	497.8	511.0	538.3	550.6	618.7	483.6	501.6	580	560	Net Profit ($mill)	750
						34.2%	34.3%	33.9%	32.5%	20.2%	- -	12.1%	14.8%	13.0%	12.9%	14.0%	14.0%	Income Tax Rate	14.0%
						11.6%	11.8%	14.1%	13.9%	15.2%	9.3%	9.5%	10.1%	15.2%	19.3%	19.5%	20.5%	AFUDC % to Net Profit	22.0%
						41.0%	43.0%	45.6%	48.9%	47.0%	47.1%	52.8%	53.9%	56.1%	55.0%	52.5%	54.0%	Long-Term Debt Ratio	52.0%
						59.0%	57.0%	54.4%	51.1%	53.0%	52.9%	47.2%	46.1%	43.9%	45.0%	47.5%	46.0%	Common Equity Ratio	48.0%
						7398.7	8046.3	8825.4	9796.4	9861.1	10263	11948	12820	13790	13718	14650	15650	Total Capital ($mill)	18300
						11194	11809	12714	13445	14030	14523	15159	15987	16854	17980	19025	20050	Net Plant ($mill)	23050
						6.4%	6.4%	6.0%	6.1%	6.2%	6.3%	5.5%	5.8%	4.5%	5.0%	5.0%	5.0%	Return on Total Cap'l	5.5%
						9.1%	9.5%	9.2%	9.9%	9.8%	9.9%	9.8%	10.5%	8.0%	8.1%	8.5%	7.5%	Return on Shr. Equity	8.5%
						9.1%	9.5%	9.2%	9.9%	9.8%	9.9%	9.8%	10.5%	8.0%	8.1%	8.5%	7.5%	Return on Com Equity E	8.5%
						3.5%	3.9%	3.5%	4.2%	3.9%	3.8%	3.5%	4.2%	1.7%	1.9%	2.5%	2.0%	Retained to Com Eq	3.0%
						62%	59%	62%	58%	60%	61%	64%	60%	78%	77%	69%	75%	All Div'ds to Net Prof	63%

ELECTRIC OPERATING STATISTICS
	2021	2022	2023
% Change Retail Sales (KWH)	-.1	+4.4	+2.8
Avg. Indust. Use (MWH)	808	849	874
Avg. Indust. Revs. per KWH (¢)	8.11	9.20	10.38
Capacity at Peak (Mw)	8726	8612	9629
Peak Load, Summer (Mw)	7580	7587	8159
Annual Load Factor (%)	45.1	48.1	45.7
% Change Customers (yr-end)	+2.2	+2.1	+1.8

| Fixed Charge Cov. (%) | 317 | 226 | 220 |

ANNUAL RATES
of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	2.0%	3.5%	5.0%
"Cash Flow"	4.0%	3.5%	4.5%
Earnings	3.5%	2.0%	4.0%
Dividends	4.0%	5.0%	1.5%
Book Value	4.0%	3.5%	4.5%

QUARTERLY REVENUES ($ mill.)
Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	696.5	1000.2	1308.2	798.9	3803.8
2022	783.5	1061.7	1469.9	1009.3	4324.4
2023	945.0	1121.7	1637.8	991.5	4696.0
2024	951.7	1309.0	1768.8	1045.5	5075
2025	1000	1260	1750	1090	5100

EARNINGS PER SHARE A
Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	.32	1.91	3.00	.24	5.47
2022	.15	1.45	2.88	d.21	4.26
2023	d.03	.94	3.50	Nil	4.41
2024	.15	1.76	3.37	d.18	5.10
2025	.20	1.50	3.25	d.15	4.80

QUARTERLY DIVIDENDS PAID B ■
Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
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					

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, 49%; commercial/industrial, 44%; other, 7%. Generating sources: gas, 25%; nuclear, 25%; coal, 18%; renewables, 2%; purchased, 30%. Fuel costs: 38% of revenues. '23 reported deprec. rate: 2.8%. Has 6,133 employees. Chairman, President & CEO: Jeffrey B. Guldner. Inc.: AZ. Address: 400 North Fifth St., P.O. Box 53999, Phoenix, AZ 85072-3999. Tel.: 602-250-1000. Internet: www.pinnaclewest.com.

Pinnacle West Capital will likely report a very strong earnings gain for 2024. Constructive progress on the regulatory front last March helped. A revamped Arizona Corporate Commission raised the utility's authorized return on equity (ROE) to 9.55%, with upside to 9.85% if certain conditions are met, from a miserly 8.7% previously. The restoration of a more reasonable regulated ROE boosted Pinnacle West's earnings power by about $1.00 per share. In addition, the company benefited from a record-setting heat wave in its Arizona service area, as customers used more electricity to cool their homes and businesses. There was a stretch of 113 consecutive days when temperatures rose above 100 degrees in the Phoenix area. There were also 70 days when temperatures rose above 110 degrees, which was up from the previous record of 55 days above 110, set in 2023. **Management expects the company's overheated bottom line to cool off some this year.** It has provided a preliminary 2025 weather-normalized earnings projection of $4.40 to $4.60 per share. We suspect the company will be proven to be too conservative in its forecast. Sweltering heat in 2023 followed by an even more oppressive stretch in 2024 doesn't seem like a trend that will pivot back to management's idea of average temperatures, which are based on several decades of data. In addition, Pinnacle West's service area benefits from strong migration, as Arizona's 2.5% flat income tax rate helps draw in out-of-state retirees. A business friendly government also keeps the regional economy headed in the right direction. Customer growth was likely up 2% last year and will probably be up by a similar amount going forward. **These shares are neutrally ranked for year-ahead relative performance.** Longer term, we like this electric utility a lot, as it's the beneficiary of a premium service area in terms of rising energy demand from population growth and a thriving economy. Even so, utility investors need to be disciplined buyers and wait for a bit more of a drawdown before committing here. A 5%-7% dip would translate to a worthwhile risk-adjusted annual total return expectation.
Anthony J. Glennon   *January 17, 2025*

(A) Diluted EPS. Excl. nonrec. gain/(loss): '09, ($1.45); '17, 8¢; gains/(losses) from discont. ops.: '08, 28¢; '09, (13¢); '10, 18¢; '11, 10¢; '12, (5¢). Qtly. EPS may not sum to full year due to rounding. Next egs. report due late Feb. (B) Div'ds historically paid in early Mar., June, Sept., & Dec. There were 5 declarations in '12. ■ Div'd reinvestment plan avail. (C) Incl. deferred charges/other intangibles. In '23: $27.22/sh. (D) In mill. (E) Rate base: Fair value. Rate allowed on common equity in '24: 9.55%-9.85%. Regulatory Climate: Average.

Company's Financial Strength A
Stock's Price Stability 85
Price Growth Persistence 30
Earnings Predictability 85

PORTLAND GENERAL NYSE-POR

| RECENT PRICE | 42.33 | P/E RATIO | 13.8 | (Trailing: 12.2 / Median: 18.0) | RELATIVE P/E RATIO | 0.76 | DIV'D YLD | 4.9% | VALUE LINE |

TIMELINESS	**3**	Raised 11/15/24
SAFETY	**2**	Raised 7/19/24
TECHNICAL	**1**	Raised 1/10/25
BETA .95	(1.00 = Market)	

High/Low bands:

| High: | 33.3 | 40.3 | 41.0 | 45.2 | 50.1 | 50.4 | 58.4 | 63.1 | 53.1 | 57.0 | 51.6 | 49.8 |
| Low: | 27.4 | 29.0 | 33.0 | 35.3 | 42.4 | 39.0 | 44.0 | 32.0 | 40.8 | 41.6 | 38.0 | 39.1 |

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

Target Price Range 2027 2028 2029

18-Month Target Price Range
Low-High   Midpoint (% to Mid)
$39-$60 $50 (5%)

2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	75	(+75%)	19%
Low	55	(+30%)	11%

Institutional Decisions

	1Q2024	2Q2024	3Q2024
to Buy	186	240	241
to Sell	188	144	166
Hld's(000)	102071	106708	118198

Percent shares traded: 21 / 14 / 7

% TOT. RETURN 12/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	6.8	13.6
3 yr.	-5.5	14.7
5 yr.	-3.4	70.9

Statistical Array

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
27.89	23.99	23.67	24.06	23.89	23.18	24.29	21.38	21.62	22.54	22.30	23.75	23.96	26.80	29.65	28.90	31.40	32.75	Revenues per sh	35.40
4.71	4.07	4.82	4.96	5.15	4.93	6.08	5.37	5.78	6.16	6.65	6.97	7.83	7.25	7.41	6.83	7.75	8.10	"Cash Flow" per sh	9.45
1.39	1.31	1.66	1.95	1.87	1.77	2.18	2.04	2.16	2.29	2.37	2.39	2.75	2.72	2.74	2.38	3.10	3.25	Earnings per sh A	3.85
.97	1.01	1.04	1.06	1.08	1.10	1.12	1.18	1.26	1.34	1.43	1.52	1.59	1.70	1.79	1.88	1.98	2.08	Div'd Decl'd per sh B ∎ †	2.46
6.12	9.25	5.97	3.98	4.01	8.40	12.87	6.73	6.57	5.77	6.67	6.78	8.76	7.11	8.58	13.42	12.35	11.00	Cap'l Spending per sh	11.25
21.64	20.50	21.14	22.07	22.87	23.30	24.43	25.43	26.35	27.11	28.07	28.99	29.18	30.28	31.13	32.81	34.35	35.90	Book Value per sh C	41.00
62.58	75.21	75.32	75.36	75.56	78.09	78.23	88.79	88.95	89.11	89.27	89.39	89.54	89.41	89.28	101.16	106.00	110.00	Common Shs Outst'g D	120.00
16.3	14.4	12.0	12.4	14.0	16.9	15.3	17.7	19.1	20.0	18.4	22.3	16.6	17.7	18.2	19.3	14.3		Avg Ann'l P/E Ratio	16.5
.98	.96	.76	.78	.89	.95	.81	.89	1.00	1.01	.99	1.19	.85	.96	1.05	1.08	.79		Relative P/E Ratio	.90
4.3%	5.4%	5.2%	4.4%	4.1%	3.7%	3.3%	3.3%	3.1%	2.9%	3.3%	2.8%	3.5%	3.5%	3.6%	4.1%	4.4%		Avg Ann'l Div'd Yield	3.9%
1900.0	1898.0	1923.0	2009.0	1991.0	2123.0	2145.0	2396.0	2647.0	2923.0							3330	3600	Revenues ($mill)	4250
175.0	172.0	193.0	204.0	212.0	214.0	247.0	244.0	245.0	233.0							320	350	Net Profit ($mill)	455
26.0%	20.7%	20.6%	25.3%	7.4%	11.2%	12.4%	8.6%	15.2%	16.8%							17.5%	17.5%	Income Tax Rate	17.5%
33.7%	19.8%	16.6%	8.8%	8.0%	7.0%	9.7%	10.2%	8.6%	13.7%							11.0%	11.0%	AFUDC % to Net Profit	11.0%
52.7%	47.8%	48.4%	50.1%	46.5%	51.3%	53.6%	56.8%	57.0%	55.8%							56.0%	55.5%	Long-Term Debt Ratio	54.0%
47.3%	52.2%	51.6%	49.9%	53.5%	48.7%	46.4%	43.2%	43.0%	44.2%							44.0%	44.5%	Common Equity Ratio	46.0%
4037.0	4329.0	4544.0	4842.0	4684.0	5323.0	5628.0	6265.0	6459.0	7513.0							8300	8900	Total Capital ($mill)	10750
5679.0	6012.0	6434.0	6741.0	6887.0	7161.0	7539.0	8005.0	8465.0	9546.0							10350	11000	Net Plant ($mill)	12900
5.8%	5.4%	5.6%	5.5%	5.8%	5.1%	5.6%	4.9%	4.9%	4.2%							5.0%	5.0%	Return on Total Cap'l	5.5%
9.2%	7.6%	8.2%	8.4%	8.5%	8.3%	9.5%	9.0%	8.8%	7.0%							9.0%	9.0%	Return on Shr. Equity	9.5%
9.2%	7.6%	8.2%	8.4%	8.5%	8.3%	9.5%	9.0%	8.8%	7.0%							9.0%	9.0%	Return on Com Equity E	9.5%
4.6%	3.3%	3.5%	3.6%	3.5%	3.1%	4.1%	3.5%	3.1%	1.6%							3.0%	3.0%	Retained to Com Eq	3.5%
50%	56%	57%	58%	59%	63%	57%	61%	64%	77%							64%	64%	All Div'ds to Net Prof	64%

CAPITAL STRUCTURE as of 9/30/24
Total Debt $4739 mill. Due in 5 Yrs $570 mill.
LT Debt $4633 mill. LT Interest $205 mill.
Incl. $279 mill. finance leases.
(Total Interest Coverage: 2.8x)
Leases, Uncapitalized Annual rentals $3 mill.
Pension Assets-12/23 $530 mill.
Oblig. $690 mill.

Pfd Stock None

Common Stock 105,455,590 shs.
as of 10/18/24

MARKET CAP: $4.5 billion (Mid Cap)

ELECTRIC OPERATING STATISTICS

	2021	2022	2023
% Change Retail Sales (KWH)	+5.1	+3.4	+.9
Avg. Indust. Use (MWH)	20002	22097	23052
Avg. Indust. Revs. per KWH (¢)	5.22	5.23	5.85
Capacity at Peak (MW)	NA	NA	NA
Peak Load, Summer (MW)	4453	4255	4498
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+.6	+1.1	+.7

Fixed Charge Cov. (%): 261 / 254 / 217

ANNUAL RATES

of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	2.0%	5.0%	3.5%
"Cash Flow"	3.5%	3.0%	5.0%
Earnings	3.5%	3.0%	5.5%
Dividends	5.0%	6.0%	5.5%
Book Value	3.5%	3.0%	4.0%

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	609	537	642	608	2396
2022	626	591	743	687	2647
2023	748	648	802	725	2923
2024	929	758	929	714	3330
2025	975	800	1000	825	3600

EARNINGS PER SHARE A

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	1.07	.36	.56	.73	2.72
2022	.67	.72	.65	.70	2.74
2023	.80	.44	.46	.67	2.38
2024	1.21	.69	.90	.30	3.10
2025	1.17	.70	.93	.45	3.25

QUARTERLY DIVIDENDS PAID B ∎ †

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
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				

BUSINESS: Portland General Electric Company provides electricity to 934,000 customers in 51 cities in a 4,000-square-mile area of Oregon, including Portland and Salem (population: 1.9 million). The company is in the process of decommissioning the Trojan nuclear plant, which was closed in 1993. Electric revenue breakdown: residential, 52%; commercial, 33%; industrial, 15%; other, less than 1%. Generating sources: gas, 40%; wind, 7%; coal, 8%; hydro, 4%; purchased, 41%. Fuel costs: 40% of revenues. '23 reported depreciation rate: 3.4%. Has 2,842 full-time employees. Chair: James P. Torgerson. President and CEO: Maria M. Pope. Incorporated: Oregon. Address: 121 S.W. Salmon Street, Portland, OR 97204. Tel.: 503-464-8000. Internet: www.portlandgeneral.com.

Portland General Electric should report a strong bottom-line increase for 2024. Admittedly, 2023 comparisons were easy to improve upon, as demand suffered from mild weather. At the same time, purchased-power costs were exceptionally high in 2023. The weather situation improved last year, and volumes rose due to strong demand growth from the semiconductor industry and data centers. It was also a plus that Portland General has become less reliant on volatile at-the-market purchased power. The utility brought its Clearwater Wind development project on line early in 2024. Portland General will continue to bring on new renewable capacity additions under the formula of half company owned and half long-term stable purchased power agreements from a strategic partner.

Higher electric rates are likely to lift earnings further in 2025. In December, the utility received its general rate case decision from Oregon regulators. Effective from January 1st of this year, residential rates are set to rise by 5.5%. Commercial and industrial rates will be up as much as 7.7%. The company was seeking an 8.6% across-the-board hike in rates for recoupment of investments made, plus timely recovery mechanisms via customer billing pass-throughs. The new rates are based on an authorized return on equity of 9.35%, which suffered a 15 basis point trim from the previous 9.5% level.

Longer-term prospects are favorable. Portland General ought to benefit from 2%-3% annual load growth, supported by a healthy high-tech industrial segment in its service area. Profitability will likely be on the rise, as the utility continues to reduce its reliance on open-market power purchases, which are vulnerable to price spikes during periods of high demand or constrained supply. Portland General has the green light from regulators to add more nonemitting annual power generation, plus significant battery storage capacity. Over the stretch to 2027-2029, 5%-6% annual earnings gains looks feasible.

Utility investors focused on the longer term should find this equity of interest. POR's dividend yield is 120 basis points above the peer-group average. And, total return prospects look worthwhile.
Anthony J. Glennon   January 17, 2025

(A) Diluted earnings. Excl. nonrecurring gains/(losses): '13, (42¢); '17, (19¢); '20, ($1.03); '22, (14¢); '23, (5¢); Q1-Q3 '24, (13¢). Quarterly EPS many not sum to full year due to rounding. Next earnings report due mid-Feb. (B) Dividends paid mid-Jan., Apr., July, and Oct. ∎ Dividend reinvestment plan available. † Shareholder investment plan available. (C) Incl. deferred charges. In '23: $492 mill., $4.86/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	A
Stock's Price Stability	90
Price Growth Persistence	30
Earnings Predictability	90

SOUTHERN COMPANY NYSE-SO

| RECENT PRICE | 86.50 | P/E RATIO | 20.6 | (Trailing: 20.6 / Median: 17.0) | RELATIVE P/E RATIO | 1.13 | DIV'D YLD | 3.4% | VALUE LINE |

TIMELINESS	4	Lowered 11/29/24
SAFETY	2	Lowered 2/21/14
TECHNICAL	2	Raised 2/7/25
BETA	.95	(1.00 = Market)

High/Low:
High:	51.3	53.2	54.6	53.5	49.4	64.3	71.1	68.9	80.6	75.8	94.4	86.6				
Low:	40.3	41.4	46.0	46.7	42.4	43.3	42.0	56.7	60.7	58.8	65.8	80.5				

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

Target Price Range 2028 2029 2030

18-Month Target Price Range
Low-High   Midpoint (% to Mid)
$64-$98 $81 (-5%)

2028-30 PROJECTIONS
	Price	Gain	Ann'l Total Return
High	105	(+20%)	8%
Low	75	(-15%)	Nil

Institutional Decisions
	1Q2024	2Q2024	3Q2024
to Buy	822	895	980
to Sell	786	732	765
Hld's(000)	707349	735543	829101

Percent shares traded: 18 / 12 / 6

% TOT. RETURN 12/24
	THIS STOCK	VL ARITH.* INDEX
1 yr.	20.7	13.6
3 yr.	33.5	14.7
5 yr.	55.0	70.9

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	© VALUE LINE PUB. LLC 28-30
Revenues per sh	19.21	20.70	20.41	19.06	19.26	20.34	19.18	20.09	22.86	22.73	20.34	19.29	21.80	26.89	23.15	24.15	24.85	25.80	28.30
"Cash Flow" per sh	4.43	4.51	4.91	5.18	5.27	5.28	5.47	5.69	6.64	6.41	6.33	6.98	7.20	7.34	7.79	8.25	8.50	8.80	9.70
Earnings per sh A	2.32	2.36	2.55	2.67	2.70	2.77	2.84	2.83	3.21	3.00	3.17	3.25	3.42	3.61	3.64	4.05	4.30	4.60	5.50
Div'd Decl'd per sh B ■	1.73	1.80	1.87	1.94	2.01	2.08	2.15	2.22	2.30	2.38	2.46	2.54	2.62	2.70	2.78	2.86	2.96	3.05	3.10
Cap'l Spending per sh	5.70	4.85	5.23	5.54	6.16	6.58	6.22	7.38	7.37	7.74	7.17	7.04	6.83	7.87	8.88	8.85	8.75	8.70	8.50
Book Value per sh C	18.15	19.21	20.32	21.09	21.43	21.98	22.59	25.00	23.98	23.92	26.11	26.48	26.30	27.93	28.82	29.90	31.75	31.90	32.25
Common Shs Outst'g D	819.65	843.34	865.13	867.77	887.09	907.78	911.72	990.39	1007.6	1033.8	1053.3	1056.5	1060.0	1089.0	1091.0	1095.0	1095.0	1095.0	1095.0
Avg Ann'l P/E Ratio	13.5	14.9	15.8	17.0	16.2	16.0	15.8	17.8	15.5	15.1	17.6	17.9	18.4	19.6	19.1	19.6	Bold figures are Value Line estimates		16.5
Relative P/E Ratio	.90	.95	.99	1.08	.91	.84	.80	.93	.78	.82	.94	.92	1.00	1.14	1.06	1.09			.90
Avg Ann'l Div'd Yield	5.5%	5.1%	4.6%	4.3%	4.6%	4.7%	4.8%	4.4%	4.6%	5.3%	4.4%	4.4%	4.2%	4.1%	4.1%	3.4%			3.6%

CAPITAL STRUCTURE as of 9/30/24
Total Debt $62896 mill. **Due in 5 Yrs** $15427 mill.
LT Debt $61254 mill.   **LT Interest** $1754 mill.
Incl. $215 mill. finance leases.
(LT interest earned: 3.3x)
Leases, Uncapitalized Annual rentals $307 mill.
Pension Assets-12/23 $14218 mill.
                                    Oblig $16382 mill.
Pfd Stock $242 mill.   **Pfd Div'd** $15 mill.
Incl. 10 mill. shs. 5.83% cum. pfd. ($25 stated value); 475,115 shs. 4.2%-5.44% cum. pfd. ($100 par).
Common Stock 1,095,684,180 shs.
MARKET CAP: $94.8 billion (Large Cap)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	28-30
Revenues ($mill)	17489	19896	23031	23495	21419	20375	23113	29279	25253	26450	27200	28250	31000
Net Profit ($mill)	2647.0	2757.0	3269.0	3096.0	3354.0	3481.0	3670.0	3931.3	3976.0	4435	4710	5035	6025
Income Tax Rate	33.4%	28.5%	25.2%	21.3%	15.9%	14.3%	16.3%	18.9%	11.4%	15.0%	15.0%	15.0%	15.0%
AFUDC % to Net Profit	13.2%	11.9%	7.6%	6.8%	6.0%	6.6%	7.7%	8.0%	7.9%	8.0%	8.0%	8.0%	6.0%
Long-Term Debt Ratio	52.8%	61.5%	64.5%	62.0%	60.1%	61.5%	64.0%	63.0%	65.6%	64.0%	64.0%	64.0%	63.0%
Common Equity Ratio	44.0%	35.7%	35.0%	37.6%	39.5%	38.1%	35.6%	36.5%	37.6%	36.0%	36.0%	36.0%	37.0%
Total Capital ($mill)	46788	69359	68953	65750	69594	73336	78285	80558	83654	85000	87500	90000	93500
Net Plant ($mill)	61114	78446	79872	80797	83080	87634	91108	94570	99844	100000	100500	100800	110000
Return on Total Cap'l	6.6%	4.9%	5.9%	5.9%	6.0%	5.9%	5.8%	5.5%	4.6%	5.5%	5.5%	5.5%	6.5%
Return on Shr. Equity	12.0%	10.3%	13.3%	12.4%	12.1%	12.3%	13.0%	12.5%	12.6%	13.0%	13.0%	13.0%	14.5%
Return on Com Equity E	12.6%	11.0%	13.4%	12.5%	12.1%	12.4%	13.1%	12.5%	12.6%	13.0%	13.0%	13.0%	14.5%
Retained to Com Eq	3.1%	2.5%	3.9%	2.6%	2.8%	2.8%	3.1%	3.0%	3.2%	3.5%	3.5%	3.5%	5.0%
All Div'ds to Net Prof	76%	78%	72%	79%	77%	78%	76%	78%	77%	77%	77%	77%	67%

ELECTRIC OPERATING STATISTICS
	2021	2022	2023
% Change Retail Sales (KWH)	-5.3	+2.0	NA
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Yearend (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+1.3	+1.5	NA

Fixed Charge Cov. (%)	270	275	NA

ANNUAL RATES
of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '28-'30
Revenues	- -	.5%	6.0%
"Cash Flow"	4.0%	4.5%	5.0%
Earnings	3.0%	3.0%	6.5%
Dividends	3.5%	3.5%	3.5%
Book Value	3.0%	2.5%	3.5%

QUARTERLY REVENUES (mill.)
Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2022	6648	7206	8378	7047	29279
2023	6480	5748	6980	6045	25253
2024	6646	6463	7274	6067	26450
2025	7000	6500	7300	6400	27200
2026	7250	6700	7500	6800	28250

EARNINGS PER SHARE A
Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2022	.97	1.07	1.31	.26	3.61
2023	.79	.79	1.42	.64	3.64
2024	1.03	1.10	1.43	.49	4.05
2025	1.10	1.10	1.50	.60	4.30
2026	1.15	1.20	1.55	.70	4.60

QUARTERLY DIVIDENDS PAID B ■
Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	.64	.66	.66	.66	2.62
2022	.66	.68	.68	.68	2.70
2023	.68	.70	.70	.70	2.78
2024	.70	.72	.72	.72	2.86
2025					

BUSINESS: The Southern Company, through its subsidiaries, supplies electricity to 4.4 mill. customers in GA, AL, and MS. Also has a competitive generation business. Acq'd AGL Resources (renamed Southern Company Gas, 4.4 mill. customers in GA, NJ, IL, VA, & TN) 7/16. Sold Gulf Power 1/19. Electric revenue breakdown: residential, 43%; commercial, 35%; industrial, 21%; other, 1%. Generating sources: gas, 51%; coal, 19%; nuclear, 10%; other, 11%; purchased, 9%. Fuel costs: 26% of revenues. '23 reported deprec. rates (utility): 2.7%-3.4%. Has 27,300 employees. President and CEO: Chris Womack. Incorporated.: Delaware. Address: 30 Ivan Allen Jr. Blvd., N.W., Atlanta, Georgia 30308. Telephone: 404-506-0747. Internet: www.southerncompany.com.

