

Exhibit No.:
Issues: Revenue Requirement/Rate of Return
Witness: Christopher C. Walters
Type of Exhibit: Direct Testimony
Sponsoring Party: Missouri Industrial Energy Consumers
Case No.: GR-2025-0107
Date Testimony Prepared: April 23, 2025

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

**In the Matter of Spire Missouri Inc. d/b/a Spire's
Request for Authority to Implement a General
Rate Increase for Natural Gas Service Provided
in the Company's Missouri Service Area**)
)
) **Case No. GR-2025-0107**
)
)

Direct Testimony and Schedules of

Christopher C. Walters

On behalf of

Missouri Industrial Energy Consumers

April 23, 2025



**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

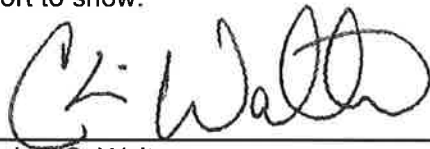
_____))
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Request for Authority to Implement a General) **Case No. GR-2025-0107**
Rate Increase for Natural Gas Service Provided))
in the Company's Missouri Service Area))
_____)

STATE OF MISSOURI)
) SS
COUNTY OF ST. LOUIS)

Affidavit of Christopher C. Walters

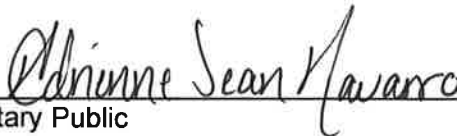
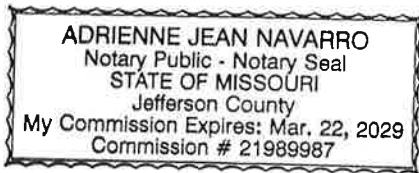
Christopher C. Walters, being first duly sworn, on his oath states:

1. My name is Christopher C. Walters. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 16690 Swingley Ridge Road, Suite 140, Chesterfield, Missouri 63017. We have been retained by the Missouri Industrial Energy Consumers in this proceeding on their behalf.
2. Attached hereto and made a part hereof for all purposes are my Direct Testimony and Schedules which were prepared in written form for introduction into evidence in Missouri Public Service Commission Case No. GR-2025-0107.
3. I hereby swear and affirm that the testimony and schedules are true and correct and that they show the matters and things that they purport to show.



Christopher C. Walters

Subscribed and sworn to before me this 23rd day of April, 2025.



Notary Public

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

In the Matter of Spire Missouri Inc. d/b/a Spire’s Request for Authority to Implement a General Rate Increase for Natural Gas Service Provided in the Company’s Missouri Service Area)) Case No. GR-2025-0107)))))))

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**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

In the Matter of Spire Missouri Inc. d/b/a Spire’s Request for Authority to Implement a General Rate Increase for Natural Gas Service Provided in the Company’s Missouri Service Area)))))))	Case No. GR-2025-0107
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Direct Testimony of Christopher C. Walters

1 **Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A Christopher C. Walters. My business address is 16690 Swingley Ridge Road,
3 Suite 140, Chesterfield, MO 63017.

4 **Q WHAT IS YOUR OCCUPATION?**

5 A I am a consultant in the field of public utility regulation and a Principal with the firm of
6 Brubaker & Associates, Inc. (“BAI”), energy, economic and regulatory consultants.

7 **Q PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.**

8 A This information is included in Appendix A to this testimony.

9 **Q ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?**

10 A This testimony is presented on behalf of the Missouri Industrial Energy
11 Consumers (“MIEC”), a non-profit corporation that represents the interests of large
12 consumers in Missouri utility rate matters.

**Christopher C. Walters
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1 **I. INTRODUCTION AND SUMMARY**

2 **Q WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

3 A The purpose of my testimony is to address a fair overall rate of return (“ROR”) including
4 a reasonable capital structure and return on equity (“ROE”).

5 My silence regarding any position taken by Spire Missouri Inc. (“Spire Missouri”
6 or “Company”) in its Application or Direct Testimonies in this proceeding does not
7 indicate my endorsement of that position.

8 **Q PLEASE SUMMARIZE YOUR TESTIMONY AND RECOMMENDATIONS.**

9 A In Section II of my testimony, I review and analyze the regulated utility industry’s access
10 to capital, credit rating trends, and outlooks, as well as the overall trend in the
11 authorized ROE for utilities throughout the country. I conclude that the trend in
12 authorized ROEs for utilities has declined over the last several years and has remained
13 below 10.0% in more recent history. I also review the impact that the Federal Reserve’s
14 (“the Fed”) monetary policy actions have had on the cost of capital.

15 In Section III of my testimony, I address the Company’s proposed capital
16 structure, cost of debt, outline how a fair ROE should be established, provide an
17 overview of the market’s perception of the Company’s investment risk, and present the
18 analyses I relied on to estimate an appropriate ROE for Spire Missouri. Based on the
19 results of several cost of equity estimation methods performed on publicly traded utility
20 companies, I estimate the current fair market ROE for the Company to fall within the
21 range of 9.00% to 9.90%. Based on my assessment of the Company’s overall risk
22 profile and the results of the analytical methods, I recommend Spire Missouri be
23 awarded an ROE of 9.45%, which is the mid-point of my estimated range. I also discuss
24 the risk-reducing effect of the Company’s proposal to expand its current revenue

Christopher C. Walters
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1 decoupling mechanism (i.e., the Weather Normalization Adjustment Rider or “WNRA”)
2 to also account for energy conservation by customers through the Distribution Service
3 Adjustment (“DSA”). In addition to the Company’s proposal to implement the DSA,
4 recently enacted Missouri legislation includes several elements that also reduce the
5 Company’s overall risk profile.

6 Based on all the foregoing, I recommend the Missouri Public Service
7 Commission (“Commission”) adopt the following recommendations:

- 8 1. Reject Spire Missouri’s proposed ROE of 10.50% and instead adopt my
9 recommended ROE of 9.45%, which is based on my assessment of the current and
10 expected capital market environment, the Company’s overall risk profile, and the
11 results of several analytical methods which I have analyzed, to determine a fair and
12 reasonable ROE to be authorized for Spire Missouri. Should the Commission allow
13 for the implementation of the DSA, an ROE in the lower half of my recommended
14 range would be warranted.
- 15 2. Reject Spire Missouri’s proposed common equity ratio of 55.00%. I recommend
16 the Commission authorize a common equity ratio of 53.2%, consistent with Spire
17 Missouri’s actual capital structure.
- 18 3. My recommendations produce an overall ratemaking ROR of 7.02% and would
19 reduce the Company’s requested revenue requirement by \$39.7 million.

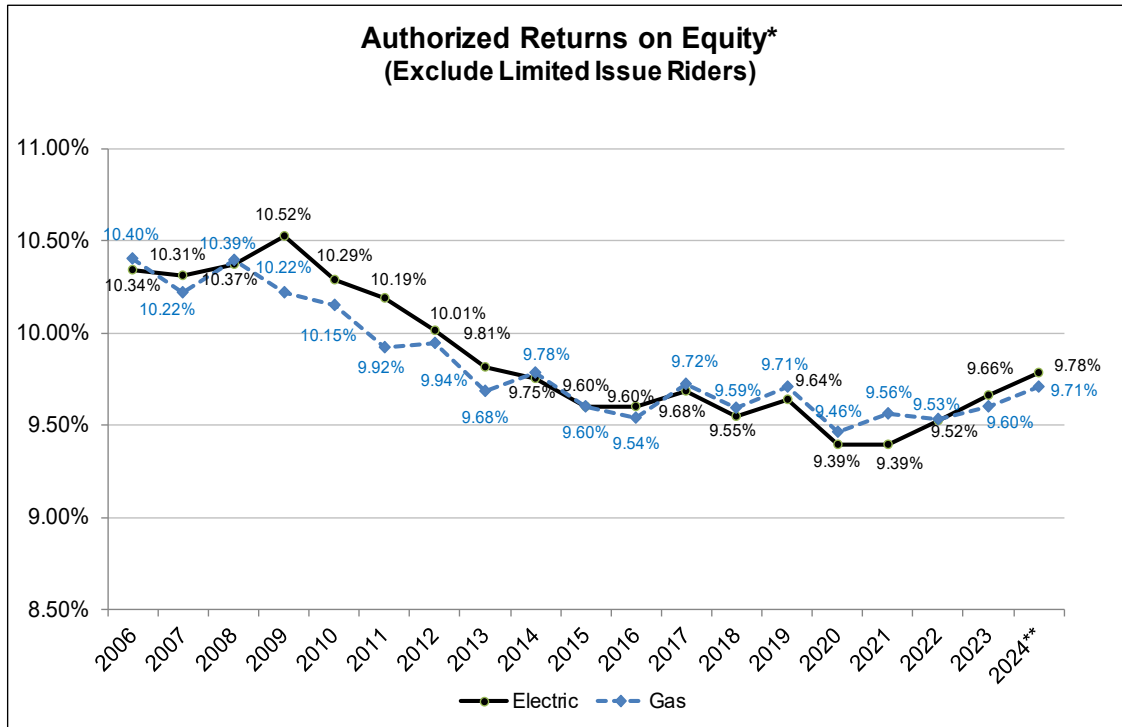
20 **II. INDUSTRY TRENDS** 21 **AND ECONOMIC ENVIRONMENT**

22 **A. Regulated Utility Industry Authorized** 23 **ROEs, Access to Capital, and Credit Strength**

24 **Q PLEASE DESCRIBE THE OBSERVABLE EVIDENCE ON TRENDS IN**
25 **AUTHORIZED ROEs FOR ELECTRIC AND GAS UTILITIES.**

26 **A** Authorized ROEs for both electric and gas utilities have declined over the last 10 years,
27 as illustrated in Figure CCW-1, and have been below 10.0% for about the last
28 nine years.

FIGURE CCW-1



Source and Notes:

* Electric Returns exclude Limited Issue Riders.

** S&P Global Market Intelligence, RRA Regulatory Focus, Major Rate Case Decisions -- January - December 2024, February 3, 2025 at page 3.

- 1 **Q PLEASE DESCRIBE THE DISTRIBUTION OF AUTHORIZED ROEs FOR ELECTRIC**
 2 **UTILITIES FOR THE LAST FEW YEARS.**
 3 **A** The distribution of authorized returns, annually, since 2016 is summarized in Table
 4 **CCW-1.**

TABLE CCW-1

Distribution of Authorized ROEs

Line	Year	Natural Gas¹			
		Average	Median	Share of Decisions ≤ 9.5%	Share of Decisions ≤ 9.7%
	(1)	(2)	(3)	(4)	(5)
1	2016	9.53%	9.50%	56.00%	72.00%
2	2017	9.73%	9.60%	39.13%	69.57%
3	2018	9.59%	9.60%	46.15%	66.67%
4	2019	9.73%	9.73%	19.35%	48.39%
5	2020	9.47%	9.44%	60.00%	77.14%
6	2021	9.56%	9.60%	44.19%	67.44%
7	2022	9.53%	9.60%	48.48%	75.76%
8	2023	9.60%	9.55%	45.95%	72.97%
9	2024	9.71%	9.73%	32.50%	50.00%
10	2025	9.71%	9.75%	20.00%	40.00%

Source and Notes:

¹ S&P Global Market Intelligence, data through March 21, 2025.