We look for Southern Company's earnings to advance moderately in 2025. Our profit estimate this year remains unchanged at $4.30 per share, implying 6% growth, which is in line with the utility's long-term 5%-7% target. The recent completion of the Vogtle Nuclear Construction Project should start to benefit results in 2025 and beyond. The Vogtle plant stands to deliver 2,200 megawatts of reliable, carbon free energy for decades, and is the largest generator of clean energy in the U.S. In turn, Southern is increasingly well positioned to take advantage of the clean energy transition and elevated power demand due to technological advancements.

We have introduced our top- and bottom-line estimates for 2026. We think the company will post similar growth in 2026, within management's long-term targets. The demand for nuclear power expansion and electricity should remain elevated for the foreseeable future. And, Southern continues to expect that the U.S. will need to install more than 10 gigawatts of nuclear power to meet increased electricity demand in the coming years. Accordingly, we look for earnings of $4.60 per share and revenues of $28.25 billion.

These shares have fallen a bit in value since our early November report. The stock is down more than 5% over that interim, partly due to weak projected year over year earnings comparisons as well as increased energy transition costs. Still, Southern shares are up more than 25% over the past year, along with the sharp rise in demand for nuclear power expansion and electricity.

This issue is best suited for conservative, income-oriented investors. Indeed, the utility pays a solid dividend, which remains its most notable feature, and is ranked Above Average (2) for Safety. But, many of its peers pay even higher dividends. What's more, intermediate- and long-term capital appreciation potential is weak at this juncture. After rolling out our estimates to 2028-2030, the recent quotation is already well within our new range of $75-$105. The recent price also stands above the midpoint of our 18-month Target Price Range.

Zachary Hodgkinson   February 7, 2025

(A) Diluted EPS. Excl. nonrec. gain (losses): '09, (25¢); '13, (83¢); '14, (59¢); '15, (25¢); '16, (28¢); '17, ($2.37); '18, (78¢); '19, $1.30; '20, (17¢); '21, (54¢). Next earnings report due in May. (B) Div'ds paid in early Mar., June, Sept., and Dec. ■ Div'd reinvestment plan avail. (C) Incl. def'd charges. In '23: $17.35/sh. (D) In mill. (E) Rate base: AL, MS, fair value; FL, GA, orig. cost. Allowed return on common eq. (blended): 12.5%; earned on avg. com. eq., '21: 12.8%. Regulatory Climate: GA, AL Above Average; MS, FL Average.

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

TXNM ENERGY NYSE-TXNM

| RECENT PRICE | 47.18 | P/E RATIO | 17.1 | (Trailing: 18.0 / Median: 19.0) | RELATIVE P/E RATIO | 0.94 | DIV'D YLD | 3.5% | VALUE LINE |

TIMELINESS 3 Raised 11/29/24
SAFETY 2 Raised 1/17/25
TECHNICAL 3 Lowered 11/29/24
BETA .90 (1.00 = Market)

| | High: | 24.5 | 31.6 | 31.2 | 36.2 | 46.0 | 45.3 | 53.0 | 56.1 | 50.1 | 49.3 | 49.6 | 50.3 |
| | Low: | 20.1 | 23.5 | 24.4 | 29.2 | 33.3 | 33.8 | 39.7 | 27.1 | 43.8 | 43.4 | 41.4 | 34.6 |

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

18-Month Target Price Range
Low-High   Midpoint (% to Mid)
$33-$49 $41 (-5%)

2027-29 PROJECTIONS
	Price	Gain	Ann'l Total Return
High	65	(+40%)	11%
Low	45	(-5%)	3%

Institutional Decisions
	1Q2024	2Q2024	3Q2024
to Buy	152	156	153
to Sell	163	127	141
Hld's(000)	84833	87863	101664

Percent shares traded: 24 / 16 / 8

Target Price Range 2027 2028 2029

% TOT. RETURN 12/24
	THIS STOCK	VL ARITH.* INDEX
1 yr.	25.3	13.6
3 yr.	21.5	14.7
5 yr.	14.6	70.9

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
22.65	19.01	19.31	21.35	16.85	17.42	18.03	18.07	17.11	18.14	18.04	18.30	17.74	20.74	26.21	21.50	21.85	22.85	Revenues per sh	27.35
1.76	2.32	2.67	3.18	3.39	3.52	4.09	4.28	4.51	5.30	5.47	5.95	5.80	6.19	6.67	6.62	6.85	7.25	"Cash Flow" per sh	8.65
.11	.58	.87	1.08	1.31	1.41	1.45	1.48	1.46	1.92	2.00	2.16	2.28	2.45	2.69	2.82	2.75	2.85	Earnings per sh A	3.35
.61	.50	.50	.50	.58	.68	.76	.82	.90	.99	1.09	1.18	1.25	1.33	1.41	1.49	1.57	1.65	Div'd Decl'd per sh B ■	1.94
3.99	3.32	3.25	4.10	3.88	4.37	5.78	7.01	7.53	6.28	6.29	7.74	7.91	10.89	10.63	11.93	12.90	13.85	Cap'l Spending per sh	13.50
18.89	18.90	17.60	19.62	20.05	20.87	22.39	20.78	21.04	21.28	21.20	21.08	23.88	25.25	25.54	26.04	27.40	28.80	Book Value per sh C	33.50
86.53	86.67	86.67	79.65	79.65	79.65	79.65	79.65	79.65	79.65	79.65	79.65	85.83	85.83	85.83	90.20	91.00	92.00	Common Shs Outst'g D	95.00
NMF	18.1	14.0	14.5	15.0	16.1	18.7	18.7	22.4	20.4	19.4	22.2	19.6	19.9	17.4	16.3	14.7		Avg Ann'l P/E Ratio	16.5
NMF	1.21	.89	.91	.95	.90	.98	.94	1.18	1.03	1.05	1.18	1.01	1.08	1.01	.91	.81		Relative P/E Ratio	.90
4.9%	4.8%	4.1%	3.2%	3.0%	3.0%	2.8%	3.0%	2.8%	2.5%	2.8%	2.5%	2.8%	2.7%	3.0%	3.2%	3.9%		Avg Ann'l Div'd Yield	3.5%

CAPITAL STRUCTURE as of 9/30/24
Total Debt $5381.7 mill. **Due in 5 Yrs** $2177.6 mill.
LT Debt $4511.2 mill. **LT Interest** $195.0 mill.
(Total Interest Coverage: 2.3x)

Leases, Uncapitalized Annual rentals $12.3 mill.

Pension Assets-12/23 $448.6 mill.
Oblig. $461.2 mill.

Pfd Stock $11.5 mill. **Pfd Div'd** $.5 mill.

Common Stock 90,200,384 shs.
as of 10/25/24
MARKET CAP: $4.3 billion (Mid Cap)

1435.9	1439.1	1363.0	1445.0	1436.6	1457.6	1523.0	1779.9	2249.6	1939.2	1990	2100	Revenues ($mill)	2600
116.8	118.8	117.4	154.4	160.6	173.1	183.4	211.6	232.0	244.1	250	265	Net Profit ($mill)	320
34.8%	36.9%	32.4%	33.0%	12.9%	8.1%	9.5%	13.4%	14.6%	13.6%	14.5%	15.0%	Income Tax Rate	16.0%
10.7%	17.0%	11.0%	11.9%	12.1%	9.8%	8.9%	8.6%	9.0%	12.3%	12.0%	13.0%	AFUDC % to Net Profit	13.0%
47.8%	54.1%	55.7%	56.1%	61.1%	59.8%	56.9%	61.8%	63.9%	64.2%	66.0%	67.5%	Long-Term Debt Ratio	69.0%
51.9%	45.5%	44.0%	43.6%	38.6%	39.9%	42.9%	38.0%	36.0%	35.6%	33.5%	32.0%	Common Equity Ratio	30.5%
3437.1	3633.3	3806.8	3887.5	4370.0	4207.7	4780.6	5698.6	6096.1	6602.3	7400	8250	Total Capital ($mill)	10400
4270.0	4535.4	4904.7	4980.2	5234.6	5466.0	5965.1	6752.9	6972.8	7609.9	8400	9300	Net Plant ($mill)	11500
5.1%	4.8%	4.7%	5.3%	5.0%	5.5%	4.9%	4.6%	4.9%	5.0%	4.5%	4.5%	Return on Total Cap'l	4.5%
6.5%	7.1%	7.0%	9.0%	9.4%	10.2%	8.9%	9.7%	10.5%	10.3%	10.0%	10.0%	Return on Shr. Equity	10.0%
6.5%	7.1%	7.0%	9.1%	9.5%	10.3%	8.9%	9.7%	10.6%	10.4%	10.0%	10.0%	Return on Com Equity E	10.0%
3.2%	3.3%	2.8%	4.5%	4.5%	4.8%	4.1%	4.6%	5.1%	5.0%	4.0%	4.0%	Retained to Com Eq	4.5%
51%	54%	61%	51%	53%	54%	54%	53%	52%	52%	57%	58%	All Div'ds to Net Prof	58%

ELECTRIC OPERATING STATISTICS
	2021	2022	2023
% Change Retail Sales (KWH)	1.0	5.2	1.0
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	1968	2139	2162
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	1.2	1.0	1.0

| Fixed Charge Cov. (%) | 317 | 289 | 230 |

ANNUAL RATES of change (per sh)
	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	2.0%	5.0%	3.0%
"Cash Flow"	7.0%	5.0%	5.0%
Earnings	7.5%	8.0%	4.0%
Dividends	9.0%	7.0%	5.5%
Book Value	2.5%	4.0%	4.5%

QUARTERLY REVENUES ($ mill.)
Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	364.7	426.5	554.6	434.1	1779.9
2022	444.1	499.7	729.9	575.9	2249.6
2023	544.1	477.2	505.9	412.0	1939.2
2024	436.9	488.1	569.3	495.7	1990
2025	475	510	590	525	2100

EARNINGS PER SHARE A
Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	.32	.55	1.37	.21	2.45
2022	.50	.57	1.46	.15	2.69
2023	.55	.55	1.54	.18	2.82
2024	.41	.60	1.43	.31	2.75
2025	.42	.60	1.50	.33	2.85

QUARTERLY DIVIDENDS PAID B ■
Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	.3275	.3275	.3275	.3275	1.31
2022	.3475	.3475	.3475	.3475	1.39
2023	.3675	.3675	.3675	.3675	1.47
2024	.3875	.3875	.3875	.3875	1.55
2025	.4075				

BUSINESS: TXNM Energy, Inc. (formerly PNM Resources) is a holding company with two regulated electric utilities. Public Service Company of New Mexico (PNM) serves about 550,000 customers in north central New Mexico, including Albuquerque and Santa Fe. Texas-New Mexico Power Company (TNMP) transmits and distributes power to more than 270,000 homes and businesses in Texas. Electric revenue: residential, 32%; commercial, 28%; indust'l, 7%; other, 33%. Fuel costs: 46% of revenues in 2023; reported depreciation rates: 2.67%-7.64%. Has about 1,600 employees. Chairman and CEO: Patricia K. Collawn. Incorporated: New Mexico. Address: 414 Silver Ave. SW, Albuquerque, New Mexico 87102-3289. Telephone: 505-241-2700. Internet: www.txnmenergy.com.

Last year was an interesting period of transition for TXNM Energy. From the start of 2024 through mid-year, this issue badly underperformed its peer group, with the share price dropping nearly 15% in the wake of the failed merger with Avangrid, which pulled the plug on its $50.30-per-share cash offer. That situation had dragged on since October of 2020, before Avangrid's parent company, the Spanish multinational Iberdrola, lost patience with the process. Oddly enough, it was Avangrid that ended up going private, as Iberdrola recently bought out the minority shareholders. Perhaps to put that saga in the rearview mirror, PNM Resources was rebranded as TXNM Energy. As management explains it, the shift was made to better reflect the changing dynamics of the company, where the Lewisville-Texas based TNMP subsidiary now makes up 40% of the holding company's rate base, and is its engine of growth. It's fair to ask, "what's in a name?" Yet, the tactic has seemingly worked. From its June low, the issue rallied 38% through the close of 2024 and has been one of the best performing utility stocks of late.

Longer-term prospects here appear decent relative to the electric utility peer group. The Public Service Company of New Mexico (PNM) subsidiary is suffering from a poor outcome in the latest general rate case decision, which was handed down about a year ago. On the positive side, PNM's state regulators did green light the utility's intermediate-term resources plan, which should get the New Mexico rate base growing again. Meanwhile, TNMP is expected to see nearly 13% annual rate-base growth for the 2024-2028 stretch, driven by above-average demographic trends and a vibrant Texas economy. For its part, leadership says that it is targeting 6%-7% earning growth over the 2024 to 2028 stretch, using the midpoint of its 2024 initial profit outlook of $2.70 per share as the starting point. We think that's a little aggressive and would be content if the company met our 5.5% annual share-earnings projection. **This equity is not timely.** Annual total return prospects don't stand out either at the recent valuation. Moreover, its yield is 20 basis points below the peer median.

Anthony J. Glennon   January 17, 2025

(A) Dil. EPS. Excl. nonrec. gain/(loss): '08, ($3.77); '10, ($1.36); '11, 88¢; '13, (16¢); '15, ($1.28); '17, (92¢); '18, (93¢); '19, ($1.19); '20, (13¢); '21, (18¢); '22, (72¢); '23, ($1.80). Excl. disc. op. gains: '08, 42¢; '09, 78¢. Next eqs. report due early Feb. (B) Div'ds paid mid-Feb., May, Aug., & Nov. ■ Div'd reinv. plan avail. (C) Incl. def. charges/other intang. In '23: $15.45/sh. (D) In mill. (E) Rate base: net orig. cost. Rate allowed on com. eq. in NM in '23: 9.26%; in TX in '18: 9.65%; Regulatory Climate: NM, Below Average; TX, Average.

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

XCEL ENERGY NDQ-XEL

RECENT PRICE	65.14	P/E RATIO	17.7 (Trailing: 18.8 / Median: 20.0)
RELATIVE P/E RATIO	0.98	DIV'D YLD	3.5%
			VALUE LINE

TIMELINESS	4	Lowered 10/11/24
SAFETY	2	Lowered 1/19/24
TECHNICAL	1	Raised 1/17/25
BETA .85 (1.00 = Market)		

| | High: | 31.8 | 37.6 | 38.3 | 45.4 | 52.2 | 54.1 | 66.1 | 76.4 | 72.9 | 77.7 | 73.0 | 73.4 |
| | Low: | 26.8 | 27.3 | 31.8 | 35.2 | 40.0 | 41.5 | 47.7 | 46.6 | 57.2 | 56.9 | 53.7 | 46.8 |

Target Price Range 2027 2028 2029

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

18-Month Target Price Range
Low-High   Midpoint (% to Mid)
$54-$84 $69 (10%)

2027-29 PROJECTIONS
	Price	Gain	Ann'l Total Return
High	90	(+40%)	11%
Low	70	(+5%)	6%

Institutional Decisions
	1Q2024	2Q2024	3Q2024
to Buy	433	467	518
to Sell	502	414	408
Hld's(000)	437447	437414	503378

Percent shares traded 30 20 10

% TOT. RETURN 12/24
	THIS STOCK	VL ARITH.* INDEX
1 yr.	15.2	13.6
3 yr.	12.0	14.7
5 yr.	26.0	70.9

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
24.69	21.08	21.38	21.90	20.76	21.92	23.11	21.72	21.90	22.46	22.44	21.98	21.45	24.69	27.86	25.60	24.55	27.05	Revenues per sh	31.10
3.50	3.48	3.51	3.79	4.00	4.10	4.28	4.56	5.04	5.47	5.92	6.25	6.61	7.08	7.81	7.96	8.40	9.10	"Cash Flow" per sh	10.95
1.46	1.49	1.56	1.72	1.85	1.91	2.03	2.10	2.21	2.30	2.47	2.64	2.79	2.96	3.17	3.35	3.55	3.80	Earnings per sh A	4.55
.94	.97	1.00	1.03	1.07	1.11	1.20	1.28	1.36	1.44	1.52	1.62	1.72	1.83	1.95	2.08	2.19	2.30	Div'd Decl'd per sh B ■ †	2.74
4.66	3.91	4.60	4.53	5.27	6.82	6.33	7.26	6.42	6.54	7.70	8.05	9.99	7.80	8.44	10.55	13.00	15.00	Cap'l Spending per sh	13.00
15.35	15.92	16.76	17.44	18.19	19.21	20.20	20.89	21.73	22.56	23.78	25.24	27.12	28.70	30.34	31.74	34.20	36.00	Book Value per sh C	41.90
453.79	457.51	482.33	486.49	487.96	497.97	505.73	507.54	507.22	507.76	514.04	524.54	537.44	544.03	549.58	554.94	575.00	580.00	Common Shs Outst'g D	595.00
13.7	12.7	14.1	14.2	14.8	15.0	15.4	16.5	18.5	20.2	18.9	22.3	23.9	22.5	22.2	19.0	16.8		Avg Ann'l P/E Ratio	17.5
.82	.85	.90	.89	.94	.84	.81	.83	.97	1.02	1.02	1.19	1.23	1.22	1.28	1.06	.93		Relative P/E Ratio	.95
4.7%	5.1%	4.5%	4.2%	3.9%	3.9%	3.8%	3.7%	3.3%	3.1%	3.3%	2.7%	2.6%	2.8%	2.8%	3.3%	3.7%		Avg Ann'l Div'd Yield	3.4%

CAPITAL STRUCTURE as of 9/30/24
Total Debt $28670 mill. Due in 5 Yrs $3790 mill.
LT Debt $27471 mill.   LT Interest $1150 mill.
Incl. $218 mill. finance leases.
(Total Interest Coverage: 2.7x)

Leases, Uncapitalized Annual rentals $277 mill.
Pension Assets-12/23 $2690 mill.
    Oblig. $2943 mill.

Pfd Stock None

Common Stock 574,241,745 shs.
as of 10/28/24
MARKET CAP: $37.4 billion (Large Cap)

	2008	2009	2010	2011	2012	2013			
	11686	11024	11107	11404	11537	11529	11526	13431	15310	14206	14120	15700	Revenues ($mill)	18500

11686	11024	11107	11404	11537	11529	11526	13431	15310	14206	14120	15700	Revenues ($mill)	18500
1021.3	1063.6	1123.4	1171.0	1261.0	1372.0	1473.0	1597.0	1736.0	1851.0	1995	2200	Net Profit ($mill)	2700
33.9%	35.8%	34.1%	30.7%	12.6%	8.5%	- -	- -	- -	- -	NMF	NMF	Income Tax Rate	NMF
12.5%	7.7%	7.8%	9.4%	12.4%	8.3%	10.7%	6.2%	5.9%	7.7%	10.0%	9.0%	AFUDC % to Net Profit	9.0%
53.0%	54.1%	56.3%	55.9%	56.4%	56.8%	57.4%	58.2%	57.8%	58.6%	58.0%	61.0%	Long-Term Debt Ratio	61.0%
47.0%	45.9%	43.7%	44.1%	43.6%	43.2%	42.6%	41.8%	42.2%	41.4%	42.0%	39.0%	Common Equity Ratio	39.0%
21714	23092	25216	25975	28025	30646	34220	37391	39488	42529	47100	53200	Total Capital ($mill)	64225
28757	31206	32842	34329	36944	39483	42950	45457	48253	51642	56225	62450	Net Plant ($mill)	74050
6.0%	5.8%	5.7%	5.8%	5.7%	5.6%	5.4%	5.3%	5.5%	5.4%	5.5%	5.0%	Return on Total Cap'l	5.5%
10.0%	10.0%	10.2%	10.2%	10.3%	10.4%	10.1%	10.2%	10.4%	10.5%	10.0%	10.5%	Return on Shr. Equity	11.0%
10.0%	10.0%	10.2%	10.2%	10.3%	10.4%	10.1%	10.2%	10.4%	10.5%	10.0%	10.5%	Return on Com Equity E	11.0%
4.5%	4.3%	4.0%	3.9%	4.3%	4.4%	4.2%	4.2%	4.3%	4.3%	4.0%	4.0%	Retained to Com Eq	4.5%
55%	57%	61%	62%	58%	58%	58%	59%	58%	59%	62%	60%	All Div'ds to Net Prof	60%

ELECTRIC OPERATING STATISTICS
	2021	2022	2023
% Change Retail Sales (KWH)	+1.4	+1.2	-1.6
Resid'l Revs. per KWH (¢)	12.94	13.41	13.80
C & I Revs. per KWH (¢)	8.73	9.02	8.82
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	19849	20346	20512
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	NA	NA	NA

Fixed Charge Cov. (%)	262	255	245

ANNUAL RATES
of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	2.0%	3.0%	3.0%
"Cash Flow"	7.0%	7.0%	6.0%
Earnings	5.5%	6.5%	6.5%
Dividends	6.0%	6.5%	6.0%
Book Value	5.0%	6.0%	5.5%

QUARTERLY REVENUES ($ mill.)
Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	3541	3068	3467	3355	13431
2022	3751	3424	4082	4053	15310
2023	4080	3022	3662	3442	14206
2024	3649	3028	3644	3799	14120
2025	4100	3400	4125	4075	15700

EARNINGS PER SHARE A
Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	.67	.58	1.13	.58	2.96
2022	.70	.60	1.18	.69	3.17
2023	.76	.52	1.23	.83	3.35
2024	.88	.54	1.25	.88	3.55
2025	.90	.65	1.35	.90	3.80

QUARTERLY DIVIDENDS PAID B ■ †
Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	.43	.4575	.4575	.4575	1.80
2022	.4575	.4875	.4875	.4875	1.92
2023	.4875	.52	.52	.52	2.05
2024	.52	.5475	.5475	.5475	2.16
2025	.5475				

BUSINESS: Xcel Energy Inc. is the parent of Northern States Power Company (NSP), which supplies electricity to MN, WI, ND, SD & MI & gas to MN, WI, ND & MI; Public Service Company of Colorado (PSCo), which supplies electricity & gas to CO; & Southwestern Public Service Company (SPS), which supplies electricity to TX and NM. Customers: 3.8 mill. electric, 2.2 mill. gas. Electric revenues: resid'l, 31%; comm'l & ind'l, 50%; other, 19%. Purchases 34% of power, owns 66%. Total electric mix: wind, 29%; gas, 23%; coal, 13%; nuclear, 24%; solar/other, 11%. Fuel cost: 40% of revenues. '23 deprec. rate: 3.6%. Employs 11,311. Chrmn., President, and CEO: Robert Frenzel. Inc.: MN. Addr.: 414 Nicollet Mall, Minneapolis, MN 55401. Tel.: 612-330-5500. Int.: www.xcelenergy.com.