² S&P Global Market Intelligence, data through December 31, 2024.

- Excludes limited issue rider cases.

1 The distribution shows that over the last few years, the majority of authorized
2 ROEs since 2016 have been below 9.7%, with many of those being below 9.5%.

1 **Q HOW HAS THE AUTHORIZED COMMON EQUITY RATIO FLUCTUATED OVER**
2 **THE SAME TIME PERIOD FOR UTILITIES?**

3 A In general, the utility industry's common equity ratio has not really deviated too much
4 from the range of 50.0% to 52.0%. As shown in Table CCW-2 below, I have provided
5 the authorized common equity ratios for utilities around the country, excluding the
6 reported common equity ratios for Arkansas, Florida, Indiana, and Michigan. For my
7 overall market analysis, I have excluded the reported authorized common equity ratios
8 for these states because these jurisdictions include sources of capital outside of
9 investor-supplied capital such as accumulated deferred income taxes. As such, the
10 reported common equity ratios in these states would result in a downward bias in the
11 reported permanent common equity ratios authorized for ratemaking purposes within
12 my trend analysis.

TABLE CCW-2

Trends in State Authorized Common Equity Ratios
(Industry)

<u>Line</u>	<u>Year</u> (1)	<u>Electric</u> ¹		<u>Natural Gas</u> ¹		<u>Water</u> ²	
		<u>Average</u> (2)	<u>Median</u> (3)	<u>Average</u> (4)	<u>Median</u> (5)	<u>Average</u> (6)	<u>Median</u> (7)
1	2013	50.12%	51.03%	51.16%	50.43%	48.34%	48.66%
2	2014	50.28%	50.00%	51.90%	51.99%	49.69%	50.27%
3	2015	49.89%	50.47%	49.79%	50.33%	51.52%	51.68%
4	2016	49.70%	49.99%	51.85%	51.35%	50.65%	50.77%
5	2017	50.02%	49.85%	51.13%	51.76%	48.43%	46.09%
6	2018	50.60%	50.23%	51.56%	51.51%	52.41%	53.22%
7	2019	51.55%	51.37%	52.81%	52.42%	50.75%	50.35%
8	2020	50.93%	51.17%	52.34%	52.00%	49.75%	49.10%
9	2021	51.01%	52.00%	51.90%	52.00%	51.96%	52.73%
10	2022	51.57%	51.92%	51.65%	52.00%	51.53%	51.15%
11	2023	51.59%	52.27%	52.45%	52.00%	52.53%	53.40%
12	2024	51.07%	52.10%	52.25%	52.40%	52.02%	52.13%
13	2025	50.21%	50.00%	50.46%	50.00%		
11	Min	49.70%	49.85%	49.79%	50.00%	48.34%	0.46%
12	Max	51.59%	52.27%	52.81%	52.42%	52.53%	0.53%
14	Average	50.66%	50.95%	51.64%	51.55%	50.80%	0.51%
15	Median	50.60%	51.03%	51.85%	51.99%	51.13%	0.51%

Source and Notes:

¹ S&P Global Market Intelligence; data through March 21, 2025.

² S&P Global Market Intelligence; data through December 31, 2024.

- Excludes Arkansas, Florida, Indiana and Michigan because they include non-investor capital.

1 **Q HAVE REGULATED UTILITY COMPANIES BEEN ABLE TO MAINTAIN**
2 **RELATIVELY STRONG CREDIT RATINGS DURING PERIODS OF DECLINING**
3 **AUTHORIZED ROEs?**

4 **A** Yes. As shown below in Table CCW-3, the credit ratings of the industry have improved
5 since 2009. In 2009, approximately 75% of the industry was rated BBB+ or higher.
6 Currently, 87% of the industry has a rating of BBB+ or higher.

TABLE CCW-3

S&P Ratings by Category
Natural Gas and Water Utility Subsidiaries
 (Year End)

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
A or higher	50%	50%	50%	50%	38%	33%	33%	44%	56%	33%	38%	38%	13%	15%	17%	14%
A-	0%	0%	0%	0%	38%	33%	33%	22%	11%	11%	38%	38%	38%	38%	38%	35%
BBB+	25%	25%	38%	38%	13%	22%	33%	33%	33%	44%	13%	13%	25%	30%	29%	38%
BBB	13%	13%	0%	0%	0%	0%	0%	0%	0%	11%	13%	13%	25%	18%	16%	12%
BBB-	13%	13%	13%	13%	13%	11%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Below BBB-	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: S&P CAPITAL IQ and Market Intelligence, data retrieved 12/31/2024.
 Note: Subsidiary ratings used.

1 **Q HAVE UTILITIES BEEN ABLE TO ACCESS EXTERNAL CAPITAL TO SUPPORT**
 2 **CAPITAL EXPENDITURE PROGRAMS?**

3 **A** Yes. Regulatory Research Associates’ (“RRA”) October 22, 2024 Utility Capital
 4 Expenditures report, *RRA Financial Focus*, a division of *S&P Global Market*
 5 *Intelligence*, made several relevant comments about utility investments generally:¹

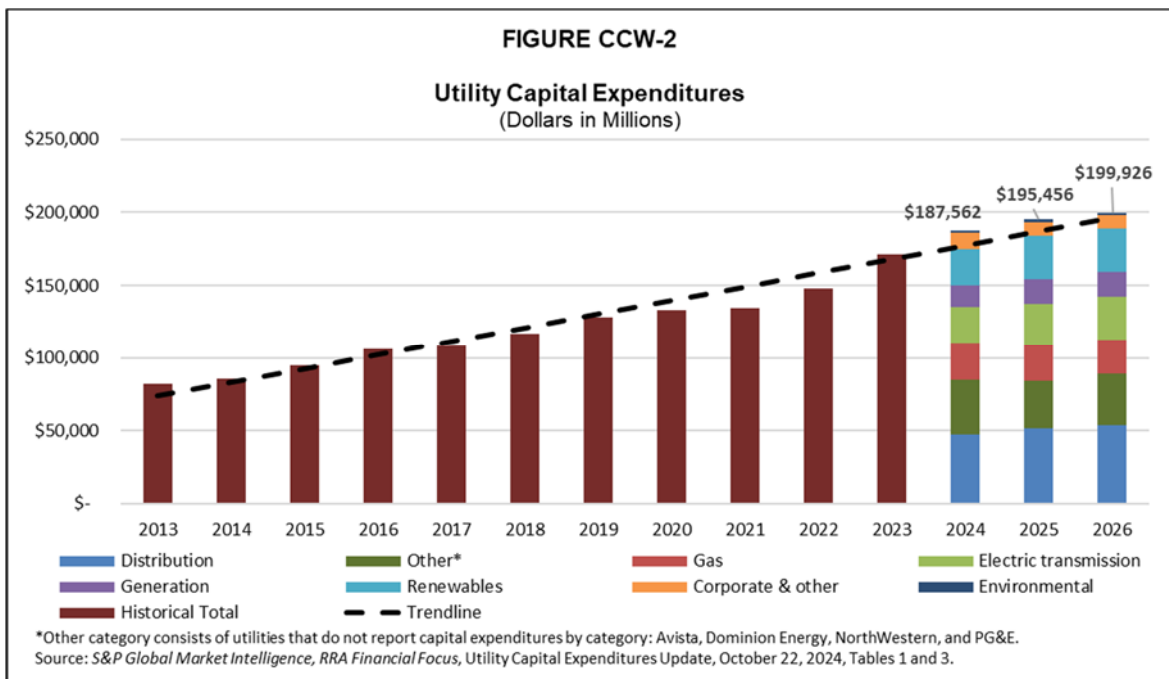
- 6 • Energy utility capex estimates for 2025, 2026 and 2027 indicate
 7 successively higher spending levels, reaching \$192 billion,
 8 \$196.5 billion and \$197 billion, respectively. Spending in these
 9 years is likely to increase further, as the companies’ plans for future
 10 projects continue to solidify around federal and state legislation
 11 supporting infrastructure investment.
- 12 • Multiple drivers are expected to elevate utility capital expenditures
 13 over the next several years. Pent-up demand to replace aging
 14 equipment is already pushing utilities to make considerable
 15 investments in infrastructure. Meanwhile, the renewable energy
 16 portfolio standards for multiple states continue to ramp up, with the
 17 plans specifying large expansions of low-carbon energy generation
 18 capacity. Amplifying these factors are federal infrastructure
 19 investment plans, including the Inflation Reduction Act of 2022,
 20 which aim to convert the US power generation network to a majority
 21 of zero-carbon sources by 2035.
- 22 • Forecast aggregate utility investments in 2025, 2026 and 2027 are
 23 expected to reach new records of \$192 billion, \$196.5 billion and
 24 \$197 billion, respectively. The increases are being driven in large

¹S&P *Global Market Intelligence*, *RRA Financial Focus*: “Utility capital expenditures update,” October 22, 2024.

part by federal legislation enacted in 2021 and 2022, supporting infrastructure investment and state-level energy transition plans and incentives, as well as robust growth in demand from datacenters, as the explosion in implementation of AI and cloud computing continues.

- Utilities have multiple opportunities to finance and support energy investments through mechanisms available within the Inflation Reduction Act and the Infrastructure Investment and Jobs Act of 2021. These pieces of legislation provide billions of dollars for power infrastructure investments, financial incentives for nuclear power plants and funding for battery storage technology, among other provisions.

As shown in Figure CCW-2, capital expenditures for the regulated electric and natural gas delivery utilities have increased considerably over the period 2023 into 2024, and the forecasted capital expenditures remain elevated through the end of 2026.



As demonstrated in Figure CCW-2 above, and in the comments made by RRA S&P Global Market Intelligence, capital investments for the utility industry continue to stay at elevated levels, and these capital expenditures are expected to fuel utilities' profit growth into the foreseeable future. This is clear evidence that the capital

1 investments are enhancing shareholder value and are attracting both equity and debt
2 capital to the utility industry in a manner that allows for funding these elevated capital
3 investments. While capital markets embrace these profit-driven capital investments,
4 regulatory commissions also must be careful to maintain reasonable prices and tariff
5 terms and conditions to protect customers' need for reliable utility service at reasonable
6 rates. If this is not done, utility rates will expand beyond the ability of customers to pay,
7 resulting in revenue constraints for utilities, which will impact their financial integrity.

8 **Q IS THERE EVIDENCE OF ROBUST VALUATIONS OF REGULATED UTILITY**
9 **EQUITY SECURITIES?**

10 A Yes. Strong valuations demonstrate that utilities can issue securities at favorable
11 prices and price multiples, signaling their ability to access equity capital on reasonable
12 terms and at a relatively low cost. As shown on Schedule CCW-1, the historical
13 valuation of utilities followed by *The Value Line Investment Survey* ("Value Line"),
14 based on a Price-to-Earnings ("P/E") ratio, Price-to-Cash Flow ("P/CF") ratio, and
15 Market Price-to-Book value ("M/B") ratio, indicates utility security valuations today are
16 very strong and robust relative to the last several years. These strong valuations of
17 utility stocks indicate that utilities have access to equity capital under reasonable terms
18 and at lower costs.