Xcel Energy stock has recovered nicely from the sharp sell-off of March, 2024, which coincided with Texas wildfires caused by downed wires. Even with the most recent industry correction, the share price is up nearly 40% from its 2024 nadir. The overreaction came at a time when the complete damages could not yet be assessed and the fires were still raging. It also came when the company was already mired in an ongoing investigation into the causes of the late 2021 Marshall fire in Colorado, with estimated damages of $2 billion. Subsequently, it has been found that physical damages in the Texas panhandle are likely to be around half of the company's $500 million of insurance per incident. The company has already settled nearly 50% of the cases and Texas law typically doesn't support major punitive damages.

Meanwhile, hundreds of Colorado wildfire claims have been combined into one case regarding liability, tentatively schedule for September of this year. Colorado law caps punitive damages at three times actual damages, so there is the potential for billions in payouts. But, there is also a fairly high hurdle for proving negligence in Colorado, which differs markedly from California law, for instance. Net of insurance, we'd be surprised if Xcel was liable for more than $1.5 billion, which is a manageable amount.

The company shored up its balance sheet with a substantial equity offering late last year. About 18 million shares were priced at $65.50 each, raising $1.2 billion. That the company was able to fetch a valuation of 18.5 times expected 2024 adjusted earnings of $3.55 per share is a testament to the Street's confidence in Xcel's ongoing business prospects. The company's diversification across several major service areas affords it financial resources few in the electric utility industry can match. Xcel always seems to have its ducks in a row in its rate cases and resource plans. It will likely find increased avenues of investment via mitigation work in response to these wildfire tragedies.

This stock is untimely. We'd want to see about a 10% pullback in the share price before comfortably recommending XEL to long-term utility investors.
Anthony J. Glennon   *January 17, 2025*

(A) Diluted EPS. Excl. nonrec. gain/(losses): '10, 5¢; '15, (16¢); '17, (5¢); '23, (14¢); gain/(loss) on discontinued ops.: '09, (1¢); '10, 1¢. Qtly. EPS may not sum to full yr. due to rounding. Next egs. report due Feb. 6th.
(B) Div'ds typically paid mid-Jan., Apr., July, and Oct. ■ Div'd reinvestment plan available. † Shareholder investment plan available.
(C) Incl. intangibles. In '23: $2798 mill., $5.04/sh. (D) In mill. (E) Rate base: Varies. Rate allowed on common equity (blended): 9.6%. Regulatory Climate: Average.

Company's Financial Strength	A
Stock's Price Stability	95
Price Growth Persistence	55
Earnings Predictability	100

Kentucky Utilities Company / Louisville Gas & Electric Company
Indicated Common Equity Cost Rate
Through Use of a Risk Premium Model
Using an Adjusted Total Market Approach

Line No.		Proxy Group of Seven Natural Gas Distribution Companies	Proxy Group of Seven Natural Gas Distribution Companies (excl. PRPM)	Proxy Group of Fifteen Electric Companies	Proxy Group of Fifteen Electric Companies (excl. PRPM)
1.	Prospective Yield on Aaa Rated Corporate Bonds (1)	5.35 %	5.35 %	5.35 %	5.35 %
2.	Adjustment to Reflect Yield Spread Between Aaa Rated Corporate Bonds and A2 Rated Public Utility Bonds (2)	0.38	0.38	0.38	0.38
3.	Adjusted Prospective Yield on A2 Rated Public Utility Bonds	5.73 %	5.73	5.73 %	5.73
4.	Adjustment to Reflect Bond Rating Difference of Proxy Group	0.07 (3)	0.07	0.13 (4)	0.13
5.	Adjusted Bond Yield	5.80 %	5.80	5.86 %	5.86
6.	Equity Risk Premium (5)	5.06	5.01	4.93	4.88
7.	Risk Premium Derived Common Equity Cost Rate	10.86 %	10.81 %	10.79	10.74 %

Notes: (1) Consensus forecast of Moody's Aaa Rated Corporate bonds from Blue Chip Financial Forecasts (see pages 7 and 8 of this Exhibit).

(2) The average yield spread of A2 rated public utility bonds over Aaa rated corporate bonds of 0.38% from page 2 of this Exhibit.

(3) Adjustment to reflect the A3 Moody's LT issuer rating of the Proxy Group of Seven Natural Gas Distribution Companies as shown on page 3 of this Exhibit. The 0.07% upward adjustment is derived by taking 1/3 of the spread between A2 and Baa2 Public Utility Bonds (1/3 * 0.20% = 0.07%) as derived from page 2 of this Exhibit.

(4) Adjustment to reflect the Baa1 Moody's LT issuer rating of the Proxy Group of Fifteen Electric Companies as shown on page 3 of this Exhibit. The 0.13% upward adjustment is derived by taking 2/3 of the spread between A2 and Baa2 Public Utility Bonds (2/3 * 0.20% = 0.13%) as derived from page 2 of this Exhibit.

(5) From page 5 of this Exhibit.

Kentucky Utilities Company / Louisville Gas & Electric Company
Interest Rates and Bond Spreads for
Moody's Corporate and Public Utility Bonds

Selected Bond Yields

	[1]	[2]	[3]
	Aaa Rated Corporate Bond	A2 Rated Public Utility Bond	Baa2 Rated Public Utility Bond
Feb-2025	5.32 %	5.73 %	5.90 %
Jan-2025	5.46	5.81	6.05
Dec-2024	5.20	5.58	5.77
Average	5.33 %	5.71 %	5.91 %

Selected Bond Spreads

A2 Rated Public Utility Bonds Over Aaa Rated Corporate Bonds:

0.38 % (1)

Baa2 Rated Public Utility Bonds Over A2 Rated Public Utility Bonds:

0.20 % (2)

Notes:
(1) Column [2] - Column [1].
(2) Column [3] - Column [2].

Source of Information:
  Bloomberg Professional Services

Kentucky Utilities Company / Louisville Gas & Electric Company
Comparison of Long-Term Issuer Ratings for the
Proxy Group of Forty-Nine Non-Price Regulated Companies

	Moody's		Standard & Poor's	
	Long-Term Issuer Rating		Long-Term Issuer Rating	
	February 2025		February 2025	
Proxy Group of Seven Natural Gas Distribution Companies	Long-Term Issuer Rating (1)	Numerical Weighting (2)	Long-Term Issuer Rating (1)	Numerical Weighting (2)
Atmos Energy Corporation	A1	5.0	A-	7.0
New Jersey Resources Corporation	A1	5.0	NR	- -
NiSource Inc.	Baa1	8.0	BBB+	8.0
Northwest Natural Holding Company	Baa1	8.0	A+	5.0
ONE Gas, Inc.	A3	7.0	A-	7.0
Southwest Gas Holding Company	Baa1	8.0	BBB	9.0
Spire Inc.	A1/A2	5.5	BBB+	8.0
Average	A3	6.6	A-	7.3
Louisville Gas & Electric Company	A3	7.0	A-	7.0

Proxy Group of Fifteen Electric Companies	Long-Term Issuer Rating (1)	Numerical Weighting (2)	Long-Term Issuer Rating (1)	Numerical Weighting (2)
Alliant Energy Corporation	Baa1	8.0	A/A-	6.5
Ameren Corporation	A3	7.0	BBB+	8.0
American Electric Power Corporation	Baa1	8.0	BBB+	8.0
Duke Energy Corporation	A3	7.0	BBB+	8.0
Edison International	Baa1	8.0	BBB	9.0
Entergy Corporation	Baa1	8.0	BBB+	8.0
Evergy, Inc.	Baa1	8.0	BBB+	8.0
IDACORP, Inc.	Baa1	8.0	BBB	9.0
North Western Corporation	Baa2	9.0	BBB	9.0
OGE Energy Corporation	A3	7.0	A-	7.0
Pinnacle West Capital Corporation	Baa1	8.0	BBB+	8.0
Portland General Electric Company	A3	7.0	BBB+	8.0
Southern Company	A2/A3	6.5	A-	7.0
TXNM Energy, Inc.	Baa1/Baa2	8.5	BBB+/BBB	8.5
Xcel Energy Inc.	A3	7.0	BBB+	8.0
Average	Baa1	7.7	BBB+	8.0
Kentucky Utilities Company	A3	7.0	A-	7.0
Louisville Gas & Electric Company	A3	7.0	A-	7.0

Notes:
(1) Ratings are that of the average of each company's utility operating subsidiaries.
(2) From page 4 of this Exhibit.

Source Information: Moody's Investors Service
                        Standard & Poor's Global Utilities Rating Service

Numerical Assignment for
Moody's and Standard & Poor's Bond Ratings

Moody's Bond Rating	Numerical Bond Weighting	Standard & Poor's Bond Rating
Aaa	1	AAA
Aa1	2	AA+
Aa2	3	AA
Aa3	4	AA-
A1	5	A+
A2	6	A
A3	7	A-
Baa1	8	BBB+
Baa2	9	BBB
Baa3	10	BBB-
Ba1	11	BB+
Ba2	12	BB
Ba3	13	BB-
B1	14	B+
B2	15	B
B3	16	B-

Kentucky Utilities Company / Louisville Gas & Electric Company
Judgment of Equity Risk Premium for the
Proxy Group of Forty-Nine Non-Price Regulated Companies

Line No.		Proxy Group of Seven Natural Gas Distribution Companies	Proxy Group of Seven Natural Gas Distribution Companies (excl. PRPM)	Proxy Group of Fifteen Electric Companies	Proxy Group of Fifteen Electric Companies (excl. PRPM)
1.	Calculated equity risk premium based on the total market using the beta approach (1)	5.68 %	5.66 %	5.25 %	5.23 %
2.	Mean equity risk premium based on a study using the holding period returns of public utilities with A2 rated bonds (2)	4.76	4.65	4.76	4.65
3.	Predicted Equity Risk Premium Based on Regression Analysis of 848 Fully-Litigated Natural Gas Rate Cases (3)	4.73	4.73	NA	NA
4.	Predicted Equity Risk Premium Based on Regression Analysis of 1,257 Fully-Litigated Electric Rate Cases (4)	NA	NA	4.77	4.77
5.	Average equity risk premium	5.06 %	5.01 %	4.93 %	4.88 %

Notes: (1) From page 6 of this Exhibit.
(2) From page 9 of this Exhibit.
(3) From page 10 of this Exhibit.
(3) From page 11 of this Exhibit.

Kentucky Utilities Company / Louisville Gas & Electric Company
Derivation of Equity Risk Premium Based on the Total Market Approach
Using the Beta for the
Proxy Group of Seven Natural Gas Distribution Companies and Proxy Group of Fifteen Electric Companies

Line No.	Equity Risk Premium Measure	Proxy Group of Seven Natural Gas Distribution Companies	Proxy Group of Seven Natural Gas Distribution Companies(excl. PRPM)	Proxy Group of Fifteen Electric Companies	Proxy Group of Fifteen Electric Companies(excl. PRPM)
1.	Kroll Equity Risk Premium (1)	6.10 %	6.10 %	6.10 %	6.10 %
2.	Regression on Kroll Risk Premium Data (2)	6.82	6.82	6.82	6.82
3.	Kroll Equity Risk Premium based on PRPM (3)	7.32	NA	7.32	NA
4	Equity Risk Premium Based on Value Line Summary and Index (4)	5.85	5.85	5.85	5.85
5.	Equity Risk Premium Based on Bloomberg, Value Line, and S&P Global Market Intelligence S&P 500 Companies (5)	9.88	9.88	9.88	9.88
6.	Conclusion of Equity Risk Premium	7.19 %	7.16 %	7.19 %	7.16 %
7.	Adjusted Beta (6)	0.79	0.79	0.73	0.73
8.	Forecasted Equity Risk Premium	5.68 %	5.66 %	5.25 %	5.23 %

Notes:
(1) Based on the arithmetic mean historical monthly returns on large company common stocks from Kroll Cost of Capital Navigator and Bloomberg Professional Services minus the arithmetic mean monthly yield of Moody's average Aaa and Aa2 corporate bonds from 1928-2024.

(2) This equity risk premium is based on a regression of the monthly equity risk premiums of large company common stocks relative to Moody's average Aaa and Aa2 rated corporate bond yields from 1928-2024 referenced in Note 1 above. Using the equation generated from the regression, an expected equity risk premium is calculated using the average consensus forecast of Aaa corporate bonds of 5.35% (from page 1 of this Exhibit).

(3) The Predictive Risk Premium Model (PRPM) is discussed in the accompanying direct testimony. The Ibbotson equity risk premium based on the PRPM is derived by applying the PRPM to the monthly risk premiums between Ibbotson large company common stock monthly returns and average Aaa and Aa corporate monthly bond yields, from January 1928 through February 2025.

(4) The equity risk premium based on the Value Line Summary and Index is derived by subtracting the average consensus forecast of Aaa corporate bonds of 5.35% (from page 1 of this Exhibit) from the projected 3-5 year total annual market return of 11.20% (described fully in note 1 on page 2 of Exhibit DWD-5).

(5) Using data from the Bloomberg Professional Services, Value Line, and S&P Global Market Intelligence for the S&P 500 for the S&P 500, an expected total return of 15.23% was derived based upon expected dividend yields as a proxy for income returns and long-term earnings growth estimates as a proxy for capital appreciation. Subtracting the average consensus forecast of Aaa corporate bonds of 5.35% results in an expected equity risk premium of 9.88%.

(6) Average of mean and median beta for each proxy group from page 1 of Exhibit DWD-5.

Sources of Information:
Kroll Cost of Capital Navigator
Industrial Manual and Mergent Bond Record Monthly Update.
Value Line Summary and Index
Blue Chip Financial Forecasts, November 27, 2024 and February 28, 2025
S&P Capital IQ
Bloomberg Professional Services

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

	------------------------------------History------------------------------------							Consensus Forecasts-Quarterly Avg.					
	------Average For Week Ending------				----Average For Month---			*Latest Qtr*	1Q	2Q	3Q	4Q	1Q	2Q
Interest Rates	Feb 21	Feb 14	Feb 7	Jan 31	Jan	Dec	Nov	4Q 2024	2025	2025	2025	2025	2026	2026
Federal Funds Rate	4.33	4.33	4.33	4.33	4.33	4.48	4.64	4.65	4.4	4.3	4.1	4.0	3.9	3.8
Prime Rate	7.50	7.50	7.50	7.50	7.50	7.65	7.81	7.82	7.5	7.4	7.3	7.1	7.0	6.9
SOFR	4.34	4.33	4.34	4.36	4.32	4.53	4.64	4.67	4.3	4.3	4.1	4.0	3.9	3.7
Commercial Paper, 1-mo.	4.32	4.31	4.30	4.30	4.32	4.50	4.62	4.63	4.3	4.3	4.1	4.0	3.9	3.7
Treasury bill, 3-mo.	4.33	4.35	4.34	4.31	4.34	4.39	4.62	4.58	4.3	4.2	4.0	3.9	3.8	3.7
Treasury bill, 6-mo.	4.33	4.32	4.28	4.27	4.26	4.32	4.43	4.40	4.3	4.1	4.0	3.9	3.8	3.7
Treasury bill, 1 yr.	4.20	4.26	4.20	4.15	4.18	4.23	4.33	4.25	4.2	4.1	4.0	3.9	3.8	3.7
Treasury note, 2 yr.	4.26	4.30	4.23	4.19	4.27	4.23	4.26	4.15	4.2	4.1	4.0	3.9	3.9	3.8
Treasury note, 5 yr.	4.34	4.38	4.30	4.33	4.43	4.25	4.23	4.13	4.4	4.3	4.2	4.1	4.1	4.0
Treasury note, 10 yr.	4.50	4.53	4.49	4.55	4.63	4.39	4.36	4.28	4.5	4.5	4.4	4.4	4.3	4.3
Treasury note, 30 yr.	4.74	4.74	4.70	4.78	4.85	4.58	4.54	4.50	4.7	4.7	4.7	4.6	4.6	4.6
Corporate Aaa bond	5.43	5.45	5.41	5.47	5.55	5.29	5.23	5.20	5.5	5.4	5.4	5.4	5.4	5.4
Corporate Baa bond	5.85	5.88	5.84	5.88	5.97	5.71	5.66	5.63	6.2	6.2	6.2	6.2	6.2	6.2
State & Local bonds	4.18	4.19	4.16	4.14	4.18	4.10	4.08	4.08	4.4	4.4	4.4	4.4	4.4	4.4
Home mortgage rate	6.85	6.87	6.89	6.95	6.96	6.72	6.81	6.65	6.9	6.8	6.7	6.6	6.5	6.5
	------------------------------------History------------------------------------								Consensus Forecasts-Quarterly					
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q
Key Assumptions	2023	2023	2023	2023	2024	2024	2024	2024	2025	2025	2025	2025	2026	2026
Fed's AFE $ Index	115.5	114.6	115.0	116.6	115.5	117.3	114.9	117.9	119.9	120.0	119.3	118.5	118.0	117.5
Real GDP	2.8	2.4	4.4	3.2	1.6	3.0	3.1	2.3	2.3	2.0	1.9	1.9	2.0	2.0
GDP Price Index	3.6	1.9	3.2	1.5	3.0	2.5	1.9	2.4	2.7	2.5	2.5	2.5	2.5	2.2
Consumer Price Index	3.7	3.0	3.5	2.8	3.7	2.8	1.4	3.0	3.5	2.7	2.6	2.6	2.6	2.5
PCE Price Index	3.9	2.9	2.7	1.7	3.4	2.5	1.5	2.4	2.8	2.6	2.5	2.5	2.5	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).

US Treasury Yield Curve
Week ended Feb 21, 2025 & Year Ago vs.
1Q 2025 & 2Q 2026
Consensus Forecasts
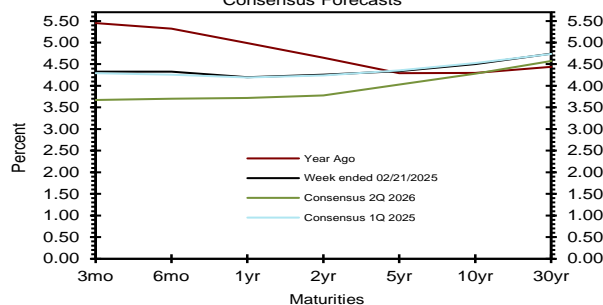
US 3-Mo T-Bills & 10-Yr T-Note Yield
(Quarterly Average)
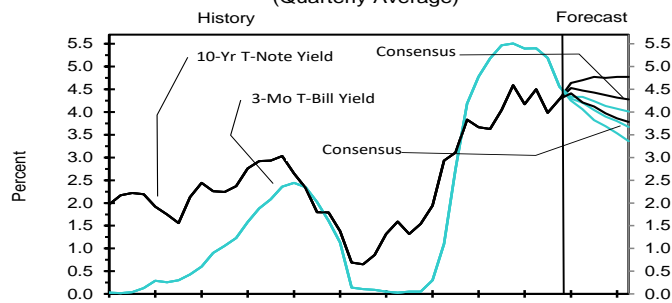
Corporate Bond Spreads
As of week ended Feb 21, 2025
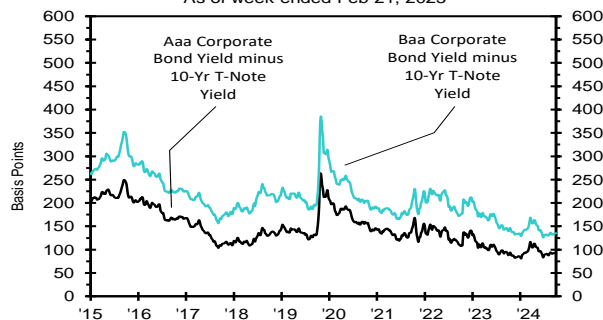
US Treasury Yield Curve
As of week ended Feb 21, 2025
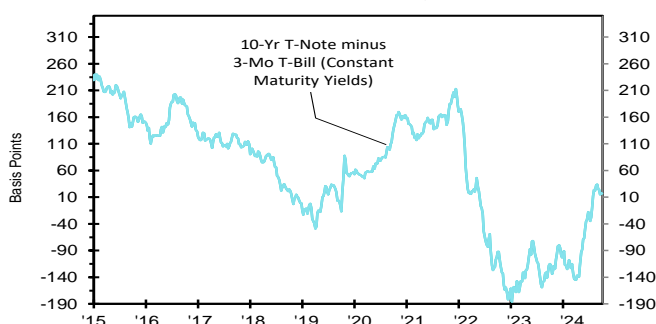
Long-Range Survey:

The table below contains the results of our twice-annual long-range CONSENSUS survey. There are also Top 10 and Bottom 10 averages for each variable. Shown are consensus estimates for the years 2026 through 2030 and averages for the five-year periods 2026-2030 and 2031-2035. Apply these projections cautiously. Few if any 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	2026-2030	2031-2035
1. Federal Funds Rate	**CONSENSUS**	**3.4**	**3.3**	**3.3**	**3.2**	**3.2**	**3.3**	**3.2**
	Top 10 Average	3.7	3.7	3.6	3.7	3.7	3.7	3.6
	Bottom 10 Average	3.0	2.9	2.9	2.9	2.8	2.9	2.9
2. Prime Rate	**CONSENSUS**	**6.5**	**6.4**	**6.4**	**6.4**	**6.3**	**6.4**	**6.3**
	Top 10 Average	6.8	6.8	6.7	6.8	6.7	6.7	6.7
	Bottom 10 Average	6.2	6.1	6.1	6.0	5.9	6.1	5.9
3. SOFR	**CONSENSUS**	**3.3**	**3.3**	**3.3**	**3.3**	**3.3**	**3.3**	**3.3**
	Top 10 Average	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	Bottom 10 Average	3.1	3.0	3.0	2.9	2.9	3.0	2.9
4. Commercial Paper, 1-Mo	**CONSENSUS**	**3.4**	**3.4**	**3.4**	**3.4**	**3.3**	**3.4**	**3.3**
	Top 10 Average	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	Bottom 10 Average	3.2	3.1	3.1	3.0	3.0	3.1	3.0
5. Treasury Bill Yield, 3-Mo	**CONSENSUS**	**3.3**	**3.3**	**3.2**	**3.2**	**3.2**	**3.3**	**3.2**
	Top 10 Average	3.6	3.6	3.5	3.6	3.6	3.6	3.5
	Bottom 10 Average	3.1	3.0	2.9	2.9	2.8	2.9	2.8
6. Treasury Bill Yield, 6-Mo	**CONSENSUS**	**3.4**	**3.3**	**3.3**	**3.2**	**3.2**	**3.3**	**3.2**
	Top 10 Average	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	Bottom 10 Average	3.1	3.0	3.0	2.9	2.8	3.0	2.9
7. Treasury Bill Yield, 1-Yr	**CONSENSUS**	**3.4**	**3.4**	**3.3**	**3.3**	**3.3**	**3.3**	**3.3**
	Top 10 Average	3.7	3.7	3.6	3.6	3.6	3.6	3.6
	Bottom 10 Average	3.2	3.1	3.0	3.0	2.9	3.0	2.9
8. Treasury Note Yield, 2-Yr	**CONSENSUS**	**3.6**	**3.6**	**3.5**	**3.5**	**3.5**	**3.5**	**3.5**
	Top 10 Average	3.9	3.9	3.9	3.9	3.9	3.9	3.9
	Bottom 10 Average	3.3	3.2	3.1	3.1	3.0	3.1	3.0
9. Treasury Note Yield, 5-Yr	**CONSENSUS**	**3.8**	**3.8**	**3.8**	**3.8**	**3.7**	**3.8**	**3.8**
	Top 10 Average	4.2	4.3	4.3	4.3	4.3	4.3	4.3
	Bottom 10 Average	3.4	3.4	3.3	3.3	3.2	3.3	3.2
10. Treasury Note Yield, 10-Yr	**CONSENSUS**	**4.0**	**4.1**	**4.0**	**4.0**	**3.9**	**4.0**	**4.0**
	Top 10 Average	4.5	4.6	4.5	4.5	4.5	4.5	4.5
	Bottom 10 Average	3.6	3.5	3.4	3.4	3.3	3.5	3.4
11. Treasury Bond Yield, 30-Yr	**CONSENSUS**	**4.3**	**4.4**	**4.3**	**4.3**	**4.2**	**4.3**	**4.2**
	Top 10 Average	4.7	4.8	4.8	4.8	4.8	4.8	4.7
	Bottom 10 Average	3.9	3.9	3.8	3.8	3.7	3.8	3.8
12. Corporate Aaa Bond Yield	**CONSENSUS**	**5.1**	**5.2**	**5.2**	**5.1**	**5.1**	**5.2**	**5.1**
	Top 10 Average	5.5	5.7	5.6	5.6	5.6	5.6	5.5
	Bottom 10 Average	4.8	4.8	4.7	4.7	4.6	4.7	4.6
13. Corporate Baa Bond Yield	**CONSENSUS**	**6.0**	**6.1**	**6.0**	**6.0**	**6.0**	**6.0**	**5.9**
	Top 10 Average	6.4	6.6	6.5	6.5	6.4	6.5	6.4
	Bottom 10 Average	5.7	5.7	5.6	5.6	5.5	5.6	5.5
14. State & Local Bonds Yield	**CONSENSUS**	**4.1**	**4.3**	**4.2**	**4.2**	**4.3**	**4.2**	**4.1**
	Top 10 Average	4.5	4.6	4.6	4.6	4.6	4.6	4.6
	Bottom 10 Average	3.8	3.9	3.9	3.9	3.9	3.9	3.6
15. Home Mortgage Rate	**CONSENSUS**	**6.2**	**6.1**	**6.0**	**6.0**	**5.9**	**6.0**	**5.9**
	Top 10 Average	6.6	6.6	6.5	6.4	6.4	6.5	6.4
	Bottom 10 Average	5.7	5.7	5.6	5.5	5.4	5.6	5.4
A. Fed's AFE Nominal $ Index	**CONSENSUS**	**115.5**	**115.0**	**114.5**	**113.9**	**113.2**	**114.4**	**112.6**
	Top 10 Average	117.0	116.3	115.8	115.3	114.8	115.8	114.6
	Bottom 10 Average	113.9	113.6	113.1	112.5	111.8	113.0	110.9

		-------- Year-Over-Year, % Change --------					Five-Year Averages	
		2026	2027	2028	2029	2030	2026-2030	2031-2035
B. Real GDP	**CONSENSUS**	**1.9**	**2.0**	**2.0**	**2.0**	**2.0**	**2.0**	**1.9**
	Top 10 Average	2.2	2.3	2.3	2.2	2.2	2.2	2.2
	Bottom 10 Average	1.7	1.7	1.8	1.7	1.7	1.7	1.7
C. GDP Chained Price Index	**CONSENSUS**	**2.2**	**2.2**	**2.2**	**2.2**	**2.2**	**2.2**	**2.1**
	Top 10 Average	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
D. Consumer Price Index	**CONSENSUS**	**2.4**	**2.3**	**2.2**	**2.2**	**2.2**	**2.2**	**2.2**
	Top 10 Average	2.6	2.5	2.4	2.5	2.4	2.5	2.4
	Bottom 10 Average	2.1	2.0	2.0	2.0	2.0	2.0	2.0
E. PCE Price Index	**CONSENSUS**	**2.2**	**2.2**	**2.1**	**2.1**	**2.1**	**2.2**	**2.1**
	Top 10 Average	2.5	2.3	2.3	2.3	2.3	2.3	2.3
	Bottom 10 Average	2.0	2.0	1.9	2.0	2.0	2.0	2.0

Projected Market Appreciation of the S&P Utility Index
Derivation of Mean Equity Risk Premium Based Studies
Using Holding Period Returns and
Projected Market Appreciation of the S&P Utility Index

Line No.		Implied Equity Risk Premium	Implied Equity Risk Premium (excl. PRPM)
1.	Historical Equity Risk Premium (1)	4.16 %	4.16 %
2.	Regression of Historical Equity Risk Premium (2)	4.80	4.80
3	Forecasted Equity Risk Premium Based on PRPM (3)	5.07	NA
4.	Forecasted Equity Risk Premium based on Projected Total Return on the S&P Utilities Index (Bloomberg, Value Line, and S&P Capital IQ Data) (4)	5.00	5.00
5.	Average Equity Risk Premium (5)	4.76 %	4.65 %

Notes: (1) Based on S&P Public Utility Index monthly total returns and Moody's Public Utility Bond average monthly yields from 1928-2024. Holding period returns are calculated based upon income received (dividends and interest) plus the relative change in the market value of a security over a one-year holding period.

(2) This equity risk premium is based on a regression of the monthly equity risk premiums of the S&P Utility Index relative to Moody's A2 rated public utility bond yields from 1928 - 2024 referenced in note 1 above. Using the equation generated from the regression, an expected equity risk premium is calculated using the prospective A2 rated public utility bond yield of 5.73% (from line 3, page 1 of this Exhibit).

(3) The Predictive Risk Premium Model (PRPM) is applied to the risk premium of the monthly total returns of the S&P Utility Index and the monthly yields on Moody's A2 rated public utility bonds from January 1928 - February 2025.

(4) Using data from Bloomberg, Value Line, and S&P Capital IQ for the S&P Utilities Index, an expected return of 10.73% was derived based on expected dividend yields as a proxy for income returns and long-term growth estimates as a proxy for market appreciation. Subtracting the expected A2 rated public utility bond yield of 5.73%, calculated on line 3 of page 1 of this Exhibit results in an equity risk premium of 5.00%. (10.73% - 5.73% = 5.00%).

(5) Average of lines 1 through 4.

Kentucky Utilities Company / Louisville Gas & Electric Company
Prediction of Equity Risk Premiums Relative to
Moody's A2 Rated Utility Bond Yields - Electric Utilities

y = -0.4805x + 7.4848
R² = 0.8693
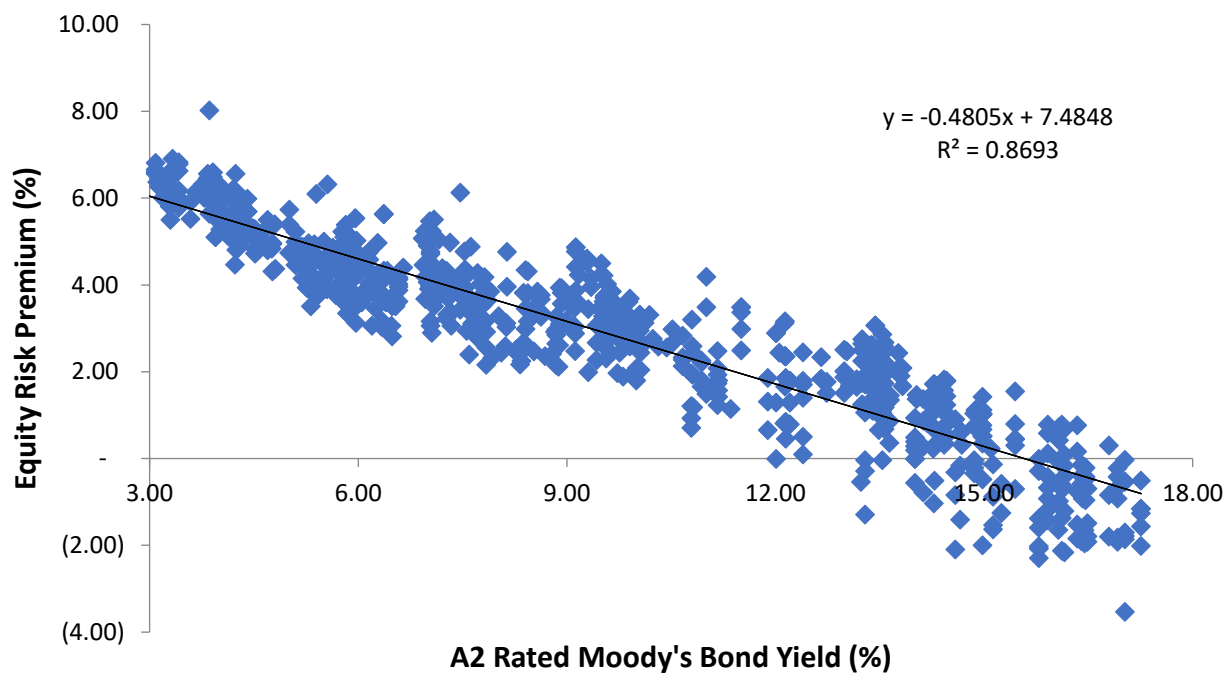
Constant	Slope	Prospective A2 Rated Utility Bond (1)	Equity Risk Premium
7.4848 %	-0.480	5.73 %	4.73 %

Notes:

(1) From line 3 of page 1 of this Schedule.

Source of Information: Regulatory Research Associates.

Kentucky Utilities Company / Louisville Gas & Electric Company
Prediction of Equity Risk Premiums Relative to
Moody's A2 Rated Utility Bond Yields - Electric Utilities

$y = -0.4737x + 7.4891$
$R^2 = 0.8289$

Equity Risk Premium (%) — vertical axis

A2 Rated Moody's Bond Yield (%) — horizontal axis
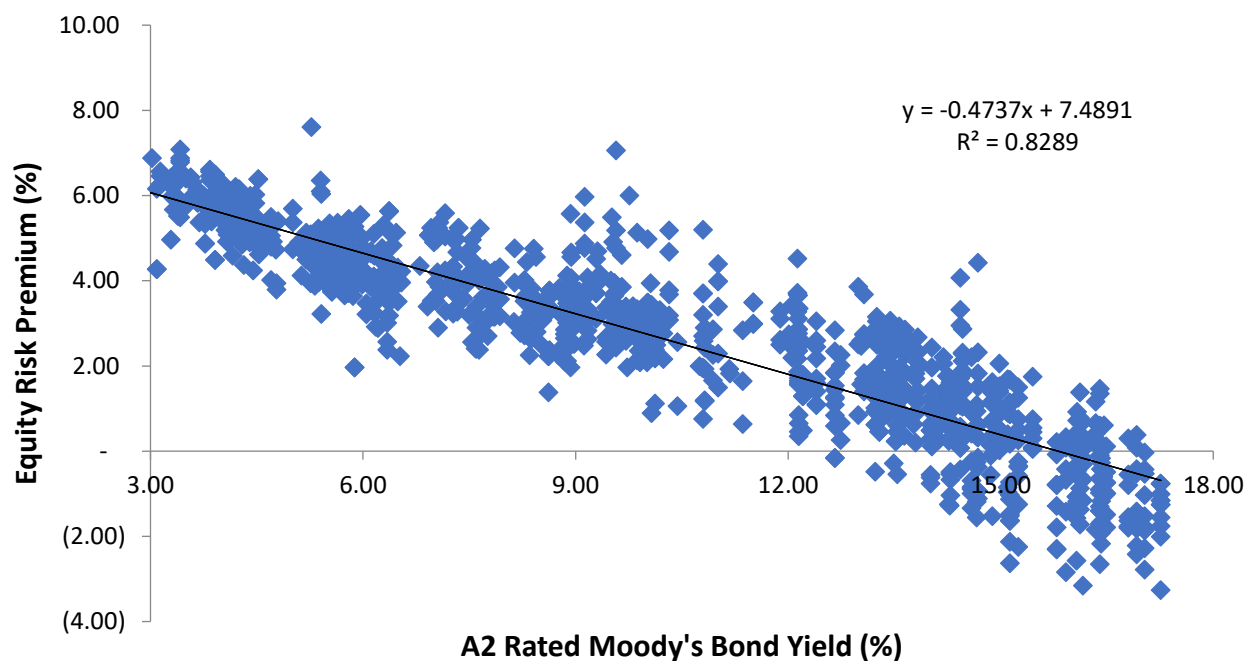
Constant		Slope	Prospective A2 Rated Utility Bond (1)		Equity Risk Premium	
7.4891	%	-0.4737	5.73	%	4.77	%

Notes:

      (1) From line 3 of page 1 of this Schedule.

Source of Information: Regulatory Research Associates.

Kentucky Utilities Company / Louisville Gas & Electric Company
Indicated Common Equity Cost Rate Through Use
of the Traditional Capital Asset Pricing Model (CAPM) and Empirical Capital Asset Pricing Model (ECAPM)

Proxy Group of Seven Natural Gas Distribution Companies

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Proxy Group of Seven Natural Gas Distribution Companies	Value Line Adjusted Beta	Bloomberg Adjusted Beta	Average Beta	Market Risk Premium (1)	Risk-Free Rate (2)	Traditional CAPM Cost Rate	ECAPM Cost Rate	Indicated Common Equity Cost Rate (3)
Atmos Energy Corporation	0.90	0.60	0.75	8.15 %	4.55 %	10.66 %	11.17 %	10.92 %
New Jersey Resources Corporation	1.00	0.60	0.80	8.15	4.55	11.07	11.48	11.27
NiSource Inc.	0.95	0.61	0.78	8.15	4.55	10.91	11.36	11.13
Northwest Natural Holding Company	0.90	0.69	0.80	8.15	4.55	11.07	11.48	11.27
ONE Gas, Inc.	0.85	0.62	0.74	8.15	4.55	10.58	11.11	10.85
Southwest Gas Holding Company	0.95	0.85	0.90	8.15	4.55	11.89	12.09	11.99 (4)
Spire Inc.	0.90	0.65	0.78	8.15	4.55	10.91	11.36	11.13
Mean			0.79			11.01 %	11.44 %	11.10 %
Median			0.78			10.91 %	11.36 %	11.13 %
Average of Mean and Median			0.79			10.96 %	11.40 %	11.12 %

Results Excluding PRPM MRP

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Results Excluding PRPM MRP	Value Line Adjusted Beta	Bloomberg Adjusted Beta	Average Beta	Market Risk Premium (1)	Risk-Free Rate (2)	Traditional CAPM Cost Rate	ECAPM Cost Rate	Indicated Common Equity Cost Rate (3)
Atmos Energy Corporation	0.90	0.60	0.75	8.14 %	4.55 %	10.66 %	11.17 %	10.91 %
New Jersey Resources Corporation	1.00	0.60	0.80	8.14	4.55	11.06	11.47	11.27
NiSource Inc.	0.95	0.61	0.78	8.14	4.55	10.90	11.35	11.13
Northwest Natural Holding Company	0.90	0.69	0.80	8.14	4.55	11.06	11.47	11.27
ONE Gas, Inc.	0.85	0.62	0.74	8.14	4.55	10.58	11.11	10.84
Southwest Gas Holding Company	0.95	0.85	0.90	8.14	4.55	11.88	12.08	11.98 (4)
Spire Inc.	0.90	0.65	0.78	8.14	4.55	10.90	11.35	11.13
Mean			0.79			11.01 %	11.43 %	11.09 %
Median			0.78			10.90 %	11.35 %	11.13 %
Average of Mean and Median			0.79			10.96 %	11.39 %	11.11 %

Notes on page 3 of this Exhibit.

Kentucky Utilities Company / Louisville Gas & Electric Company
Indicated Common Equity Cost Rate Through Use
of the Traditional Capital Asset Pricing Model (CAPM) and Empirical Capital Asset Pricing Model (ECAPM)

Proxy Group of Fifteen Electric Companies

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Proxy Group of Fifteen Electric Companies	Value Line Adjusted Beta	Bloomberg Adjusted Beta	Average Beta	Market Risk Premium (1)	Risk-Free Rate (2)	Traditional CAPM Cost Rate	ECAPM Cost Rate	Indicated Common Equity Cost Rate (3)
Alliant Energy Corporation	0.90	0.54	0.72	8.15 %	4.55 %	10.42 %	10.99 %	10.70 %
Ameren Corporation	0.90	0.52	0.71	8.15	4.55	10.34	10.93	10.63
American Electric Power Corporation	0.85	0.45	0.65	8.15	4.55	9.85	10.56	10.21
Duke Energy Corporation	0.90	0.43	0.66	8.15	4.55	9.93	10.62	10.28
Edison International	1.05	0.66	0.86	8.15	4.55	11.56	11.85	11.70
Entergy Corporation	1.00	0.56	0.78	8.15	4.55	10.91	11.36	11.13
Evergy, Inc.	0.95	0.54	0.75	8.15	4.55	10.66	11.17	10.92
IDACORP, Inc.	0.85	0.51	0.68	8.15	4.55	10.09	10.75	10.42
North Western Corporation	1.00	0.69	0.84	8.15	4.55	11.40	11.72	11.56
OGE Energy Corporation	1.05	0.65	0.85	8.15	4.55	11.48	11.78	11.63
Pinnacle West Capital Corporation	0.95	0.51	0.73	8.15	4.55	10.50	11.05	10.78
Portland General Electric Company	0.95	0.61	0.78	8.15	4.55	10.91	11.36	11.13
Southern Company	0.95	0.45	0.70	8.15	4.55	10.26	10.87	10.56
TXNM Energy, Inc.	0.90	0.42	0.66	8.15	4.55	9.93	10.62	10.28
Xcel Energy Inc.	0.85	0.40	0.62	8.15	4.55	9.60	10.38	9.99
Mean			0.73			10.52 %	11.07 %	10.79 %
Median			0.72			10.42 %	10.99 %	10.70 %
Average of Mean and Median			0.73			10.47 %	11.03 %	10.75 %

Results Excluding PRPM MRP

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Results Excluding PRPM MRP	Value Line Adjusted Beta	Bloomberg Adjusted Beta	Average Beta	Market Risk Premium (1)	Risk-Free Rate (2)	Traditional CAPM Cost Rate	ECAPM Cost Rate	Indicated Common Equity Cost Rate (3)
Alliant Energy Corporation	0.90	0.54	0.72	8.14 %	4.55 %	10.41 %	10.98 %	10.70 %
Ameren Corporation	0.90	0.52	0.71	8.14	4.55	10.33	10.92	10.63
American Electric Power Corporation	0.85	0.45	0.65	8.14	4.55	9.84	10.56	10.20
Duke Energy Corporation	0.90	0.43	0.66	8.14	4.55	9.92	10.62	10.27
Edison International	1.05	0.66	0.86	8.14	4.55	11.55	11.84	11.70
Entergy Corporation	1.00	0.56	0.78	8.14	4.55	10.90	11.35	11.13
Evergy, Inc.	0.95	0.54	0.75	8.14	4.55	10.66	11.17	10.91
IDACORP, Inc.	0.85	0.51	0.68	8.14	4.55	10.09	10.74	10.41
North Western Corporation	1.00	0.69	0.84	8.14	4.55	11.39	11.72	11.55
OGE Energy Corporation	1.05	0.65	0.85	8.14	4.55	11.47	11.78	11.62
Pinnacle West Capital Corporation	0.95	0.51	0.73	8.14	4.55	10.49	11.04	10.77
Portland General Electric Company	0.95	0.61	0.78	8.14	4.55	10.90	11.35	11.13
Southern Company	0.95	0.45	0.70	8.14	4.55	10.25	10.86	10.56
TXNM Energy, Inc.	0.90	0.42	0.66	8.14	4.55	9.92	10.62	10.27
Xcel Energy Inc.	0.85	0.40	0.62	8.14	4.55	9.60	10.37	9.99
Mean			0.73			10.52 %	11.06 %	10.79 %
Median			0.72			10.41 %	10.98 %	10.70 %
Average of Mean and Median			0.73			10.47 %	11.02 %	10.75 %

Notes on page 3 of this Exhibit.

Kentucky Utilities Company / Louisville Gas & Electric Company
Notes to Accompany the Application of the CAPM and ECAPM

Notes:

(1) The market risk premium (MRP) is derived by using five different measures from four sources: Kroll, Value Line, Bloomberg, and S&P Capital IQ as illustrated below:

Measure 1: Kroll Arithmetic Mean MRP (1926-2024)

Arithmetic Mean Monthly Returns for Large Stocks 1926-2024:	12.29	%
Arithmetic Mean Income Returns on Long-Term Government Bonds:	4.99	
MRP based on Kroll Historical Data:	7.31	%

Measure 2: Application of a Regression Analysis to Kroll Historical Data
(1926-2024)

	7.94	%

Measure 3: Application of the PRPM to Kroll Historical Data
(January 1926 - February 2025)

	8.18	%

Measure 4: Value Line Projected MRP (Thirteen weeks ending February 28, 2025)

Total projected return on the market 3-5 years hence*:	11.20	%
Risk-Free Rate (see notes 2 and 3):	4.55	
MRP based on Value Line Summary & Index:	6.65	%

*Forcasted 3-5 year capital appreciation plus expected dividend yield

Measure 5: Bloomberg, Value Line, and S&P Capital IQ Projected Return on the Market based on the S&P 500

Total return on the Market based on the S&P 500:	15.23	%
Risk-Free Rate (see notes 2 and 3):	4.55	
MRP based on Bloomberg, Value Line, and S&P Capital IQ data	10.68	%

Average of all MRP Measures:	8.15	%
Average MRP Excluding the PRPM MRP:	8.14	%

(2) For reasons explained in the Direct Testimony, the appropriate risk-free rate for cost of capital purposes is the average forecast of 30 year Treasury Bonds per the consensus of nearly 50 economists reported in Blue Chip Financial Forecasts. (See pages 7 and 8 of Exhibit DWD-4.) The projection of the risk-free rate is illustrated below:

First Quarter 2025	4.70	%
Second Quarter 2025	4.70	
Third Quarter 2025	4.70	
Fourth Quarter 2025	4.60	
First Quarter 2026	4.60	
Second Quarter 2026	4.60	
2026-2030	4.30	
2031-2035	4.20	
	4.55	%

(3) Average of Column 6 and Column 7.