19 **Q WHAT CONCLUSION DO YOU DRAW FROM THIS OBSERVABLE MARKET DATA**
20 **IN FORMING YOUR RECOMMENDED ROE AND OVERALL ROR?**

21 A Generally, authorized ROEs, credit standing, and access to capital have been quite
22 robust for utilities over the last several years, even throughout the duration of the global

1 pandemic. It is critical that this Commission ensure that utility rates are increased no
2 more than necessary to provide fair compensation and maintain financial integrity.

3 **B. Impact of Monetary Policy**

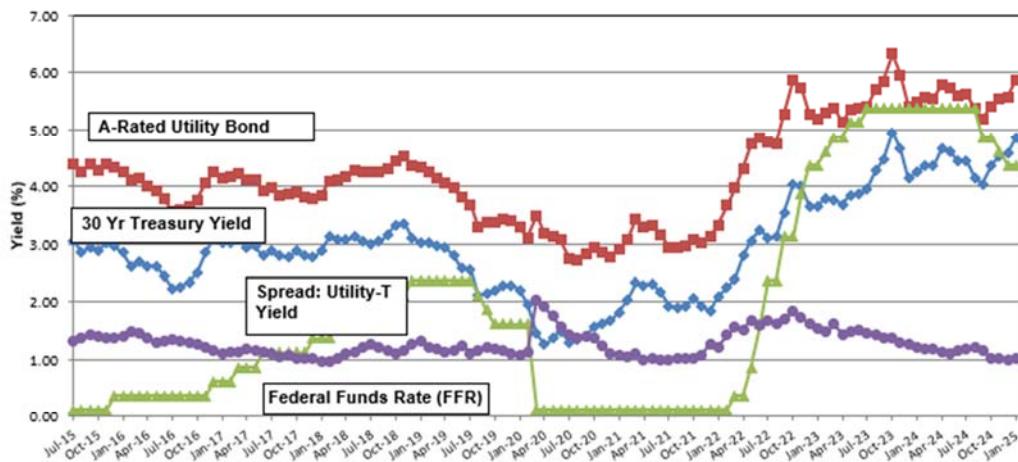
4 **Q ARE THE FEDERAL OPEN MARKET COMMITTEE'S ("FOMC") ACTIONS KNOWN**
5 **TO THE MARKET PARTICIPANTS, AND IS IT REASONABLE TO BELIEVE THEY**
6 **ARE REFLECTED IN THE MARKET'S VALUATION OF BOTH DEBT AND EQUITY**
7 **SECURITIES?**

8 **A** Yes, to both questions. The Fed has been transparent about its efforts to support the
9 economy to achieve maximum employment, and to manage long-term inflation to
10 around a 2% level. The Fed has implemented procedures to support the economy's
11 efforts to achieve these policy objectives. Specifically, the Fed had previously lowered
12 the Federal Overnight Rate for securities and had engaged in a Quantitative Easing
13 program where the Fed was buying, monthly, Treasury and mortgage-backed
14 securities in order to moderate the demand in the marketplaces and support the
15 economy. Currently, the Fed is reducing its holdings of Treasury securities and agency
16 debt and agency mortgage-backed securities. Such monetary policy actions include
17 raising the target federal funds rate and allowing maturing bonds to roll off its balance
18 sheet.

19 A visualization of the market's reaction to the Fed's actions on the federal funds
20 rate is shown below in Figure CCW-3.

FIGURE CCW-3

Timeline of Federal Funds Rate Changes Since 2015



Fed FFR Actions:

1	December 2015	0.25	→	0.50	15	March 2022	0.25	→	0.50
2	December 2016	0.50	→	0.75	16	May 2022	0.75	→	1.00
3	March 2017	0.75	→	1.00	17	June 2022	1.50	→	1.75
4	June 2017	1.00	→	1.25	18	July 2022	2.25	→	2.50
5	December 2017	1.25	→	1.50	19	September 2022	3.00	→	3.25
6	March 2018	1.50	→	1.75	20	November 2022	3.75	→	4.00
7	June 2018	1.75	→	2.00	21	December 2022	4.25	→	4.50
8	September 2018	2.00	→	2.25	22	February 2023	4.50	→	4.75
9	December 2018	2.25	→	2.50	23	March 2023	4.75	→	5.00
10	August 2019	2.00	→	2.25	24	May 2023	5.00	→	5.25
11	September 2019	1.75	→	2.00	25	July 2023	5.25	→	5.50
12	October 2019	1.50	→	1.75	26	September 2024	4.75	→	5.00
13	March 2020	1.00	→	1.25	27	November 2024	4.50	→	4.75
14	March 2020	0.00	→	0.25	28	December 2024	4.25	→	4.50

Sources:

Federal Reserve Bank of New York, <https://apps.newyorkfed.org/markets/autorates/fed-funds-search-page>

Board of Governors of the Federal Reserve System, <https://www.federalreserve.gov/datadownload/>

Mergent Bond Record.

1 As shown in Figure CCW-3 above, the rise in the federal funds rate has far
 2 outpaced the rise in Utility and Treasury yields while the spread of Utility bonds over
 3 Treasury bond yields have stabilized recently.

4 **Q HAS THE FED MADE RECENT COMMENTS CONCERNING MONETARY POLICY**
 5 **AND THE POTENTIAL IMPACT ON INTEREST RATES?**

6 **A** Yes. On March 19, 2025, the FOMC released the following statement:

7 Recent indicators suggest that economic activity has continued to
 8 expand at a solid pace. The unemployment rate has stabilized at a low

1 level in recent months, and labor market conditions remain solid.
2 Inflation remains somewhat elevated.

3 The Committee seeks to achieve maximum employment and inflation at
4 the rate of 2 percent over the longer run. Uncertainty around the
5 economic outlook has increased. The Committee is attentive to the risks
6 to both sides of its dual mandate.

7 In support of its goals, the Committee decided to maintain the target
8 range for the federal funds rate at 4-1/4 to 4-1/2 percent. In considering
9 the extent and timing of additional adjustments to the target range for
10 the federal funds rate, the Committee will carefully assess incoming
11 data, the evolving outlook, and the balance of risks. The Committee will
12 continue reducing its holdings of Treasury securities and agency debt
13 and agency mortgage-backed securities. Beginning in April, the
14 Committee will slow the pace of decline of its securities holdings by
15 reducing the monthly redemption cap on Treasury securities from
16 \$25 billion to \$5 billion. The Committee will maintain the monthly
17 redemption cap on agency debt and agency mortgage-backed
18 securities at \$35 billion. The Committee is strongly committed to
19 supporting maximum employment and returning inflation to its 2 percent
20 objective.

21 In assessing the appropriate stance of monetary policy, the Committee
22 will continue to monitor the implications of incoming information for the
23 economic outlook. The Committee would be prepared to adjust the
24 stance of monetary policy as appropriate if risks emerge that could
25 impede the attainment of the Committee's goals. The Committee's
26 assessments will take into account a wide range of information,
27 including readings on labor market conditions, inflation pressures and
28 inflation expectations, and financial and international developments.²

29 The above quote suggests economic activity is expanding solidly, with solid
30 labor market conditions though inflation remains somewhat elevated. To support its
31 goals of maximum employment and 2% inflation, the Fed is maintaining the federal
32 funds rate target range at 4.25% to 4.5%. It will continue reducing its securities
33 holdings but will slow the pace of Treasury redemptions from \$25 billion to \$5 billion
34 per month starting in April, while keeping agency debt and MBS redemptions at
35 \$35 billion per month.

²[Federal Reserve Board - Federal Reserve issues FOMC statement](#), March 19, 2025.

1 Q WHAT DO INDEPENDENT ECONOMISTS' OUTLOOKS FOR FUTURE INTEREST
2 RATES INDICATE?

3 A Independent economists, surveyed by *Blue Chip Financial Forecasts*, expect current
4 capital costs to remain relatively flat to marginally increase over the near term, while
5 maintaining levels that are still relatively low by historical standards. For example,
6 independent projections show that the consensus is the federal funds rate will decrease
7 while long-term interest rates, as measured by the 30-year Treasury bond, are
8 expected to remain relatively flat. Inflation, as measured through the Gross Domestic
9 Product ("GDP") price index, is expected to be a mix of marginal increases and
10 decreases over the near to intermediate term. The consensus projections for the next
11 several quarters are provided in Table CCW-4 below.

TABLE CCW-4

Blue Chip Financial Forecasts
Projected Federal Funds Rate, 30-Year Treasury Bond Yields, and GDP Price Index

<u>Publication Date</u>	<u>4Q</u> <u>2023</u>	<u>1Q</u> <u>2024</u>	<u>2Q</u> <u>2024</u>	<u>3Q</u> <u>2024</u>	<u>4Q</u> <u>2024</u>	<u>1Q</u> <u>2025</u>	<u>2Q</u> <u>2025</u>	<u>3Q</u> <u>2025</u>	<u>4Q</u> <u>2025</u>	<u>1Q</u> <u>2026</u>	<u>2Q</u> <u>2026</u>
<u>Federal Funds Rate</u>											
Mar-24	5.3	5.4	5.2	4.9	4.5	4.2	3.8				
Apr-24		5.3	5.2	5.0	4.6	4.2	3.9	3.7			
May-24		5.3	5.4	5.2	4.9	4.6	4.3	4.0			
Jun-24		5.3	5.4	5.2	5.0	4.7	4.4	4.1			
Jul-24			5.3	5.3	5.0	4.7	4.4	4.1	3.9		
Aug-24			5.3	5.3	5.0	4.7	4.4	4.1	3.9		
Sep-24			5.3	5.2	4.8	4.4	4.0	3.8	3.6		
Oct-24				5.3	4.6	4.1	3.8	3.5	3.3	3.3	
Nov-24				5.3	4.6	4.1	3.8	3.5	3.3	3.2	
Dec-24				5.3	4.6	4.2	3.9	3.7	3.6	3.5	
Jan-25					4.7	4.3	4.1	3.9	3.8	3.7	3.5
Feb-25					4.7	4.3	4.2	4.0	3.9	3.8	3.6
Mar-25					4.7	4.4	4.3	4.1	4.0	3.9	3.8
<u>T-Bond, 30 yr.</u>											
Mar-24	4.6	4.4	4.3	4.2	4.2	4.1	4.1				
Apr-24		4.3	4.3	4.2	4.2	4.1	4.1	4.0			
May-24		4.3	4.6	4.5	4.4	4.3	4.2	4.2			
Jun-24		4.3	4.6	4.5	4.5	4.4	4.3	4.3			
Jul-24			4.6	4.5	4.4	4.4	4.3	4.3	4.2		
Aug-24			4.6	4.5	4.4	4.4	4.3	4.3	4.3		
Sep-24			4.6	4.2	4.2	4.1	4.1	4.1	4.1		
Oct-24				4.2	4.1	4.0	4.0	4.0	4.1	4.0	
Nov-24				4.2	4.3	4.2	4.2	4.2	4.2	4.2	
Dec-24				4.2	4.5	4.5	4.4	4.4	4.4	4.4	
Jan-25					4.5	4.6	4.5	4.5	4.5	4.5	4.4
Feb-25					4.5	4.7	4.7	4.7	4.7	4.6	4.6
Mar-25					4.5	4.7	4.7	4.7	4.6	4.6	4.6
<u>GDP Price Index</u>											
Mar-24	1.6	2.2	2.3	2.2	2.2	2.1	2.1				
Apr-24		2.2	2.4	2.3	2.2	2.2	2.1	2.2			
May-24		3.1	2.7	2.4	2.3	2.3	2.2	2.2			
Jun-24		3.0	2.8	2.5	2.3	2.3	2.3	2.2			
Jul-24			2.8	2.3	2.3	2.4	2.2	2.2	2.1		
Aug-24			2.3	2.3	2.3	2.3	2.2	2.2	2.1		
Sep-24			2.5	2.2	2.2	2.3	2.2	2.2	2.1		
Oct-24				2.2	2.0	2.2	2.2	2.1	2.1	2.1	
Nov-24				1.8	2.1	2.2	2.1	2.1	2.1	2.2	
Dec-24				1.8	2.2	2.3	2.2	2.2	2.3	2.3	
Jan-25					2.2	2.3	2.4	2.4	2.5	2.6	2.1
Feb-25					2.2	2.5	2.5	2.5	2.5	2.5	2.1
Mar-25					2.4	2.7	2.5	2.5	2.5	2.5	2.2