Sources of Information:
Value Line Summary and Index
Blue Chip Financial Forecasts, November 27, 2024 and February 28, 2025
Kroll Cost of Capital Navigator
S&P Capital IQ
Bloomberg Professional Services

Kentucky Utilities Company / Louisville Gas & Electric Company
Basis of Selection of the Group of Non-Price Regulated Companies
Comparable in Total Risk to the Proxy Group of Seven Natural Gas Distribution Companies

The criteria for selection of the proxy group of non-price regulated companies comparable in total risk to the proxy group of seven natural gas distribution companies was that the non-price regulated companies be domestic and reported in Value Line Investment Survey (Standard Edition).

The proxy group of non-price regulated companies was selected based on the unadjusted beta range of 0.64 - 0.92 and residual standard error of the regression range of 2.8368 - 3.3832 of the proxy group of seven natural gas distribution companies.

These ranges are based upon plus or minus two standard deviations of the unadjusted beta and standard error of the regression. Plus or minus three standard deviations captures 95.50% of the distribution of unadjusted betas and residual standard errors of the regression.

The standard deviation of the proxy group of seven natural gas distribution companies' residual standard error of the regression is 0.1366. The standard deviation of the standard error of the regression is:

$$\text{Standard Deviation of the Std. Err. of the Regr.} = \frac{\text{Standard Error of the Regression}}{\sqrt{2N}}$$

where: N = number of observations. Since Value Line betas are derived from weekly price change observations over a period of five years, N = 259

Thus, $\quad 0.1366 \quad = \quad \dfrac{3.1100}{\sqrt{518}} \quad = \quad \dfrac{3.1100}{22.7596}$

Source of Information: Value Line Proprietary Database, December 2024.
Value Line Investment Survey (Standard Edition).

Kentucky Utilities Company / Louisville Gas & Electric Company
Basis of Selection of the Group of Non-Price Regulated Companies
Comparable in Total Risk to the Proxy Group of Fifteen Electric Companies

The criteria for selection of the proxy group of non-price regulated companies comparable in total risk to the proxy group of fifteen electric companies was that the non-price regulated companies be domestic and reported in Value Line Investment Survey (Standard Edition).

The proxy group of non-price regulated companies was selected based on the unadjusted beta range of 0.71 - 0.97 and residual standard error of the regression range of 2.6065 - 3.1089 of the proxy group of fifteen electric companies.

These ranges are based upon plus or minus two standard deviations of the unadjusted beta and standard error of the regression. Plus or minus three standard deviations captures 95.50% of the distribution of unadjusted betas and residual standard errors of the regression.

The standard deviation of the proxy group of fifteen electric companies' residual standard error of the regression is 0.1256. The standard deviation of the standard error of the regression is

$$\text{Standard Deviation of the Std. Err. of the Regr.} = \frac{\text{Standard Error of the Regression}}{\sqrt{2N}}$$

where: N = number of observations. Since Value Line betas are derived from weekly price change observations over a period of five years, N = 259.

$$\text{Thus,} \quad 0.1256 \quad = \quad \frac{2.8577}{\sqrt{518}} \quad = \quad \frac{2.8577}{22.7596}$$

Source of Information: Value Line Proprietary Database, December 2024.
Value Line Investment Survey (Standard Edition).

Kentucky Utilities Company / Louisville Gas & Electric Company
Basis of Selection of Comparable Risk
Domestic Non-Price Regulated Companies

	[1]	[2]	[3]	[4]
Proxy Group of Seven Natural Gas Distribution Companies	Value Line Adjusted Beta	Unadjusted Beta	Residual Standard Error of the Regression	Standard Deviation of Beta
Atmos Energy Corporation	0.85	0.75	2.8989	0.0647
New Jersey Resources Corporation	0.95	0.91	3.0464	0.0680
NiSource Inc.	0.90	0.83	2.6470	0.0591
Northwest Natural Holding Company	0.85	0.71	3.3761	0.0754
ONE Gas, Inc.	0.85	0.71	3.2540	0.0726
Southwest Gas Holding Company	0.90	0.80	3.4852	0.0778
Spire Inc.	0.85	0.74	3.0953	0.0691
Average	0.88	0.78	3.1100	0.0700
Beta Range (+/- 2 std. Devs. of Beta)	0.64	0.92		
2 std. Devs. of Beta	0.14			
Residual Std. Err. Range (+/- 2 std. Devs. of the Residual Std. Err.)	2.8368	3.3832		
Std. dev. of the Res. Std. Err.	0.1366			
2 std. devs. of the Res. Std. Err.	0.2732			

	[1]	[2]	[3]	[4]
Proxy Group of Fifteen Electric Companies	Value Line Adjusted Beta	Unadjusted Beta	Residual Standard Error of the Regression	Standard Deviation of Beta
Alliant Energy Corporation	0.90	0.79	2.8682	0.0640
Ameren Corporation	0.90	0.78	2.7253	0.0608
American Electric Power Corporation	0.80	0.68	2.8069	0.0627
Duke Energy Corporation	0.90	0.80	2.8177	0.0629
Edison International	1.00	0.96	3.0475	0.0680
Entergy Corporation	0.95	0.91	2.8593	0.0638
Evergy, Inc.	0.95	0.88	2.9738	0.0664
IDACORP, Inc.	0.85	0.71	2.7358	0.0611
North Western Corporation	0.95	0.89	2.8815	0.0643
OGE Energy Corporation	1.05	1.05	2.8365	0.0633
Pinnacle West Capital Corporation	0.95	0.88	3.0813	0.0688
Portland General Electric Company	0.90	0.83	2.9422	0.0657
Southern Company	0.95	0.87	2.7873	0.0622
TXNM Energy, Inc.	0.90	0.78	2.6718	0.0596
Xcel Energy Inc.	0.85	0.73	2.8298	0.0632
Average	0.92	0.84	2.8577	0.0638
Beta Range (+/- 2 std. Devs. of Beta)	0.71	0.97		
2 std. Devs. of Beta	0.13			
Residual Std. Err. Range (+/- 2 std. Devs. of the Residual Std. Err.)	2.6065	3.1089		
Std. dev. of the Res. Std. Err.	0.1256			
2 std. devs. of the Res. Std. Err.	0.2512			

Source of Information: Value Line Proprietary Database, December 2024.

Kentucky Utilities Company / Louisville Gas & Electric Company
Proxy Group of Non-Price Regulated Companies
Comparable in Total Risk to the
Proxy Group of Seven Natural Gas Distribution Companies and Proxy Group of Fifteen Electric Companies

	[1]	[2]	[3]	[4]
Proxy Group of Forty-Nine Non-Price Regulated Companies	Value Line Adjusted Beta	Unadjusted Beta	Residual Standard Error of the Regression	Standard Deviation of Beta
Abbott Labs.	0.90	0.79	2.9573	0.0660
AbbVie Inc.	0.85	0.70	3.1365	0.0700
Air Products & Chem.	0.90	0.83	3.0324	0.0677
Alphabet Inc.	0.90	0.81	3.1907	0.0712
Altria Group	0.85	0.76	2.8948	0.0646
Apple Inc.	0.95	0.91	3.2127	0.0717
Assurant Inc.	0.90	0.79	3.0394	0.0679
AutoZone Inc.	0.95	0.88	3.2399	0.0723
Booz Allen Hamilton	0.85	0.74	3.2930	0.0735
Brady Corp.	0.95	0.90	2.8860	0.0644
BWX Technologies	0.80	0.68	3.2662	0.0729
CACI Int'l	0.90	0.80	3.0359	0.0678
Casey's Gen'l Stores	0.90	0.79	3.1661	0.0707
Cencora	0.80	0.66	2.9646	0.0662
CSW Industrials	0.90	0.77	3.2779	0.0732
CVS Health	0.90	0.79	3.3646	0.0751
Danaher Corp.	0.90	0.81	3.0286	0.0676
Dolby Labs.	0.95	0.87	2.9508	0.0659
Exponent, Inc.	0.95	0.88	3.3456	0.0747
Fastenal Co.	0.90	0.80	2.9253	0.0653
Franklin Electric	0.90	0.82	2.9333	0.0655
GATX Corp.	0.95	0.90	2.9875	0.0667
Henry (Jack) & Assoc	0.85	0.74	3.1928	0.0713
Hunt (J.B.)	0.95	0.91	3.2647	0.0729
Huntington Ingalls	0.95	0.89	3.3736	0.0753
L3Harris Technologie	0.90	0.83	3.1556	0.0711
Landstar System	0.80	0.65	2.8665	0.0640
Lockheed Martin	0.85	0.75	2.8741	0.0642
McKesson Corp.	0.85	0.70	3.1485	0.0703
Microsoft Corp.	0.90	0.78	2.8520	0.0637
MSC Industrial Direc	0.90	0.84	2.9545	0.0660
Oracle Corp.	0.85	0.70	3.0995	0.0692
O'Reilly Automotive	0.90	0.84	3.0259	0.0676
OSI Systems	0.90	0.81	3.2160	0.0718
Packaging Corp.	0.95	0.85	2.8607	0.0639
Pfizer, Inc.	0.80	0.67	3.1709	0.0708
Philip Morris Int'l	0.95	0.87	2.8750	0.0642
Prestige Consumer	0.85	0.75	3.3470	0.0747
Selective Ins. Group	0.85	0.74	2.9941	0.0668
Service Corp. Int'l	0.90	0.84	3.1842	0.0711
Sherwin-Williams	0.95	0.90	2.9254	0.0653
Smith (A.O.)	0.90	0.79	3.0828	0.0688
Thermo Fisher Sci.	0.85	0.77	2.8565	0.0638
UniFirst Corp.	0.90	0.81	3.0115	0.0672
UnitedHealth Group	0.95	0.90	3.1445	0.0702
Universal Corp.	0.80	0.68	3.2233	0.0720
VeriSign Inc.	0.90	0.80	2.8857	0.0644
Waters Corp.	0.95	0.86	3.2280	0.0721
Watsco, Inc.	0.85	0.76	3.1218	0.0697
Average	0.89	0.80	3.0829	0.0688
Proxy Group of Seven Natural Gas Distribution Companies	0.88	0.78	3.1100	0.0700

Source of Information: Value Line Proprietary Database, December 2024.

Kentucky Utilities Company / Louisville Gas & Electric Company
Proxy Group of Non-Price Regulated Companies
Comparable in Total Risk to the
Proxy Group of Seven Natural Gas Distribution Companies and Proxy Group of Fifteen Electric Companies

	[1]	[2]	[3]	[4]
Proxy Group of Forty-Seven Non-Price Regulated Companies	Value Line Adjusted Beta	Unadjusted Beta	Residual Standard Error of the Regression	Standard Deviation of Beta
3M Company	0.95	0.90	2.8096	0.0627
Abbott Laboratories	0.90	0.79	2.9573	0.0660
Agilent Technologies, Inc.	0.95	0.86	2.8368	0.0633
Air Products and Chemicals, Inc.	0.90	0.83	3.0324	0.0677
Allstate Corporation	1.00	0.94	2.7930	0.0624
Altria Group, Inc.	0.85	0.76	2.8948	0.0646
Analog Devices, Inc.	1.00	0.95	2.8971	0.0647
Archer-Daniels-Midland Company	0.95	0.89	2.7243	0.0608
Assurant, Inc.	0.90	0.79	3.0394	0.0679
Brady Corporation	0.95	0.90	2.8860	0.0644
Broadridge Financial Solutions, Inc.	0.90	0.82	2.7633	0.0617
Brown & Brown, Inc.	0.95	0.91	2.6119	0.0583
Brown-Forman Corporation 'B'	0.90	0.80	2.7338	0.0610
CACI International Inc	0.90	0.80	3.0359	0.0678
Cisco Systems, Inc.	0.85	0.75	2.8343	0.0633
Danaher Corporation	0.90	0.81	3.0286	0.0676
Dolby Laboratories, Inc.	0.95	0.87	2.9508	0.0659
Expeditors International	0.95	0.91	2.6741	0.0597
FactSet Research Systems Inc.	1.00	0.95	2.7486	0.0614
Fastenal Company	0.90	0.80	2.9253	0.0653
Federal Signal Corporation	0.95	0.91	2.7333	0.0610
Franklin Electric Co., Inc.	0.90	0.82	2.9333	0.0655
GATX Corporation	0.95	0.90	2.9875	0.0667
Gentex Corporation	1.00	0.93	2.6082	0.0582
Home Depot, Inc.	0.95	0.90	2.6215	0.0585
Ingredion, Inc.	0.90	0.79	2.6281	0.0587
Innospec Inc.	1.00	0.94	3.0243	0.0675
International Business Machines Corporation	0.90	0.85	2.6691	0.0596
Juniper Networks, Inc.	1.00	0.93	2.8368	0.0633
Lockheed Martin Corporation	0.85	0.75	2.8741	0.0642
Microsoft Corporation	0.90	0.78	2.8520	0.0637
Motorola Solutions, Inc.	0.95	0.85	2.7315	0.0610
MSA Safety, Inc.	0.95	0.92	3.0893	0.0690
MSC Industrial Direct Co., Inc.	0.90	0.84	2.9545	0.0660
O'Reilly Automotive, Inc.	0.90	0.84	3.0259	0.0676
Packaging Corporation of America	0.95	0.85	2.8607	0.0639
Philip Morris International Inc.	0.95	0.87	2.8750	0.0642
Selective Insurance Group, Inc.	0.85	0.74	2.9941	0.0668
Sensient Technologies Corporation	0.90	0.85	2.8202	0.0630
Sherwin-Williams Company	0.95	0.90	2.9254	0.0653
Smith Corporation (A.O.)	0.90	0.79	3.0828	0.0688
Texas Instruments Incorporated	0.85	0.77	2.7711	0.0619
Thermo Fisher Scientific Inc.	0.85	0.77	2.8565	0.0638
UniFirst Corporation	0.90	0.81	3.0115	0.0672
VeriSign, Inc.	0.90	0.80	2.8857	0.0644
Verisk Analytics, Inc.	0.90	0.78	2.7553	0.0615
Zoetis, Inc.	1.00	0.96	2.8162	0.0629
Average	0.92	0.85	2.8596	0.0638
Proxy Group of Fifteen Electric Companies	0.92	0.84	2.8577	0.0638

Source of Information: Value Line Proprietary Database, December 2024.

Kentucky Utilities Company / Louisville Gas & Electric Company
Summary of Cost of Equity Models Applied to
Proxy Group of Non-Price Regulated Companies
Comparable in Total Risk to the
Proxy Group of Seven Natural Gas Distribution Companies and Proxy Group of Fifteen Electric Companies

Principal Methods	Proxy Group of Forty-Nine Non-Price Regulated Companies	Proxy Group of Forty-Nine Non-Price Regulated Companies (excl. PRPM)	Proxy Group of Forty-Seven Non-Price Regulated Companies	Proxy Group of Forty-Seven Non-Price Regulated Companies (excl. PRPM)
Discounted Cash Flow Model (DCF) (1)	11.87 %	11.87 %	11.17 %	11.17 %
Risk Premium Model (RPM) (2)	12.27	12.24	12.29	12.26
Capital Asset Pricing Model (CAPM) (3)	11.75	11.74	11.89	11.88
Mean	11.96 %	11.95 %	11.78 %	11.77 %
Median	11.87 %	11.87 %	11.89 %	11.88 %
Average of Mean and Median	11.92 %	11.91 %	11.84 %	11.83 %

Notes:
  (1) From pages 2-3 of this Exhibit.
  (2) From page 4 of this Exhibit.
  (3) From pages 8-11 of this Exhibit.

Kentucky Utilities Company / Louisville Gas & Electric Company
DCF Results for the Proxy Group of Non-Price-Regulated Companies Comparable in Total Risk to the
Proxy Group of Seven Natural Gas Distribution CompaniesProxy Group of Forty-Nine Non-Price Regulated Companies

	[1]	[2]	[3]	[4]	[5]	[6]	[7]
Proxy Group of Forty-Nine Non-Price Regulated Companies	Average Dividend Yield	Value Line Projected Five Year Growth in EPS	Zack's Five Year Projected Growth Rate in EPS	S&P Capital IQ Projected Five Year Growth in EPS	Average Projected Five Year Growth Rate in EPS (1)	Adjusted Dividend Yield	Indicated Common Equity Cost Rate (2)
Abbott Labs.	1.94 %	4.50 %	10.40 %	9.57 %	8.16 %	2.02 %	10.18 %
AbbVie Inc.	3.59	4.00	10.20	11.68	8.63	3.74	12.37
Air Products & Chem.	2.30	10.50	7.90	10.34	9.58	2.41	11.99
Alphabet Inc.	0.42	13.50	15.60	16.59	15.23	0.45	15.68
Altria Group	7.64	6.00	3.50	4.31	4.60	7.82	12.42
Apple Inc.	0.41	9.00	13.80	9.53	10.78	0.43	11.21
Assurant Inc.	1.51	9.50	NA	NA	9.50	1.58	11.08
AutoZone Inc.	-	11.50	11.80	12.73	12.01	-	NA
Booz Allen Hamilton	1.69	10.50	14.00	13.50	12.67	1.80	14.47
Brady Corp.	1.29	15.50	NA	11.00	13.25	1.38	14.63
BWX Technologies	0.87	9.00	10.10	10.92	10.01	0.91	10.92
CACI Int'l	-	4.50	14.10	14.08	10.89	-	NA
Casey's Gen'l Stores	0.48	12.00	12.60	12.53	12.38	0.51	12.89
Cencora	0.91	6.50	12.10	11.70	10.10	0.96	11.06
CSW Industrials	0.27	13.50	NA	12.50	13.00	0.29	13.29
CVS Health	4.93	0.50	11.30	23.31	11.70	5.22	16.92
Danaher Corp.	0.57	2.00	10.20	9.43	7.21	0.59	7.80
Dolby Labs.	1.64	9.50	NA	NA	9.50	1.72	11.22
Exponent, Inc.	1.32	7.50	NA	NA	7.50	1.37	8.87
Fastenal Co.	2.28	9.00	9.80	9.26	9.35	2.39	11.74
Franklin Electric	1.05	7.50	12.00	12.00	10.50	1.11	11.61
GATX Corp.	1.52	10.50	NA	NA	10.50	1.60	12.10
Henry (Jack) & Assoc	1.33	6.50	8.60	8.63	7.91	1.38	9.29
Hunt (J.B.)	1.02	6.00	16.40	12.48	11.63	1.08	12.71
Huntington Ingalls	2.88	10.00	11.10	11.08	10.73	3.03	13.76
L3Harris Technologie	2.25	9.00	7.30	7.88	8.06	2.34	10.40
Landstar System	0.84	6.00	NA	11.00	8.50	0.88	9.38
Lockheed Martin	2.78	12.00	7.80	6.45	8.75	2.90	11.65
McKesson Corp.	0.48	10.00	14.30	14.04	12.78	0.51	13.29
Microsoft Corp.	0.78	14.50	14.40	12.97	13.96	0.83	14.79
MSC Industrial Direc	4.21	0.50	NA	NA	0.50	4.22	4.72 (3)
Oracle Corp.	0.93	10.00	10.20	11.22	10.47	0.98	11.45
O'Reilly Automotive	-	10.50	12.80	12.12	11.81	-	NA
OSI Systems	-	10.50	12.90	14.05	12.48	-	NA
Packaging Corp.	2.21	9.00	8.30	11.31	9.54	2.32	11.86
Pfizer, Inc.	6.57	2.50	13.80	2.56	6.29	6.78	13.07
Philip Morris Int'l	4.09	5.00	8.20	9.87	7.69	4.25	11.94
Prestige Consumer	-	5.50	7.00	7.67	6.72	-	NA
Selective Ins. Group	1.68	10.50	NA	16.40	13.45	1.79	15.24
Service Corp. Int'l	1.59	4.50	10.80	10.77	8.69	1.66	10.35
Sherwin-Williams	0.89	12.00	9.80	9.56	10.45	0.94	11.39
Smith (A.O.)	1.97	9.00	12.00	12.00	11.00	2.08	13.08
Thermo Fisher Sci.	0.32	6.00	7.70	9.55	7.75	0.33	8.08
UniFirst Corp.	0.68	8.50	NA	NA	8.50	0.71	9.21
UnitedHealth Group	1.61	11.00	12.40	15.03	12.81	1.71	14.52
Universal Corp.	6.04	13.50	NA	NA	13.50	6.45	19.95 (3)
VeriSign Inc.	-	12.00	NA	NA	12.00	-	NA
Waters Corp.	-	6.50	7.80	8.29	7.53	-	NA
Watsco, Inc.	2.19	7.00	NA	NA	7.00	2.27	9.27

NA = Not Available

Mean	11.93 %
Median	11.80 %
Average of Mean and Median	11.87 %

Notes:
(1) Average of columns 2 through 5 excluding negative growth rates and extreme positive values.
(2) The application of the DCF model to the domestic, non-price regulated comparable risk companies is identical to the application of the DCF to the Utility Proxy Groups. The dividend yield is derived by using the 60 day average price and the spot indicated dividend as of 02/28/2025. The dividend yield is then adjusted by 1/2 the average projected growth rate in EPS, which is calculated by averaging the 5 year projected growth in EPS provided by Value Line, www.zacks.com, and S&P Capital IQ (excluding any negative growth rates) and then adding that growth rate to the adjusted dividend yield.

(3) Results were excluded from the final average and median as they were more than two standard deviations from the proxy group's mean.