Source and Note:

Blue Chip Financial Forecasts, February 2023 through March 2025.

Actual Yields in Bold.

- 1 Further, the outlook for long-term interest rates in the intermediate to long term
- 2 is also impacted by the current Fed actions and the expectation that eventually the

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1 Fed's monetary actions will return to more normal levels. Long-term interest rate
 2 projections are illustrated in Table CCW-5 below.

TABLE CCW-5			
<u>30-Year Treasury Bond Yield Actual Vs. Projection</u>			
<u>Description</u>	<u>Actual</u>	<u>Near-Term Projected*</u>	<u>5- to 10-Year Projected</u>
<u>2020</u>			
Q1	1.88%	2.57%	
Q2	1.38%	1.90%	3.0% - 3.8%
Q3	1.36%	1.87%	
Q4	1.62%	1.97%	2.8% - 3.6%
<u>2021</u>			
Q1	2.07%	2.23%	
Q2	2.26%	2.77%	3.5% - 3.9%
Q3	1.93%	2.63%	
Q4	1.95%	2.70%	3.4% - 3.8%
<u>2022</u>			
Q1	2.25%	2.87%	
Q2	3.04%	3.47%	3.8% - 3.9%
Q3	3.26%	3.63%	
Q4	3.90%	3.87%	3.9% - 4.0%
<u>2023</u>			
Q1	3.74%	3.77%	
Q2	3.80%	3.70%	3.8% - 3.9%
Q3	4.24%	3.83%	
Q4	4.58%	4.17%	4.1% - 4.2%
<u>2024</u>			
Q1	4.33%	4.03%	
Q2	4.57%	4.17%	4.3% - 4.4%
Q3	4.22%	4.20%	
Q4	4.50%	4.20%	4.3% - 4.2%

Source and Note:
Blue Chip Financial Forecasts, January 2019 through
 March 2025.
 *Average of all 3 reports in Quarter.

1 As outlined in Table CCW-5 above, the outlook for interest rates has moderated
2 more recently relative to 2020 and part of 2021. For example, when actual interest
3 rates were in the range of 1.4% to 2.1%, the near-term projections for 30-year Treasury
4 yields ranged from 1.9% to 2.8% in 2020-2021, while the projections five to ten years
5 out were in the range of 2.8% to 3.9%. Most recently, actual interest rates were
6 approximately 4.5%, with near and intermediate projections in the range of 4.2%
7 to 4.3%.

8 **C. Market Sentiments and Utility Industry Outlook**

9 **Q PLEASE DESCRIBE THE CREDIT RATING OUTLOOK FOR REGULATED**
10 **UTILITIES.**

11 **A** All credit rating agencies see rate affordability as an important consideration in
12 assessing utility credit, including Standard & Poor's ("S&P") and Moody's Investors
13 Service ("Moody's") as discussed below.

14 In its 2025 Outlook,³ S&P reports that North American regulated utilities face
15 continued credit pressure due to elevated capital spending, persistent cash flow deficits
16 (exceeding \$100 billion), and increasing physical risks such as wildfires and extreme
17 weather. In 2024, downgrades again outpaced upgrades, a five-year trend driven by
18 high capex, rising wildfire risk, and uneven regulatory outcomes. Despite ongoing
19 investment in the energy transition and data center growth (which may modestly lift
20 electricity sales by ~1% annually), financial metrics are deteriorating due to
21 underwhelming common equity issuance and high leverage. Hybrid security issuance
22 hit a record \$26 billion in 2024 and is expected to continue helping credit support.

³S&P Global Credit Ratings, "Industry Credit Outlook 2025 – North America Regulated Utilities", January 14, 2025.