Source of Information: Value Line Investment Survey.
www.zacks.com, Downloaded on 02/28/2025
S&P Capital IQ

Kentucky Utilities Company / Louisville Gas & Electric Company
DCF Results for the Proxy Group of Non-Price-Regulated Companies Comparable in Total Risk to the
Proxy Group of Seven Natural Gas Distribution CompaniesProxy Group of Forty-Nine Non-Price Regulated Companies

	[1]	[2]	[3]	[4]	[5]	[6]	[7]
Proxy Group of Forty-Seven Non-Price Regulated Companies	Average Dividend Yield	Value Line Projected Five Year Growth in EPS	Zack's Five Year Projected Growth Rate in EPS	S&P Capital IQ Projected Five Year Growth in EPS	Average Projected Five Year Growth Rate in EPS (1)	Adjusted Dividend Yield	Indicated Common Equity Cost Rate (2)
3M Company	2.08 %	31.00 %	5.80 %	(6.19) %	18.40 %	2.27 %	20.67 % (3)
Abbott Laboratories	1.94	4.50	10.40	9.57	8.16	2.02	10.18
Agilent Technologies, Inc.	0.71	6.50	6.60	7.56	6.89	0.73	7.62
Air Products and Chemicals, Inc.	2.30	10.50	7.90	10.34	9.58	2.41	11.99
Allstate Corporation	2.08	29.00	9.80	NMF	19.40	2.28	21.68 (3)
Altria Group, Inc.	7.64	6.00	3.50	4.31	4.60	7.82	12.42
Analog Devices, Inc.	1.82	9.00	12.00	16.87	12.62	1.93	14.55
Archer-Daniels-Midland Company	4.10	3.00	7.30	7.27	5.86	4.22	10.08
Assurant, Inc.	1.51	9.50	NA	NA	9.50	1.58	11.08
Brady Corporation	1.29	15.50	NA	11.00	13.25	1.38	14.63
Broadridge Financial Solutions, Inc.	1.51	9.50	NA	NA	9.50	1.58	11.08
Brown & Brown, Inc.	0.56	12.50	9.10	10.06	10.55	0.59	11.14
Brown-Forman Corporation 'B'	2.50	14.00	3.20	0.17	5.79	2.57	8.36
CACI International Inc	-	4.50	14.10	14.08	10.89	-	NA
Cisco Systems, Inc.	2.70	3.50	5.10	4.47	4.36	2.76	7.12
Danaher Corporation	0.57	2.00	10.20	9.43	7.21	0.59	7.80
Dolby Laboratories, Inc.	1.64	9.50	NA	NA	9.50	1.72	11.22
Expeditors International	1.28	(0.50)	4.30	10.18	7.24	1.33	8.57
FactSet Research Systems Inc.	0.88	9.00	9.20	9.86	9.35	0.92	10.27
Fastenal Company	2.28	9.00	9.80	9.26	9.35	2.39	11.74
Federal Signal Corporation	0.59	13.50	14.00	12.00	13.17	0.63	13.80
Franklin Electric Co., Inc.	1.05	7.50	12.00	12.00	10.50	1.11	11.61
GATX Corporation	1.52	10.50	NA	NA	10.50	1.60	12.10
Gentex Corporation	1.75	12.50	14.30	14.33	13.71	1.87	15.58
Home Depot, Inc.	2.27	6.50	7.10	4.04	5.88	2.34	8.22
Ingredion, Inc.	2.36	9.50	11.00	11.00	10.50	2.48	12.98
Innospec Inc.	1.42	7.50	NA	7.50	7.50	1.47	8.97
International Business Machines Corporation	2.82	3.00	4.20	7.49	4.90	2.89	7.79
Juniper Networks, Inc.	2.38	6.50	12.40	16.12	11.67	2.52	14.19
Lockheed Martin Corporation	2.78	12.00	7.80	6.45	8.75	2.90	11.65
Microsoft Corporation	0.78	14.50	14.40	12.97	13.96	0.83	14.79
Motorola Solutions, Inc.	0.94	10.00	8.40	7.39	8.60	0.98	9.58
MSA Safety, Inc.	1.23	8.00	NA	NA	8.00	1.28	9.28
MSC Industrial Direct Co., Inc.	4.21	0.50	NA	NA	0.50	4.22	4.72 (3)
O'Reilly Automotive, Inc.	-	10.50	12.80	12.12	11.81	-	NA
Packaging Corporation of America	2.21	9.00	8.30	11.31	9.54	2.32	11.86
Philip Morris International Inc.	4.09	5.00	8.20	9.87	7.69	4.25	11.94
Selective Insurance Group, Inc.	1.68	10.50	NA	16.40	13.45	1.79	15.24
Sensient Technologies Corporation	2.22	2.50	NA	14.00	8.25	2.31	10.56
Sherwin-Williams Company	0.89	12.00	9.80	9.56	10.45	0.94	11.39
Smith Corporation (A.O.)	1.97	9.00	12.00	12.00	11.00	2.08	13.08
Texas Instruments Incorporated	2.86	3.00	11.60	10.95	8.52	2.98	11.50
Thermo Fisher Scientific Inc.	0.32	6.00	7.70	9.55	7.75	0.33	8.08
UniFirst Corporation	0.68	8.50	NA	NA	8.50	0.71	9.21
VeriSign, Inc.	-	12.00	NA	NA	12.00	-	NA
Verisk Analytics, Inc.	0.63	11.00	12.00	11.98	11.66	0.67	12.33
Zoetis, Inc.	1.19	7.50	9.30	9.24	8.68	1.24	9.92

NA = Not Available

Mean	11.11 %
Median	11.22 %
Average of Mean and Median	11.17 %

Notes:

(1) Average of columns 2 through 5 excluding negative growth rates and extreme positive values.

(2) The application of the DCF model to the domestic, non-price regulated comparable risk companies is identical to the application of the DCF to the Utility Proxy Groups. The dividend yield is derived by using the 60 day average price and the spot indicated dividend as of 02/28/2025. The dividend yield is then adjusted by 1/2 the average projected growth rate in EPS, which is calculated by averaging the 5 year projected growth in EPS provided by Value Line, www.zacks.com, and S&P Capital IQ (excluding any negative growth rates) and then adding that growth rate to the adjusted dividend yield.

(3) Results were excluded from the final average and median as they were more than two standard deviations from the proxy group's mean.

Source of Information: Value Line Investment Survey.
www.zacks.com, Downloaded on 02/28/2025
S&P Capital IQ

Kentucky Utilities Company / Louisville Gas & Electric Company
Indicated Common Equity Cost Rate
Through Use of a Risk Premium Model
Using an Adjusted Total Market Approach

Line No.		Proxy Group of Forty-Nine Non-Price Regulated Companies	Proxy Group of Forty-Nine Non-Price Regulated Companies(excl. PRPM)	Proxy Group of Forty-Seven Non-Price Regulated Companies	Proxy Group of Forty-Seven Non-Price Regulated Companies(excl. PRPM)
1.	Prospective Yield on Baa2 Rated Corporate Bonds (1)	6.14 %	6.14 %	6.14 %	6.14 %
2.	Adjustment to Reflect Bond rating Difference of Non-Price Regulated Companies (2)	(0.14)	(0.14)	(0.18)	(0.18)
3.	Adjusted Bond Yield	6.01	6.01	5.96	5.96
4.	Equity Risk Premium (3)	6.26	6.23	6.33	6.3
5.	Risk Premium Derived Common Equity Cost Rate	12.27 %	12.24 %	12.29 %	12.26 %

Notes: (1) Average forecast of Baa corporate bonds based upon the consensus of nearly 50 economists reported in Blue Chip Financial Forecasts dated November 27, 2024 and February 28, 2025 (see pages 7 and 8 of Exhibit DWD-4). The estimates are detailed below.

First Quarter 2025	6.20 %
Second Quarter 2025	6.20
Third Quarter 2025	6.20
Fourth Quarter 2025	6.20
First Quarter 2026	6.20
Second Quarter 2026	6.20
2026-2030	6.00
2031-2035	5.90
Average	6.14 %

(2) The average yield spread of Baa2 rated corporate bonds over A2 corporate bonds for the three months ending February 2025. To reflect the A3/Baa1 average rating of the Proxy Group of Forty-Nine Non-Price Regulated Companies, the yield on the Baa corporate bond must be adjusted by one-half the spread between A2 and Baa2 corporate bond yields. Further, to reflect the A3 average rating of the Proxy Group of Forty-Seven Non-Price Regulated Companies, the yield on the Baa corporate bond must be adjusted by two-thirds the spread between A2 and Baa2 corporate bond yields, both shown below:

	A2 Corp. Bond Yield	Baa2 Corp. Bond Yield	Spread	
Feb-25	5.66 %	5.92 %	0.26 %
Jan-25	5.80	6.08	0.28
Dec-24	5.53	5.80	0.27
		Average yield spread	0.27
		1/2 of spread	0.14
		2/3 of spread	0.18

(3) From page 7 of this Exhibit.

Kentucky Utilities Company / Louisville Gas & Electric Company
Comparison of Long-Term Issuer Ratings for the
Proxy Group of Forty-Nine Non-Price Regulated Companies and Proxy Group of Forty-Seven Non-Price Regulated Companies

Proxy Group of Forty-Nine Non-Price Regulated Companies	Moody's Long-Term Issuer Rating February 2025		Standard & Poor's Long-Term Issuer Rating February 2025	
	Long-Term Issuer Rating	Numerical Weighting (1)	Long-Term Issuer Rating	Numerical Weighting (1)
Abbott Labs.	Aa3	4.0	AA-	4.0
AbbVie Inc.	A3	7.0	A-	7.0
Air Products & Chem.	A2	6.0	A	6.0
Alphabet Inc.	Aa2	3.0	AA+	2.0
Altria Group	A3	7.0	BBB	9.0
Apple Inc.	Aaa	1.0	AA+	2.0
Assurant Inc.	Baa2	9.0	BBB	9.0
AutoZone Inc.	Baa1	8.0	BBB	9.0
Booz Allen Hamilton	NA	--	NA	--
Brady Corp.	NA	--	NA	--
BWX Technologies	Ba2	12.0	BB	12.0
CACI Int'l	NA	--	BB+	11.0
Casey's Gen'l Stores	NA	--	NA	--
Cencora	Baa2	9.0	BBB+	8.0
CSW Industrials	NA	--	NA	--
CVS Health	Baa3	10.0	BBB	9.0
Danaher Corp.	A3	7.0	A-	7.0
Dolby Labs.	NA	--	NA	--
Exponent, Inc.	NA	--	NA	--
Fastenal Co.	NA	--	NA	--
Franklin Electric	NA	--	NA	--
GATX Corp.	Baa2	9.0	BBB	9.0
Henry (Jack) & Assoc	NA	--	NA	--
Hunt (J.B.)	Baa1	8.0	BBB+	8.0
Huntington Ingalls	Baa3	10.0	BBB-	10.0
L3Harris Technologie	Baa2	9.0	BBB	9.0
Landstar System	NA	--	NA	--
Lockheed Martin	A2	6.0	A-	7.0
McKesson Corp.	A3	7.0	BBB+	8.0
Microsoft Corp.	Aaa	1.0	AAA	1.0
MSC Industrial Direc	NA	--	NA	--
Oracle Corp.	Baa2	9.0	BBB	9.0
O'Reilly Automotive	Baa1	8.0	BBB	9.0
OSI Systems	NA	--	NA	--
Packaging Corp.	Baa2	9.0	BBB	9.0
Pfizer, Inc.	A2	6.0	A	6.0
Philip Morris Int'l	A2	6.0	A-	7.0
Prestige Consumer	NA	--	BB	12.0
Selective Ins. Group	Baa2	9.0	BBB	9.0
Service Corp. Int'l	Ba3	13.0	BB+	11.0
Sherwin-Williams	Baa2	9.0	BBB	9.0
Smith (A.O.)	NA	--	NA	--
Thermo Fisher Sci.	A3	7.0	A-	7.0
UniFirst Corp.	NA	--	NA	--
UnitedHealth Group	A2	6.0	A+	5.0
Universal Corp.	WR	--	BBB-	10.0
VeriSign Inc.	Baa3	10.0	BBB	9.0
Waters Corp.	NA	--	NA	--
Watsco, Inc.	NA	--	NA	--
Natural Gas CEM Proxy Group Average	A3/Baa1	7.5	BBB+	7.8
Louisville Gas & Electric Company	A3	7.0	A-	7.0

Notes:
(1) From page 4 of Exhibit DWD-4.

Source of Information:
    Bloomberg Professional Services.

Kentucky Utilities Company / Louisville Gas & Electric Company
Comparison of Long-Term Issuer Ratings for the
Proxy Group of Forty-Nine Non-Price Regulated Companies and Proxy Group of Forty-Seven Non-Price Regulated Companies

Proxy Group of Forty-Seven Non-Price Regulated Companies	Moody's Long-Term Issuer Rating February 2025		Standard & Poor's Long-Term Issuer Rating February 2025	
	Long-Term Issuer Rating	Numerical Weighting (1)	Long-Term Issuer Rating	Numerical Weighting (1)
3M Company	A3	7.0	BBB+	8.0
Abbott Laboratories	Aa3	4.0	AA-	4.0
Agilent Technologies, Inc.	Baa1	8.0	BBB+	8.0
Air Products and Chemicals, Inc.	A2	6.0	A	6.0
Allstate Corporation	A3	7.0	BBB+	8.0
Altria Group, Inc.	A3	7.0	BBB	9.0
Analog Devices, Inc.	A2	6.0	A-	7.0
Archer-Daniels-Midland Company	A2	6.0	A	6.0
Assurant, Inc.	Baa2	9.0	BBB	9.0
Brady Corporation	NA	--	NA	--
Broadridge Financial Solutions, Inc.	Baa2	9.0	BBB	9.0
Brown & Brown, Inc.	Baa3	10.0	BBB-	10.0
Brown-Forman Corporation 'B'	A1	5.0	A-	7.0
CACI International Inc	NA	--	BB+	11.0
Cisco Systems, Inc.	A1	5.0	AA-	4.0
Danaher Corporation	A3	7.0	A-	7.0
Dolby Laboratories, Inc.	NA	--	NA	--
Expeditors International	NA	--	NA	--
FactSet Research Systems Inc.	Baa3	10.0	NA	--
Fastenal Company	NA	--	NA	--
Federal Signal Corporation	NA	--	NA	--
Franklin Electric Co., Inc.	NA	--	NA	--
GATX Corporation	Baa2	9.0	BBB	9.0
Gentex Corporation	NA	--	NA	--
Home Depot, Inc.	A2	6.0	A	6.0
Ingredion, Inc.	Baa1	8.0	BBB	9.0
Innospec Inc.	NA	--	NR	--
International Business Machines Corporation	A3	7.0	A-	7.0
Juniper Networks, Inc.	Baa2	9.0	BBB	9.0
Lockheed Martin Corporation	A2	6.0	A-	7.0
Microsoft Corporation	Aaa	1.0	AAA	1.0
Motorola Solutions, Inc.	Baa2	9.0	BBB	9.0
MSA Safety, Inc.	NA	--	NA	--
MSC Industrial Direct Co., Inc.	NA	--	NA	--
O'Reilly Automotive, Inc.	Baa1	8.0	BBB	9.0
Packaging Corporation of America	Baa2	9.0	BBB	9.0
Philip Morris International Inc.	A2	6.0	A-	7.0
Selective Insurance Group, Inc.	Baa2	9.0	BBB	9.0
Sensient Technologies Corporation	WR	--	NR	--
Sherwin-Williams Company	Baa2	9.0	BBB	9.0
Smith Corporation (A.O.)	NA	--	NA	--
Texas Instruments Incorporated	Aa3	4.0	A+	5.0
Thermo Fisher Scientific Inc.	A3	7.0	A-	7.0
UniFirst Corporation	NA	--	NA	--
VeriSign, Inc.	Baa3	10.0	BBB	9.0
Verisk Analytics, Inc.	Baa1	8.0	BBB	9.0
Zoetis, Inc.	A3	7.0	BBB	9.0
Electric CEM Proxy Group Average	A3	7.2	BBB+	7.6
Kentucky Utilities Company	A3	7.0	A-	7.0
Louisville Gas & Electric Company	A3	7.0	A-	7.0

Notes:
(1) From page 4 of Exhibit DWD-4.

Source of Information:
Bloomberg Professional Services.

Kentucky Utilities Company / Louisville Gas & Electric Company
Derivation of Equity Risk Premium Based on the Total Market Approach
Using the Beta for
Non-Price Regulated Companies of Comparable risk to the
Proxy Group of Seven Natural Gas Distribution Companies and Proxy Group of Fifteen Electric Companies

Line No.	Equity Risk Premium Measure	Proxy Group of Forty-Nine Non-Price Regulated Companies	Proxy Group of Forty-Nine Non-Price Regulated Companies(excl. PRPM)	Proxy Group of Forty-Seven Non-Price Regulated Companies	Proxy Group of Forty-Seven Non-Price Regulated Companies(excl. PRPM)
1.	Kroll Equity Risk Premium (1)	6.10 %	6.10 %	6.10 %	6.10 %
2.	Regression on Kroll Risk Premium Data (2)	6.82	6.82	6.82	6.82
3.	Kroll Equity Risk Premium based on PRPM (3)	7.32	NA	7.32	NA
4.	Equity Risk Premium Based on Value Line Summary and Index (4)	5.85	5.85	5.85	5.85
5.	Equity Risk Premium Based on Bloomberg, Value Line, and S&P Global Market Intelligence S&P 500 Companies (5)	9.88	9.88	9.88	9.88
6.	Conclusion of Equity Risk Premium	7.19 %	7.16 %	7.19 %	7.16 %
7.	Adjusted Beta (6)	0.87	0.87	0.88	0.88
8.	Forecasted Equity Risk Premium	6.26 %	6.23 %	6.33 %	6.30 %

Notes:
(1) From note 1 of page 6 of Exhibit DWD-4.
(2) From note 2 of page 6 of Exhibit DWD-4.
(3) From note 3 of page 6 of Exhibit DWD-4.
(4) From note 4 of page 6 of Exhibit DWD-4.
(5) From note 5 of page 6 of Exhibit DWD-4.
(6) Average of mean and median beta from pages 8-9 of this Exhibit.

Sources of Information:
    Kroll Cost of Capital Navigator
    Value Line Summary and Index.
    Blue Chip Financial Forecasts, November 27, 2024 and February 28, 2025
    Bloomberg Professional Services.

Kentucky Utilities Company / Louisville Gas & Electric Company
Traditional CAPM and ECAPM Results for the Proxy Groups of Non-Price-Regulated Companies Comparable in Total Risk to the
Proxy Group of Seven Natural Gas Distribution Companies and Proxy Group of Fifteen Electric Companies

Proxy Group of Forty-Nine Non-Price Regulated Companies

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Proxy Group of Forty-Nine Non-Price Regulated Companies	Value Line Adjusted Beta	Bloomberg Beta	Average Beta	Market Risk Premium (1)	Risk-Free Rate (2)	Traditional CAPM Cost Rate	ECAPM Cost Rate	Indicated Common Equity Cost Rate (3)
Abbott Labs.	0.85	0.62	0.73	8.15 %	4.55 %	10.50 %	11.05 %	10.78 %
AbbVie Inc.	0.80	0.49	0.65	8.15	4.55	9.85	10.56	10.21
Air Products & Chem.	0.90	0.89	0.89	8.15	4.55	11.80	12.03	11.92
Alphabet Inc.	0.90	0.98	0.94	8.15	4.55	12.21	12.33	12.27
Altria Group	0.85	0.46	0.66	8.15	4.55	9.93	10.62	10.28
Apple Inc.	0.95	0.93	0.94	8.15	4.55	12.21	12.33	12.27
Assurant Inc.	0.90	0.79	0.84	8.15	4.55	11.40	11.72	11.56
AutoZone Inc.	0.90	0.69	0.80	8.15	4.55	11.07	11.48	11.27
Booz Allen Hamilton	0.90	0.97	0.94	8.15	4.55	12.21	12.33	12.27
Brady Corp.	0.95	0.72	0.83	8.15	4.55	11.32	11.66	11.49
BWX Technologies	0.85	0.87	0.86	8.15	4.55	11.56	11.85	11.70
CACI Int'l	0.90	0.82	0.86	8.15	4.55	11.56	11.85	11.70
Casey's Gen'l Stores	0.90	0.66	0.78	8.15	4.55	10.91	11.36	11.13
Cencora	0.75	0.56	0.65	8.15	4.55	9.85	10.56	10.21
CSW Industrials	0.90	1.26	1.08	8.15	4.55	13.35	13.19	13.27
CVS Health	0.90	0.76	0.83	8.15	4.55	11.32	11.66	11.49
Danaher Corp.	0.90	0.90	0.90	8.15	4.55	11.89	12.09	11.99
Dolby Labs.	0.95	0.89	0.92	8.15	4.55	12.05	12.21	12.13
Exponent, Inc.	1.00	1.14	1.07	8.15	4.55	13.27	13.13	13.20
Fastenal Co.	0.85	0.93	0.89	8.15	4.55	11.80	12.03	11.92
Franklin Electric	0.90	1.01	0.96	8.15	4.55	12.38	12.46	12.42
GATX Corp.	0.95	1.04	1.00	8.15	4.55	12.70	12.70	12.70
Henry (Jack) & Assoc	0.85	0.69	0.77	8.15	4.55	10.83	11.30	11.06
Hunt (J.B.)	0.95	1.07	1.01	8.15	4.55	12.78	12.76	12.77
Huntington Ingalls	0.95	1.04	1.00	8.15	4.55	12.70	12.70	12.70
L3Harris Technologie	0.90	0.85	0.88	8.15	4.55	11.72	11.97	11.85
Landstar System	0.80	0.99	0.90	8.15	4.55	11.89	12.09	11.99
Lockheed Martin	0.85	0.47	0.66	8.15	4.55	9.93	10.62	10.28
McKesson Corp.	0.80	0.66	0.73	8.15	4.55	10.50	11.05	10.78
Microsoft Corp.	0.90	1.03	0.97	8.15	4.55	12.46	12.52	12.49
MSC Industrial Direc	0.90	0.88	0.89	8.15	4.55	11.80	12.03	11.92
Oracle Corp.	0.85	1.36	1.11	8.15	4.55	13.60	13.37	13.49
O'Reilly Automotive	0.90	0.59	0.75	8.15	4.55	10.66	11.17	10.92
OSI Systems	0.95	1.25	1.10	8.15	4.55	13.52	13.31	13.41
Packaging Corp.	0.95	0.79	0.87	8.15	4.55	11.64	11.91	11.77
Pfizer, Inc.	0.80	0.47	0.64	8.15	4.55	9.77	10.50	10.13
Philip Morris Int'l	0.90	0.45	0.67	8.15	4.55	10.01	10.68	10.35
Prestige Consumer	0.90	0.67	0.78	8.15	4.55	10.91	11.36	11.13
Selective Ins. Group	0.90	0.66	0.78	8.15	4.55	10.91	11.36	11.13
Service Corp. Int'l	0.95	0.90	0.92	8.15	4.55	12.05	12.21	12.13
Sherwin-Williams	0.95	1.16	1.05	8.15	4.55	13.11	13.01	13.06
Smith (A.O.)	0.90	0.96	0.93	8.15	4.55	12.13	12.27	12.20
Thermo Fisher Sci.	0.85	0.83	0.84	8.15	4.55	11.40	11.72	11.56
UniFirst Corp.	0.90	0.62	0.76	8.15	4.55	10.75	11.23	10.99
UnitedHealth Group	0.95	0.36	0.65	8.15	4.55	9.85	10.56	10.21
Universal Corp.	0.85	0.68	0.77	8.15	4.55	10.83	11.30	11.06
VeriSign Inc.	0.90	0.67	0.78	8.15	4.55	10.91	11.36	11.13
Waters Corp.	0.90	0.94	0.92	8.15	4.55	12.05	12.21	12.13
Watsco, Inc.	0.90	1.34	1.12	8.15	4.55	13.68	13.44	13.56
		Mean	0.86			11.58 %	11.86 %	11.72 %
		Median	0.87			11.64 %	11.91 %	11.77 %
	Average of Mean and Median		0.87			11.61 %	11.89 %	11.75 %

Notes on page 9 of this Exhibit

Kentucky Utilities Company / Louisville Gas & Electric Company
Traditional CAPM and ECAPM Results for the Proxy Groups of Non-Price-Regulated Companies Comparable in Total Risk to the
Proxy Group of Seven Natural Gas Distribution Companies and Proxy Group of Fifteen Electric Companies

Proxy Group of Forty-Nine Non-Price Regulated Companies (Excl. PRPM MRP)

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Proxy Group of Forty-Nine Non-Price Regulated Companies	Value Line Adjusted Beta	Bloomberg Beta	Average Beta	Market Risk Premium (1)	Risk-Free Rate (2)	Traditional CAPM Cost Rate	ECAPM Cost Rate	Indicated Common Equity Cost Rate (3)
Abbott Labs.	0.85	0.62	0.73	8.14 %	4.55 %	10.49 %	11.04 %	10.77 %
AbbVie Inc.	0.80	0.49	0.65	8.14	4.55	9.84	10.56	10.20
Air Products & Chem.	0.90	0.89	0.89	8.14	4.55	11.80	12.02	11.91
Alphabet Inc.	0.90	0.98	0.94	8.14	4.55	12.21	12.33	12.27
Altria Group	0.85	0.46	0.66	8.14	4.55	9.92	10.62	10.27
Apple Inc.	0.95	0.93	0.94	8.14	4.55	12.21	12.33	12.27
Assurant Inc.	0.90	0.79	0.84	8.14	4.55	11.39	11.72	11.55
AutoZone Inc.	0.90	0.69	0.80	8.14	4.55	11.06	11.47	11.27
Booz Allen Hamilton	0.90	0.97	0.94	8.14	4.55	12.21	12.33	12.27
Brady Corp.	0.95	0.72	0.83	8.14	4.55	11.31	11.66	11.48
BWX Technologies	0.85	0.87	0.86	8.14	4.55	11.55	11.84	11.70
CACI Int'l	0.90	0.82	0.86	8.14	4.55	11.55	11.84	11.70
Casey's Gen'l Stores	0.90	0.66	0.78	8.14	4.55	10.90	11.35	11.13
Cencora	0.75	0.56	0.65	8.14	4.55	9.84	10.56	10.20
CSW Industrials	0.90	1.26	1.08	8.14	4.55	13.35	13.18	13.26
CVS Health	0.90	0.76	0.83	8.14	4.55	11.31	11.66	11.48
Danaher Corp.	0.90	0.90	0.90	8.14	4.55	11.88	12.08	11.98
Dolby Labs.	0.95	0.89	0.92	8.14	4.55	12.04	12.21	12.12
Exponent, Inc.	1.00	1.14	1.07	8.14	4.55	13.26	13.12	13.19
Fastenal Co.	0.85	0.93	0.89	8.14	4.55	11.80	12.02	11.91
Franklin Electric	0.90	1.01	0.96	8.14	4.55	12.37	12.45	12.41
GATX Corp.	0.95	1.04	1.00	8.14	4.55	12.69	12.69	12.69
Henry (Jack) & Assoc	0.85	0.69	0.77	8.14	4.55	10.82	11.29	11.05
Hunt (J.B.)	0.95	1.07	1.01	8.14	4.55	12.78	12.75	12.76
Huntington Ingalls	0.95	1.04	1.00	8.14	4.55	12.69	12.69	12.69
L3Harris Technologie	0.90	0.85	0.88	8.14	4.55	11.72	11.96	11.84
Landstar System	0.80	0.99	0.90	8.14	4.55	11.88	12.08	11.98
Lockheed Martin	0.85	0.47	0.66	8.14	4.55	9.92	10.62	10.27
McKesson Corp.	0.80	0.66	0.73	8.14	4.55	10.49	11.04	10.77
Microsoft Corp.	0.90	1.03	0.97	8.14	4.55	12.45	12.51	12.48
MSC Industrial Direc	0.90	0.88	0.89	8.14	4.55	11.80	12.02	11.91
Oracle Corp.	0.85	1.36	1.11	8.14	4.55	13.59	13.37	13.48
O'Reilly Automotive	0.90	0.59	0.75	8.14	4.55	10.66	11.17	10.91
OSI Systems	0.95	1.25	1.10	8.14	4.55	13.51	13.30	13.41
Packaging Corp.	0.95	0.79	0.87	8.14	4.55	11.63	11.90	11.77
Pfizer, Inc.	0.80	0.47	0.64	8.14	4.55	9.76	10.49	10.13
Philip Morris Int'l	0.90	0.45	0.67	8.14	4.55	10.01	10.68	10.34
Prestige Consumer	0.90	0.67	0.78	8.14	4.55	10.90	11.35	11.13
Selective Ins. Group	0.90	0.66	0.78	8.14	4.55	10.90	11.35	11.13
Service Corp. Int'l	0.95	0.90	0.92	8.14	4.55	12.04	12.21	12.12
Sherwin-Williams	0.95	1.16	1.05	8.14	4.55	13.10	13.00	13.05
Smith (A.O.)	0.90	0.96	0.93	8.14	4.55	12.12	12.27	12.19
Thermo Fisher Sci.	0.85	0.83	0.84	8.14	4.55	11.39	11.72	11.55
UniFirst Corp.	0.90	0.62	0.76	8.14	4.55	10.74	11.23	10.98
UnitedHealth Group	0.95	0.36	0.65	8.14	4.55	9.84	10.56	10.20
Universal Corp.	0.85	0.68	0.77	8.14	4.55	10.82	11.29	11.05
VeriSign Inc.	0.90	0.67	0.78	8.14	4.55	10.90	11.35	11.13
Waters Corp.	0.90	0.94	0.92	8.14	4.55	12.04	12.21	12.12
Watsco, Inc.	0.90	1.34	1.12	8.14	4.55	13.67	13.43	13.55
Mean			0.86			11.58 %	11.85 %	11.71 %
Median			0.87			11.63 %	11.90 %	11.77 %
Average of Mean and Median			0.87			11.61 %	11.88 %	11.74 %

Notes:
(1) From note 1 of page 3 of Exhibit DWD-5.
(2) From note 2 of page 3 of Exhibit DWD-5.
(3) Average of CAPM and ECAPM cost rates.
(4) Results were excluded from the final average and median as they were more than two standard deviations from the proxy group's mean.

Kentucky Utilities Company / Louisville Gas & Electric Company
Traditional CAPM and ECAPM Results for the Proxy Groups of Non-Price-Regulated Companies Comparable in Total Risk to the
Proxy Group of Seven Natural Gas Distribution Companies and Proxy Group of Fifteen Electric Companies

Proxy Group of Forty-Seven Non-Price Regulated Companies

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Proxy Group of Forty-Seven Non-Price Regulated Companies	Value Line Adjusted Beta	Bloomberg Beta	Average Beta	Market Risk Premium (1)	Risk-Free Rate (2)	Traditional CAPM Cost Rate	ECAPM Cost Rate	Indicated Common Equity Cost Rate (3)
3M Company	NMF	0.95	0.95	8.15 %	4.55 %	12.29 %	12.40 %	12.34 %
Abbott Laboratories	0.85	0.62	0.73	8.15	4.55	10.50	11.05	10.78
Agilent Technologies, Inc.	0.90	1.02	0.96	8.15	4.55	12.38	12.46	12.42
Air Products and Chemicals, Inc.	0.90	0.89	0.89	8.15	4.55	11.80	12.03	11.92
Allstate Corporation	1.00	0.63	0.81	8.15	4.55	11.15	11.54	11.35
Altria Group, Inc.	0.85	0.46	0.66	8.15	4.55	9.93	10.62	10.28 (4)
Analog Devices, Inc.	1.00	1.19	1.09	8.15	4.55	13.44	13.25	13.34
Archer-Daniels-Midland Company	0.95	0.59	0.77	8.15	4.55	10.83	11.30	11.06
Assurant, Inc.	0.90	0.79	0.84	8.15	4.55	11.40	11.72	11.56
Brady Corporation	0.95	0.72	0.83	8.15	4.55	11.32	11.66	11.49
Broadridge Financial Solutions, Inc.	0.90	0.86	0.88	8.15	4.55	11.72	11.97	11.85
Brown & Brown, Inc.	1.00	0.72	0.86	8.15	4.55	11.56	11.85	11.70
Brown-Forman Corporation 'B'	0.90	0.82	0.86	8.15	4.55	11.56	11.85	11.70
CACI International Inc	0.90	0.82	0.86	8.15	4.55	11.56	11.85	11.70
Cisco Systems, Inc.	0.85	0.81	0.83	8.15	4.55	11.32	11.66	11.49
Danaher Corporation	0.90	0.90	0.90	8.15	4.55	11.89	12.09	11.99
Dolby Laboratories, Inc.	0.95	0.89	0.92	8.15	4.55	12.05	12.21	12.13
Expeditors International	0.90	0.77	0.84	8.15	4.55	11.40	11.72	11.56
FactSet Research Systems Inc.	1.00	0.84	0.92	8.15	4.55	12.05	12.21	12.13
Fastenal Company	0.85	0.93	0.89	8.15	4.55	11.80	12.03	11.92
Federal Signal Corporation	1.00	1.25	1.13	8.15	4.55	13.76	13.50	13.63 (4)
Franklin Electric Co., Inc.	0.90	1.01	0.96	8.15	4.55	12.38	12.46	12.42
GATX Corporation	0.95	1.04	1.00	8.15	4.55	12.70	12.70	12.70
Gentex Corporation	1.00	0.95	0.98	8.15	4.55	12.54	12.58	12.56
Home Depot, Inc.	0.95	1.08	1.01	8.15	4.55	12.78	12.76	12.77
Ingredion, Inc.	0.90	0.71	0.80	8.15	4.55	11.07	11.48	11.27
Innospec Inc.	0.95	1.15	1.05	8.15	4.55	13.11	13.01	13.06
International Business Machines Corporation	0.95	0.77	0.86	8.15	4.55	11.56	11.85	11.70
Juniper Networks, Inc.	0.95	0.62	0.79	8.15	4.55	10.99	11.42	11.20
Lockheed Martin Corporation	0.85	0.47	0.66	8.15	4.55	9.93	10.62	10.28 (4)
Microsoft Corporation	0.90	1.03	0.97	8.15	4.55	12.46	12.52	12.49
Motorola Solutions, Inc.	0.95	0.94	0.94	8.15	4.55	12.21	12.33	12.27
MSA Safety, Inc.	1.00	0.90	0.95	8.15	4.55	12.29	12.40	12.34
MSC Industrial Direct Co., Inc.	0.90	0.88	0.89	8.15	4.55	11.80	12.03	11.92
O'Reilly Automotive, Inc.	0.90	0.59	0.75	8.15	4.55	10.66	11.17	10.92
Packaging Corporation of America	0.95	0.79	0.87	8.15	4.55	11.64	11.91	11.77
Philip Morris International Inc.	0.90	0.45	0.67	8.15	4.55	10.01	10.68	10.35
Selective Insurance Group, Inc.	0.90	0.66	0.78	8.15	4.55	10.91	11.36	11.13
Sensient Technologies Corporation	0.95	0.97	0.96	8.15	4.55	12.38	12.46	12.42
Sherwin-Williams Company	0.95	1.16	1.05	8.15	4.55	13.11	13.01	13.06
Smith Corporation (A.O.)	0.90	0.96	0.93	8.15	4.55	12.13	12.27	12.20
Texas Instruments Incorporated	0.90	1.09	0.99	8.15	4.55	12.62	12.64	12.63
Thermo Fisher Scientific Inc.	0.85	0.83	0.84	8.15	4.55	11.40	11.72	11.56
UniFirst Corporation	0.90	0.62	0.76	8.15	4.55	10.75	11.23	10.99
VeriSign, Inc.	0.90	0.67	0.78	8.15	4.55	10.91	11.36	11.13
Verisk Analytics, Inc.	0.90	0.72	0.81	8.15	4.55	11.15	11.54	11.35
Zoetis, Inc.	1.00	0.86	0.93	8.15	4.55	12.13	12.27	12.20
		Mean	0.88			11.73 %	11.97 %	11.88 %
		Median	0.88			11.72 %	11.97 %	11.89 %
	Average of Mean and Median		0.88			11.73 %	11.97 %	11.89 %

Notes on page 11 of this Exhibit

Kentucky Utilities Company / Louisville Gas & Electric Company
Traditional CAPM and ECAPM Results for the Proxy Groups of Non-Price-Regulated Companies Comparable in Total Risk to the
Proxy Group of Seven Natural Gas Distribution Companies and Proxy Group of Fifteen Electric Companies

Proxy Group of Forty-Seven Non-Price Regulated Companies (Excl. PRPM MRP)

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Proxy Group of Forty-Seven Non-Price Regulated Companies	Value Line Adjusted Beta	Bloomberg Beta	Average Beta	Market Risk Premium (1)	Risk-Free Rate (2)	Traditional CAPM Cost Rate	ECAPM Cost Rate	Indicated Common Equity Cost Rate (3)
3M Company	NMF	0.95	0.95	8.14 %	4.55 %	12.29 %	12.39 %	12.34 %
Abbott Laboratories	0.85	0.62	0.73	8.14	4.55	10.49	11.04	10.77
Agilent Technologies, Inc.	0.90	1.02	0.96	8.14	4.55	12.37	12.45	12.41
Air Products and Chemicals, Inc.	0.90	0.89	0.89	8.14	4.55	11.80	12.02	11.91
Allstate Corporation	1.00	0.63	0.81	8.14	4.55	11.15	11.53	11.34
Altria Group, Inc.	0.85	0.46	0.66	8.14	4.55	9.92	10.62	10.27 (4)
Analog Devices, Inc.	1.00	1.19	1.09	8.14	4.55	13.43	13.24	13.33
Archer-Daniels-Midland Company	0.95	0.59	0.77	8.14	4.55	10.82	11.29	11.05
Assurant, Inc.	0.90	0.79	0.84	8.14	4.55	11.39	11.72	11.55
Brady Corporation	0.95	0.72	0.83	8.14	4.55	11.31	11.66	11.48
Broadridge Financial Solutions, Inc.	0.90	0.86	0.88	8.14	4.55	11.72	11.96	11.84
Brown & Brown, Inc.	1.00	0.72	0.86	8.14	4.55	11.55	11.84	11.70
Brown-Forman Corporation 'B'	0.90	0.82	0.86	8.14	4.55	11.55	11.84	11.70
CACI International Inc	0.90	0.82	0.86	8.14	4.55	11.55	11.84	11.70
Cisco Systems, Inc.	0.85	0.81	0.83	8.14	4.55	11.31	11.66	11.48
Danaher Corporation	0.90	0.90	0.90	8.14	4.55	11.88	12.08	11.98
Dolby Laboratories, Inc.	0.95	0.89	0.92	8.14	4.55	12.04	12.21	12.12
Expeditors International	0.90	0.77	0.84	8.14	4.55	11.39	11.72	11.55
FactSet Research Systems Inc.	1.00	0.84	0.92	8.14	4.55	12.04	12.21	12.12
Fastenal Company	0.85	0.93	0.89	8.14	4.55	11.80	12.02	11.91
Federal Signal Corporation	1.00	1.25	1.13	8.14	4.55	13.75	13.49	13.62 (4)
Franklin Electric Co., Inc.	0.90	1.01	0.96	8.14	4.55	12.37	12.45	12.41
GATX Corporation	0.95	1.04	1.00	8.14	4.55	12.69	12.69	12.69
Gentex Corporation	1.00	0.95	0.98	8.14	4.55	12.53	12.57	12.55
Home Depot, Inc.	0.95	1.08	1.01	8.14	4.55	12.78	12.75	12.76
Ingredion, Inc.	0.90	0.71	0.80	8.14	4.55	11.06	11.47	11.27
Innospec Inc.	0.95	1.15	1.05	8.14	4.55	13.10	13.00	13.05
International Business Machines Corporation	0.95	0.77	0.86	8.14	4.55	11.55	11.84	11.70
Juniper Networks, Inc.	0.95	0.62	0.79	8.14	4.55	10.98	11.41	11.20
Lockheed Martin Corporation	0.85	0.47	0.66	8.14	4.55	9.92	10.62	10.27 (4)
Microsoft Corporation	0.90	1.03	0.97	8.14	4.55	12.45	12.51	12.48
Motorola Solutions, Inc.	0.95	0.94	0.94	8.14	4.55	12.21	12.33	12.27
MSA Safety, Inc.	1.00	0.90	0.95	8.14	4.55	12.29	12.39	12.34
MSC Industrial Direct Co., Inc.	0.90	0.88	0.89	8.14	4.55	11.80	12.02	11.91
O'Reilly Automotive, Inc.	0.90	0.59	0.75	8.14	4.55	10.66	11.17	10.91
Packaging Corporation of America	0.95	0.79	0.87	8.14	4.55	11.63	11.90	11.77
Philip Morris International Inc.	0.90	0.45	0.67	8.14	4.55	10.01	10.68	10.34
Selective Insurance Group, Inc.	0.90	0.66	0.78	8.14	4.55	10.90	11.35	11.13
Sensient Technologies Corporation	0.95	0.97	0.96	8.14	4.55	12.37	12.45	12.41
Sherwin-Williams Company	0.95	1.16	1.05	8.14	4.55	13.10	13.00	13.05
Smith Corporation (A.O.)	0.90	0.96	0.93	8.14	4.55	12.12	12.27	12.19
Texas Instruments Incorporated	0.90	1.09	0.99	8.14	4.55	12.61	12.63	12.62
Thermo Fisher Scientific Inc.	0.85	0.83	0.84	8.14	4.55	11.39	11.72	11.55
UniFirst Corporation	0.90	0.62	0.76	8.14	4.55	10.74	11.23	10.98
VeriSign, Inc.	0.90	0.67	0.78	8.14	4.55	10.90	11.35	11.13
Verisk Analytics, Inc.	0.90	0.72	0.81	8.14	4.55	11.15	11.53	11.34
Zoetis, Inc.	1.00	0.86	0.93	8.14	4.55	12.12	12.27	12.19
Mean			0.88			11.72 %	11.97 %	11.88 %
Median			0.88			11.72 %	11.96 %	11.88 %
Average of Mean and Median			0.88			11.72 %	11.97 %	11.88 %

Notes:
(1) From note 1 of page 3 of Exhibit DWD-5.
(2) From note 2 of page 3 of Exhibit DWD-5.
(3) Average of CAPM and ECAPM cost rates.
(4) Results were excluded from the final average and median as they were more than two standard deviations from the proxy group's mean.

Kentucky Utilities Company / Louisville Gas & Electric Company
Derivation of Investment Risk Adjustment Based upon
Ibbotson Associates' Size Premia for the Decile Portfolios of the NYSE/AMEX/NASDAQ

			[1]		[2]	[3]	[4]
Line No.			Market Capitalization on February 28, 2025 (1)		Applicable Decile of the NYSE/AMEX/ NASDAQ (2)	Applicable Size Premium (3)	Spread from Applicable Size Premium (4)
			(millions)	(times larger)			
1.	a.	Kentucky Utilities Company	$ 6,462.402		4	0.64%	
	b.	Louisville Gas & Electric Company - Electric	$ 3,970.346		5	0.95%	
	c.	Louisville Gas & Electric Company - Gas	$ 1,174.887		7	1.39%	
2.	a.	Proxy Group of Fifteen Electric Companies	$ 16,525.930	2.6 x	2	0.46%	0.18%
	b.	Proxy Group of Fifteen Electric Companies	$ 16,525.930	4.2 x	2	0.46%	0.49%
	c.	Companies	$ 4,721.136	4.0 x	4	0.64%	0.75%
			[A]		[B]	[C]	[D]

	Decile	Market Capitalization of Smallest Company (millions)	Market Capitalization of Largest Company (millions)	Size Premium (Return in Excess of CAPM)*
Largest	1	$ 36,942.976	$ 2,662,326.048	-0.06%
	2	14,910.719	36,391.113	0.46%
	3	7,493.607	14,820.048	0.61%
	4	4,622.261	7,461.284	0.64%
	5	3,011.224	4,621.785	0.95%
	6	1,864.293	3,010.806	1.21%
	7	1,050.083	1,862.491	1.39%
	8	555.880	1,046.037	1.14%
	9	213.039	554.523	1.99%
Smallest	10	1.576	212.644	4.70%

*From 2024 Kroll Cost of Capital Navigator

Notes:
(1) From page 2 of this Exhibit.
(2) Gleaned from Columns [B] and [C] on the bottom of this page. The appropriate decile (Column [A]) corresponds to the market capitalization of the proxy group, which is found in Column [1].
(3) Corresponding risk premium to the decile is provided in Column [D] on the bottom of this page.
(4) Line No. 1 Column [3] – Line No. 2 Column [3]. For example, the 0.18% in Column [4], Line No. 2 is derived as follows 0.18% = 0.64% - 0.46%.

Kentucky Utilities Company / Louisville Gas & Electric Company
Market Capitalization of Kentucky Utilities Company / Louisville Gas & Electric Company and the
Proxy Group of Seven Natural Gas Distribution Companies and Proxy Group of Fifteen Electric Companies

		[1]	[2]	[3]	[4]	[5]	[6]
Company	Exchange	Common Stock Shares Outstanding at Fiscal Year End 2023 (millions)	Book Value per Share at Fiscal Year End 2023 (1)	Total Common Equity at Fiscal Year End 2023 (millions)	Closing Stock Market Price on February 28, 2025	Market-to-Book Ratio on February 28, 2025 (2)	Market Capitalization on February 28, 2025 (3) (millions)
Kentucky Utilities Company		NA	NA	$ 3,221.536 (4)	NA		
Louisville Gas & Electric Company - Electric		NA	NA	$ 1,979.235 (4)	NA		
Louisville Gas & Electric Company - Gas		NA	NA	$ 723.898 (4)	NA		
Based upon Proxy Group of Fifteen Electric Companies						200.6 (5)	$ 6,462.402 (6)
Based upon Proxy Group of Fifteen Electric Companies						200.6 (5)	$ 3,970.346 (6)
Based upon Proxy Group of Seven Natural Gas Distribution Companies						162.3 (5)	$ 1,174.887 (6)
Proxy Group of Seven Natural Gas Distribution Companies							
Atmos Energy Corporation	NYSE	148.49	$ 73.203	$ 10,870.06	$ 152.13	207.8 %	$ 22,590.207
New Jersey Resources Corporation	NYSE	97.58	20.40	1,990.74	48.38	237.20	4,721.14
NiSource Inc.	NYSE	447.38	17.40	7,783.50	40.81	234.60	18,257.65
Northwest Natural Holding Company	NYSE	37.63	34.12	1,283.84	40.88	119.80	1,538.36
ONE Gas, Inc.	NYSE	56.55	48.91	2,765.88	75.15	153.60	4,249.43
Southwest Gas Holding Company	NYSE	71.56	46.25	3,310.04	75.05	162.30	5,370.86
Spire Inc.	NYSE	53.17	54.87	2,917.30	76.86	140.10	4,086.66
Median		71.564	$ 46.253	$ 2,917.300	$ 75.050	162.3 %	$ 4,721.136
Proxy Group of Fifteen Electric Companies							
Alliant Energy Corporation	NASDAQ	256.10	$ 26.463	$ 6,777.00	$ 64.53	243.8 %	$ 16,525.930
Ameren Corporation	NYSE	266.30	42.62	11,349.00	101.56	238.30	27,045.43
American Electric Power Corporation	NASDAQ	526.18	47.98	25,246.70	106.05	221.00	55,801.88
Duke Energy Corporation	NYSE	771.00	61.15	47,150.00	117.49	192.10	90,584.79
Edison International	NYSE	383.92	36.02	13,828.00	54.44	151.20	20,900.87
Entergy Corporation	NYSE	212.85	68.70	14,622.65	87.31	127.10	18,583.81
Evergy, Inc.	NASDAQ	229.73	42.06	9,663.10	68.91	163.80	15,830.65
IDACORP, Inc.	NYSE	50.62	57.45	2,907.57	117.91	205.30	5,968.04
North Western Corporation	NASDAQ	64.76	43.01	2,785.31	55.93	130.00	3,622.13
OGE Energy Corporation	NYSE	200.30	22.52	4,511.60	46.28	205.50	9,269.88
Pinnacle West Capital Corporation	NYSE	113.54	54.41	6,177.66	92.54	170.10	10,506.78
Portland General Electric Company	NYSE	101.16	32.81	3,319.00	44.83	136.60	4,534.99
Southern Company	NYSE	1,092.00	28.80	31,444.00	89.79	311.80	98,050.68
TXNM Energy, Inc.	NYSE	90.20	26.04	2,349.09	52.25	200.60	4,712.97
Xcel Energy Inc.	NASDAQ	554.94	31.75	17,617.00	72.10	227.10	40,011.30
Median		229.729	$ 42.063	$ 9,663.100	$ 72.100	200.6 %	$ 16,525.930

NA= Not Available

Notes: (1) Column 3 / Column 1.
(2) Column 4 / Column 2.
(3) Column 1 * Column 4.
(4) Requested rate base multiplied by the requested common equity ratio.
(5) The market-to-book ratio of Kentucky Utilities Company / Louisville Gas & Electric Company on February 28, 2025 is assumed to be equal to the market-to-book ratio of Proxy Group of Seven Natural Gas Distribution Companies and Proxy Group of Fifteen Electric Companies on February 28, 2025 as appropriate.
(6) Column [3] multiplied by Column [5].

Source of Information: 2023 Annual Forms 10K
Bloomberg Professional

Kentucky Utilities Company / Louisville Gas & Electric Company
Hypothetical Example: Flotation Cost Recovery

Return on Equity	10.75%
Flotation Costs	2.75%
Market Value	$ 25.00
Dividend Yield	3.50%
Growth Rate	7.25%
Adjusted ROE	10.85%
Flotation Cost Recovery:	**No**
DCF Estimate	**10.65%**

	Common Stock	Retained Earnings	Book Value	Market Price	Market/ Book Value	Earnings Per Share	Dividends Per Share	Payout Ratio
1	$ 24.31		$ 24.31	$ 25.00	1.0283	$ 2.61	$ 0.88	33.48%
2	$ 24.31	$ 1.74	$ 26.05	$ 26.79	1.0283	$ 2.80	$ 0.94	33.48%
3	$ 24.31	$ 3.60	$ 27.91	$ 28.70	1.0283	$ 3.00	$ 1.00	33.48%
4	$ 24.31	$ 5.60	$ 29.91	$ 30.76	1.0283	$ 3.22	$ 1.08	33.48%
5	$ 24.31	$ 7.74	$ 32.05	$ 32.96	1.0283	$ 3.45	$ 1.15	33.48%
6	$ 24.31	$ 10.03	$ 34.34	$ 35.31	1.0283	$ 3.69	$ 1.24	33.48%
7	$ 24.31	$ 12.48	$ 36.80	$ 37.84	1.0283	$ 3.96	$ 1.32	33.48%
8	$ 24.31	$ 15.12	$ 39.43	$ 40.54	1.0283	$ 4.24	$ 1.42	33.48%
9	$ 24.31	$ 17.94	$ 42.25	$ 43.44	1.0283	$ 4.54	$ 1.52	33.48%
10	$ 24.31	$ 20.96	$ 45.27	$ 46.55	1.0283	$ 4.87	$ 1.63	33.48%
	Growth Rate		7.15%	7.15%		7.15%	7.15%	

Return on Equity	10.75%
Flotation Costs	2.75%
Market Value	$ 25.00
Dividend Yield	3.50%
Growth Rate	7.25%
Adjusted ROE	10.85%
Flotation Cost Recovery:	**Yes**
DCF Estimate	**10.75%**

	Common Stock	Retained Earnings	Book Value	Market Price	Market/ Book Value	Earnings Per Share	Dividends Per Share	Payout Ratio
1	$ 24.31		$ 24.31	$ 25.00	1.0283	$ 2.64	$ 0.88	33.17%
2	$ 24.31	$ 1.76	$ 26.08	$ 26.81	1.0283	$ 2.83	$ 0.94	33.17%
3	$ 24.31	$ 3.65	$ 27.97	$ 28.76	1.0283	$ 3.03	$ 1.01	33.17%
4	$ 24.31	$ 5.68	$ 29.99	$ 30.84	1.0283	$ 3.25	$ 1.08	33.17%
5	$ 24.31	$ 7.86	$ 32.17	$ 33.08	1.0283	$ 3.49	$ 1.16	33.17%
6	$ 24.31	$ 10.19	$ 34.50	$ 35.48	1.0283	$ 3.74	$ 1.24	33.17%
7	$ 24.31	$ 12.69	$ 37.00	$ 38.05	1.0283	$ 4.01	$ 1.33	33.17%
8	$ 24.31	$ 15.37	$ 39.68	$ 40.81	1.0283	$ 4.31	$ 1.43	33.17%
9	$ 24.31	$ 18.25	$ 42.56	$ 43.76	1.0283	$ 4.62	$ 1.53	33.17%
10	$ 24.31	$ 21.33	$ 45.65	$ 46.94	1.0283	$ 4.95	$ 1.64	33.17%
	Growth Rate		7.25%	7.25%		7.25%	7.25%	

Kentucky Utilities Company / Louisville Gas & Electric Company
Derivation of the Flotation Cost Adjustment to the Cost of Common Equity

Equity Issuances since 2005

		[Column 1]	[Column 2]	[Column 3]	[Column 4]	[Column 5]	[Column 6]	[Column 7]	[Column 8]	[Column 9]	[Column 10]
Date of Offering	Transaction (1)	Shares Issued (1)	Market Price per Share (1)	Average Offering Price per Share (1)	Market Pressure (2)	Issuance Expense	Net Proceeds per Share (3)	Gross Equity Issue before Costs (4)	Total Net Proceeds (5)	Total Flotation Costs (6)	Flotation Cost Percentage (7)
5/8/2018	Equity Offering	55,000,000	$ 27.45	$ 27.00	$ 0.45	$ 0.312	$ 26.69	$ 1,509,750,000	$ 1,467,813,500	$ 41,936,500	2.78%
4/10/2012	Equity Offering	9,900,000	$ 27.06	$ 27.02	$ 0.04	$ 0.716	$ 26.30	$ 267,894,000	$ 260,412,000	$ 7,482,000	2.79%
4/11/2011	Equity Offering	80,000,000	$ 25.69	$ 25.30	$ 0.39	$ 0.772	$ 24.53	$ 2,055,200,000	$ 1,962,280,000	$ 92,920,000	4.52%
6/22/2010	Equity Offering	90,000,000	$ 24.24	$ 24.00	$ 0.24	$ 0.726	$ 23.27	$ 2,181,600,000	$ 2,094,700,000	$ 86,900,000	3.98%
								$ 6,014,444,000	$ 5,785,205,500	$ 229,238,500	3.81%

Flotation Cost Adjustment

	[Column 11]	[Column 12]	[Column 13]	[Column 14]	[Column 15]	[Column 16]
	Average Dividend Yield	Average Projected EPS Growth Rate	Adjusted Dividend Yield	Average DCF Cost Rate Unadjusted for Flotation (8)	DCF Cost Rate Adjusted for Flotation (9)	Flotation Cost Adjustment (10)
Proxy Group of Seven Natural Gas Companies and Fifteen Electric Companies	3.76 %	6.44 %	3.88 %	10.32 %	10.47 %	0.15 %

Notes: (1) From company SEC filings
(2) Col. 2 - Col. 3
(3) Col. 2 - Col. 4 - Col. 5
(4) Col. 1 x Col. 2
(5) Col. 1 x Col. 6
(6) Col. 1 *(Col. 4 + Col. 5)
(7) (Col. 7 - Col. 8) / Col. 7
(8) Col. 12 + Col. 13
(9) (Col. 13 / (1 - Col. 10)) + Col. 12
(10) Col. 15 - Col. 14

Source of Information: Company SEC filings.

Kentucky Utilities Company / Louisville Gas & Electric Company
Comparison of Projected Capital Expenditures Relative to Net Plant
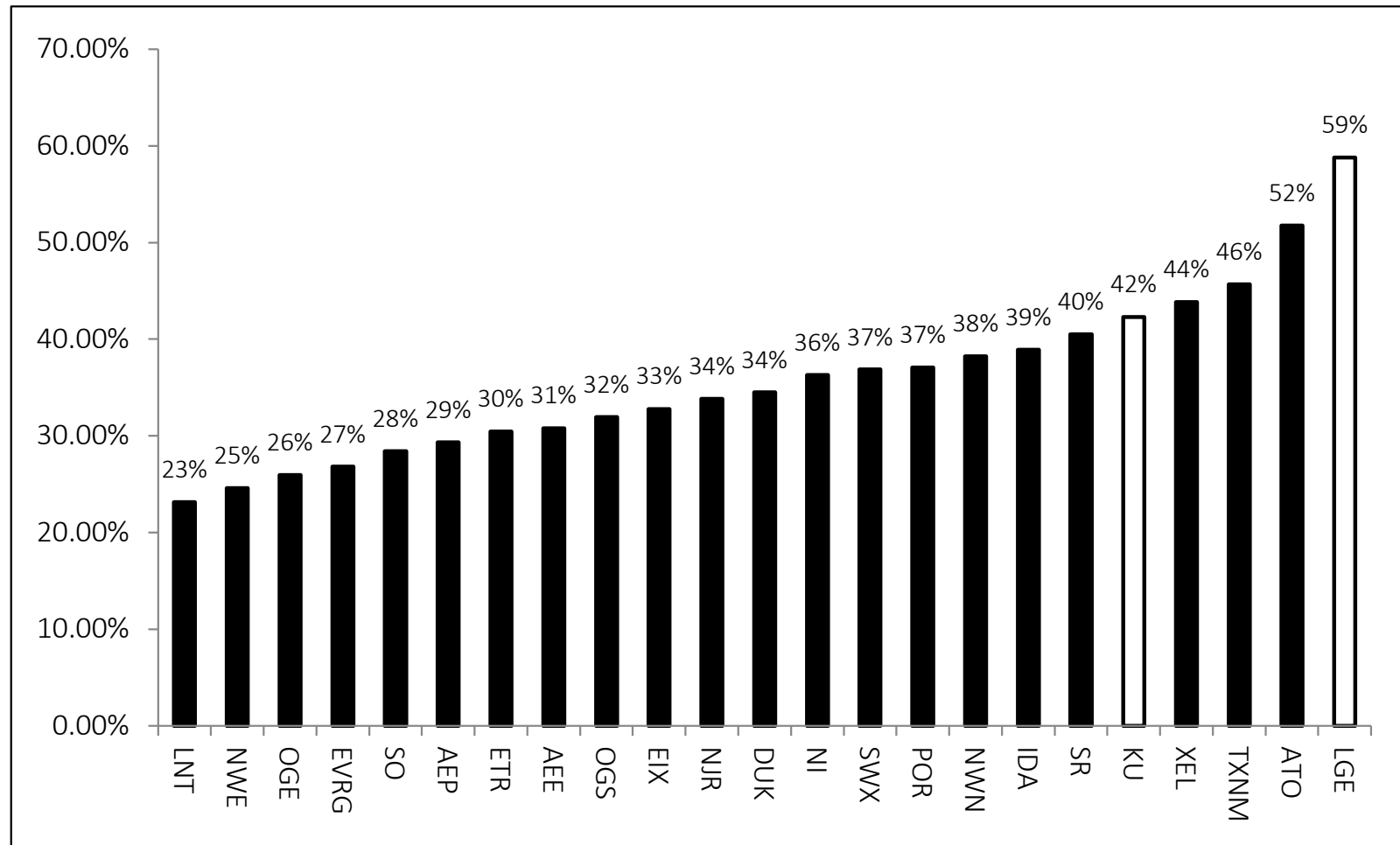
Sources of Information: *Value Line Investment Survey*
PPL 2024 SEC Form 10-K

Louisville Gas & Electric and Kentucky Utilities
Adjustment Clauses and Alternative Forms of Rate Regulation Allowed for Exelon Utilities and Electric and Gas Proxy Group Subsidiaries

Company	Parent	Elec/Gas	State	Fuel / Purchased Power	Decoupling [1]	Capital Investment [2]	Energy Efficiency [3]	Renewables & RPS [4]	Environmental [5]	Other [6]	Multi-Year Rate Plan	Formula-Based Rates	Formula-Based ROE	Other Performance Based Ratemaking [7]	Earnings Sharing Mechanism	Forward Test Year Allowed in Jurisdiction [8]
Ameren Illinois Company	AEE	Electric	Illinois		P	✓	✓	✓	✓	✓	✓			✓		✓
Union Electric Company	AEE	Electric	Missouri	✓	P	✓	✓	✓		✓						K
Southwestern Electric Power Company	AEP	Electric	Arkansas	✓	P	✓	✓	✓	✓	✓		✓				K
Indiana Michigan Power Company	AEP	Electric	Indiana	✓	P	✓	✓	✓	✓	✓						K
Kentucky Power Company	AEP	Electric	Kentucky	✓	P	✓	✓	✓	✓	✓						✓
Southwestern Electric Power Company	AEP	Electric	Louisiana	✓	P	✓	✓	✓	✓	✓		✓		✓		✓
Indiana Michigan Power Company	AEP	Electric	Michigan	✓	P		✓	✓	✓	✓						✓
Ohio Power Company	AEP	Electric	Ohio		P	✓	✓	✓		✓						✓
Public Service Company of Oklahoma	AEP	Electric	Oklahoma	✓	P	✓	✓	✓		✓						K
Kingsport Power Company	AEP	Electric	Tennessee	✓				✓		✓						✓
AEP Texas Inc.	AEP	Electric	Texas			✓	✓	✓	✓	✓						
Southwestern Electric Power Company	AEP	Electric	Texas	✓			✓	✓		✓						
Appalachian Power Company	AEP	Electric	Virginia	✓		✓	✓	✓	✓	✓	✓				✓	✓
Appalachian Power (Wheeling Power)	AEP	Electric	West Virginia	✓	P	✓	✓	✓	✓	✓	✓					K
Duke Energy Florida, LLC	DUK	Electric	Florida	✓		✓	✓	✓	✓	✓	✓		✓	✓		✓
Duke Energy Indiana, LLC	DUK	Electric	Indiana	✓	P	✓	✓	✓	✓	✓						K
Duke Energy Kentucky, Inc.	DUK	Electric	Kentucky	✓	P	✓	✓	✓	✓	✓						✓
Duke Energy Carolinas, LLC	DUK	Electric	North Carolina	✓	P	✓	✓	✓	✓		✓			✓	✓	K
Duke Energy Progress, LLC	DUK	Electric	North Carolina	✓	P	✓	✓	✓	✓		✓			✓	✓	K
Duke Energy Ohio, Inc.	DUK	Electric	Ohio		P	✓	✓	✓		✓				✓		✓
Duke Energy Carolinas, LLC	DUK	Electric	South Carolina	✓			✓	✓	✓	✓						K
Duke Energy Progress, LLC	DUK	Electric	South Carolina	✓			✓	✓	✓	✓						K
Southern California Edison Company	EIX	Electric	California	✓	F		✓	✓		✓	✓			✓	✓	✓
Entergy Arkansas LLC	ETR	Electric	Arkansas	✓	P	✓	✓		✓	✓		✓				K
Entergy Louisiana LLC	ETR	Electric	Louisiana	✓	P	✓	✓	✓	✓	✓		✓	✓			✓
Entergy Mississippi LLC	ETR	Electric	Mississippi	✓	P	✓	✓			✓		✓				K
Entergy New Orleans LLC	ETR	Electric	New Orleans	✓	F	✓	✓		✓	✓		✓				✓
Entergy Texas Inc.	ETR	Electric	Texas	✓			✓	✓		✓						
Evergy Kansas Central	EVRG	Electric	Kansas	✓	P	✓	✓	✓	✓	✓				✓		
Evergy Kansas Metro	EVRG	Electric	Kansas	✓			✓	✓	✓	✓				✓		
Evergy Missouri Metro	EVRG	Electric	Missouri	✓	P	✓	✓	✓		✓						K
Evergy Missouri West	EVRG	Electric	Missouri	✓	P	✓	✓	✓		✓						K
Idaho Power Co.	IDA	Electric	Idaho	✓	F		✓			✓					✓	✓
Idaho Power Co.	IDA	Electric	Oregon	✓			✓	✓								✓
Interstate Power and Light Company	LNT	Electric	Iowa	✓			✓	✓	✓	✓						✓
Wisconsin Power and Light Company	LNT	Electric	Wisconsin	✓			✓			✓					✓	✓
NorthWestern Energy	NWE	Electric	Montana	✓		✓	✓			✓						K
NorthWestern Energy	NWE	Electric	South Dakota	✓			✓			✓						K
Oklahoma Gas and Electric Company	OGE	Electric	Arkansas	✓	P	✓	✓	✓	✓	✓		✓				K
Oklahoma Gas and Electric Company	OGE	Electric	Oklahoma	✓	P	✓	✓		✓	✓				✓		K
Arizona Public Service Company	PNW	Electric	Arizona	✓	P	✓	✓	✓	✓	✓				✓		K
Portland General Electric Company	POR	Electric	Oregon	✓	P		✓	✓	✓	✓					✓	✓
Alabama Power Company	SO	Electric	Alabama	✓			✓		✓	✓		✓		✓		K
Georgia Power Company	SO	Electric	Georgia	✓			✓	✓	✓	✓	✓				✓	✓
Mississippi Power Company	SO	Electric	Mississippi	✓	P		✓	✓		✓	✓	✓	✓	✓		K
Public Service Company of New Mexico	TXNM	Electric	New Mexico	✓			✓	✓								✓
Texas-New Mexico Power Company	TXNM	Electric	Texas			✓	✓			✓						
Public Service Company of Colorado	XEL	Electric	Colorado	✓	P	✓	✓	✓	✓	✓				✓		
Northern States Power Company - WI (Michigan)	XEL	Electric	Michigan	✓			✓	✓		✓					✓	✓
Northern States Power Company - MN	XEL	Electric	Minnesota	✓	F	✓	✓	✓	✓	✓	✓					✓
Southwestern Public Service Company	XEL	Electric	New Mexico	✓			✓	✓		✓						✓
Northern States Power Company - MN (North Dakota)	XEL	Electric	North Dakota	✓		✓		✓		✓				✓	✓	✓
Northern States Power Company - MN (South Dakota)	XEL	Electric	South Dakota	✓	P	✓	✓	✓	✓	✓						K
Southwestern Public Service Company	XEL	Electric	Texas	✓		✓	✓			✓						
Northern States Power Company - WI	XEL	Electric	Wisconsin	✓			✓								✓	✓

Louisville Gas & Electric and Kentucky Utilities
Adjustment Clauses and Alternative Forms of Rate Regulation Allowed for Exelon Utilities and Electric and Gas Proxy Group Subsidiaries

Company	Parent	Elec/Gas	State	Fuel / Purchased Power	Decoupling [1]	Capital Investment [2]	Energy Efficiency [3]	Renewables & RPS [4]	Environmental [5]	Other [6]	Multi-Year Rate Plan	Formula-Based Rates	Formula-Based ROE	Other Performance Based Ratemaking [7]	Earnings Sharing Mechanism	Forward Test Year Allowed in Jurisdiction [8]
Atmos Colorado	ATO	Gas	Colorado			✓										
Atmos Kansas	ATO	Gas	Kansas	✓	P	✓					✓			✓		
Atmos Kentucky	ATO	Gas	Kentucky	✓	P	✓					✓			✓		✓
Atmos Louisiana	ATO	Gas	Louisiana	✓	P	✓						✓				✓
Atmos Mississippi	ATO	Gas	Mississippi	✓	P	✓						✓				K
Atmos Tennessee	ATO	Gas	Tennessee	✓	P	✓				✓		✓		✓		✓
Atmos Pipeline	ATO	Gas	Texas	✓	P	✓						✓				K
Atmos Texas	ATO	Gas	Texas	✓	P	✓				✓		✓				K
Atmos Virginia	ATO	Gas	Virginia	✓	P	✓				✓						✓
New Jersey Natural Gas Company	NJR	Gas	New Jersey		P	✓	✓		✓							K
Northern Indiana Public Service Company, LLC	NI	Gas	Indiana	✓		✓	✓							✓		K
Columbia Gas of Kentucky, Inc.	NI	Gas	Kentucky	✓	P	✓	✓			✓						✓
Columbia Gas of Maryland, Inc.	NI	Gas	Maryland	✓	P	✓	✓									✓
Columbia Gas of Ohio, Inc.	NI	Gas	Ohio		P	✓	✓							✓		✓
Columbia Gas of Pennsylvania, Inc.	NI	Gas	Pennsylvania	✓	P	✓										✓
Columbia Gas of Virginia, Inc.	NI	Gas	Virginia	✓	P	✓	✓									✓
Northwest Natural Gas Company	NWN	Gas	Oregon	✓	P		✓		✓						✓	✓
Northwest Natural Gas Company	NWN	Gas	Washington	✓			✓		✓			✓				K
Kansas Gas Service Company, Inc.	OGS	Gas	Kansas	✓	P	✓						✓				
Oklahoma Natural Gas Company	OGS	Gas	Oklahoma	✓	P		✓					✓	✓	✓	✓	K
Texas Gas Service Company, Inc.	OGS	Gas	Texas	✓	P	✓	✓				✓	✓				K
Southwest Gas Arizona	SWX	Gas	Arizona	✓	F			✓			✓					K
Southwest Gas California	SWX	Gas	California	✓	F	✓	✓	✓			✓	✓	✓	✓		✓
Southwest Gas Nevada	SWX	Gas	Nevada	✓	F		✓	✓			✓					K
Spire Alabama Inc.	SR	Gas	Alabama	✓	P							✓	✓	✓		K
Spire Mississippi Inc.	SR	Gas	Mississippi	✓	P							✓	✓			K
Spire Missouri Inc.	SR	Gas	Missouri	✓	P	✓					✓					K
Louisville Gas & Electric		Electric	Kentucky	✓	P		✓	✓	✓							✓
Louisville Gas & Electric		Gas	Kentucky	✓	P	✓	✓							✓		✓
Kentucky Utilities		Electric	Kentucky	✓	P		✓	✓	✓							✓

Notes:
Note: A mechanism may cover one or more cost categories; therefore, designations may not indicate separate mechanisms for each category.

[1] Full or partial decoupling (such as Straight-Fixed Variable rate design, weather normalization clauses, and recovery of lost revenues as a result of Energy Efficiency programs).
[2] Includes recovery of costs related to targeted new generation projects, infrastructure replacement, system integrity/hardening, Smart Grid, AMI metering, and other capital expenditures.
[3] Utility-sponsored conservation, energy efficiency, load control, or other demand side management programs.
[4] Recovers costs associated with renewable energy projects, Distributed Energy Resources, REC purchases, net metering, RPS expense, and renewable PPAs.
[5] EPA upgrade costs, emissions control & allowance purchase costs, nuclear/coal plant decommissioning, and other costs to comply with state and federal environmental mandates.
[6] Cost recovery for items such as pension expenses, bad debt costs, storm costs, vegetation management, RTO/Transmission Expense, capacity costs, transmission costs, government & franchise fees and taxes, economic development, and low income programs.
[7] Includes other performance-incentive mechanisms.
[8] K = Known and Measurable. Partially forecasted test years are included.

Sources:
Edison Electric Institute (EEI) Innovative Regulatory Tools for Addressing an Increasingly Complex Energy Landscape: 2023 Update, February 2024; Regulatory Research Associates, Adjustment Clauses: A State-by-State Overview, July 18, 2022; Regulatory Research Associates Commission Profiles; SEC Form 10-Ks; Company Tariffs; Company Rate Filings.