1 Regulatory frameworks remain broadly credit supportive, though S&P downgraded its
2 view of Connecticut due to inconsistent returns and rising lag. Customer bill
3 affordability remains a key consideration, especially as capacity prices rise and new
4 infrastructure costs must be equitably allocated. Wildfire risk—particularly litigation and
5 insurance constraints—is becoming a systemic credit concern, now affecting nearly all
6 regions. S&P made several specific observations about affordability in the context of
7 regulated utilities’ credit quality:

- 8 1. Electric bills as a share of household income: S&P noted that the
9 average electric customer bill is about 2% of U.S. median household
10 income, which it characterizes as “good value” relative to other
11 typical household expenses. Preserving this affordability is critical
12 to maintaining the industry’s credit quality, as it underpins public and
13 regulatory support.
- 14 2. Risk from cost shifts due to data centers: S&P cautioned that if
15 utilities assign a significant portion of new infrastructure costs related
16 to data center growth to existing residential customers, it could lead
17 to higher customer bills. This would, in turn, pressure regulators to
18 limit future rate case increases, potentially impairing utilities’ ability
19 to recover costs or earn authorized returns.
- 20 3. Capacity price increases: S&P warned that higher PJM capacity
21 prices—which are directly passed on to customers—could result in
22 greater customer dissatisfaction. This could prompt regulators to
23 limit increases in other parts of the customer bill, indirectly
24 constraining utilities’ ability to maintain financial performance and
25 manage regulatory risk.

26 In sum, S&P views affordability as a cornerstone issue for the sector: sustained
27 rate increases or cost shifts that threaten affordability could erode regulatory support,
28 triggering credit risk.

29 In a recent industry report, Moody’s explained that the regulated electric and
30 gas utilities’ outlook remains “Negative” largely due to increased pricing pressures on
31 customers. Moody’s stated that it changed its outlook from “Positive” to “Negative” due
32 to the following:

1 We have revised our outlook on the US regulated utilities sector to
2 negative from stable. We changed the outlook because of increasingly
3 challenging business and financial conditions stemming from higher
4 natural gas prices, inflation and rising interest rates. These
5 developments raise residential customer affordability issues, increasing
6 the level of uncertainty with regard to the timely recovery of costs for fuel
7 and purchased power, as well as for rate cases more broadly.⁴

8 Also, in a report published in January of 2024, S&P specifically mentioned
9 commodity price volatility, in combination with significant increases in capital
10 investments, driving utility rate increases which may strain affordability concerns.⁵

11 Finally, Fitch opined that the regulated electric and gas utilities' outlook is
12 deteriorating due to elevated capex that put pressure on credit metrics. Fitch also notes
13 the bill affordability concerns for ratepayers, and regulators' ability to balance the rate
14 requests with increasing customer bills.

15 Specifically, Fitch states:

16 Fitch Ratings' deteriorating outlook for the North American Utilities,
17 Power & Gas sector reflects continuing macroeconomic headwinds and
18 elevated capex that are putting pressure on credit metrics in the
19 high-cost funding environment. Bill affordability concerns for ratepayers
20 continue to persist despite the pull back in natural gas prices and
21 inflationary pressures. Fitch expects utility capex to grow by double
22 digits in 2024, underpinned by investments needed to make the electric
23 infrastructure more resilient against extreme weather events and to
24 accommodate renewable generation, including distributed sources.
25 Rate case outcomes are key to watch as regulators balance more rate
26 requests with increases in customer bills. Authorized ROEs could prove
27 to be sticky despite an increase in cost of capital. Higher
28 weather-normalized retail electricity sales, driven by datacenter growth
29 and onshoring of manufacturing activities, and tax transferability
30 provisions of the Inflation Reduction Act could somewhat offset
31 headwinds to utilities. Ongoing management actions to sell assets and
32 issue equity, in some cases, is supportive of parent companies' ratings.
33 Within Fitch's coverage, 90% of ratings hold Stable Rating Outlooks.
34 We expect limited rating movement in 2024. The number of upgrades
35 in 2023 so far exceeds the number of downgrades, and is driven by

⁴*Moody's Investors Service Outlook*: "Regulated Electric and Gas Utilities – US 2023 outlook negative due to higher natural gas prices, inflation and rising interest rates," November 10, 2022 at 1. (Emphasis Added).

⁵*S&P Global Ratings*: "Industry Credit Outlook 2024: North America Regulated Utilities," January 9, 2024, at 8.

1 positive rating actions on several parent holding companies and their
2 regulated subsidiaries.⁶

3 As outlined by Moody's, S&P, and Fitch above, credit analysts are focusing on
4 rate affordability as an important factor needed to support strong credit standing.
5 Customers must be able to afford to pay their utility bills in order for utilities to maintain
6 their financial integrity and strong investment grade credit standing. For this reason,
7 this Commission should carefully assess the reasonableness of cost of service in this
8 proceeding, including an appropriate overall ROR necessitated by a reasonably
9 cost-effective balanced ratemaking capital structure, and a ROE that represents fair
10 compensation but also maintains competitive, just, and reasonable rates.

11 **D. Additional Remarks**

12 **Q IN LIGHT OF HIGHER LEVELS OF INFLATION, EXPECTATIONS OF HIGHER**
13 **INTEREST RATES, AND GEOPOLITICAL EVENTS AROUND THE WORLD, HOW**
14 **HAS THE MARKET PERCEIVED UTILITIES AS INVESTMENT OPTIONS?**

15 A Since the beginning of the second half of 2021, the natural gas utility sector has
16 significantly outperformed the S&P 500, with a total return of 70.24% compared to the
17 market's total return of 39.56%. This is presented below in Figure CCW-4. It is
18 important to note that the S&P 500's strong performance in 2023 and early 2024 was
19 largely driven by a small group of "mega-cap" companies known as the Magnificent 7.
20 The Magnificent 7's stocks were among the most valuable companies in the S&P 500
21 index and rallied significantly over this time. Those seven stocks accounted for a
22 majority of the S&P 500's returns even though there were 493 other companies in the
23 index. This is because the S&P 500 is a market capitalization-weighted index, meaning

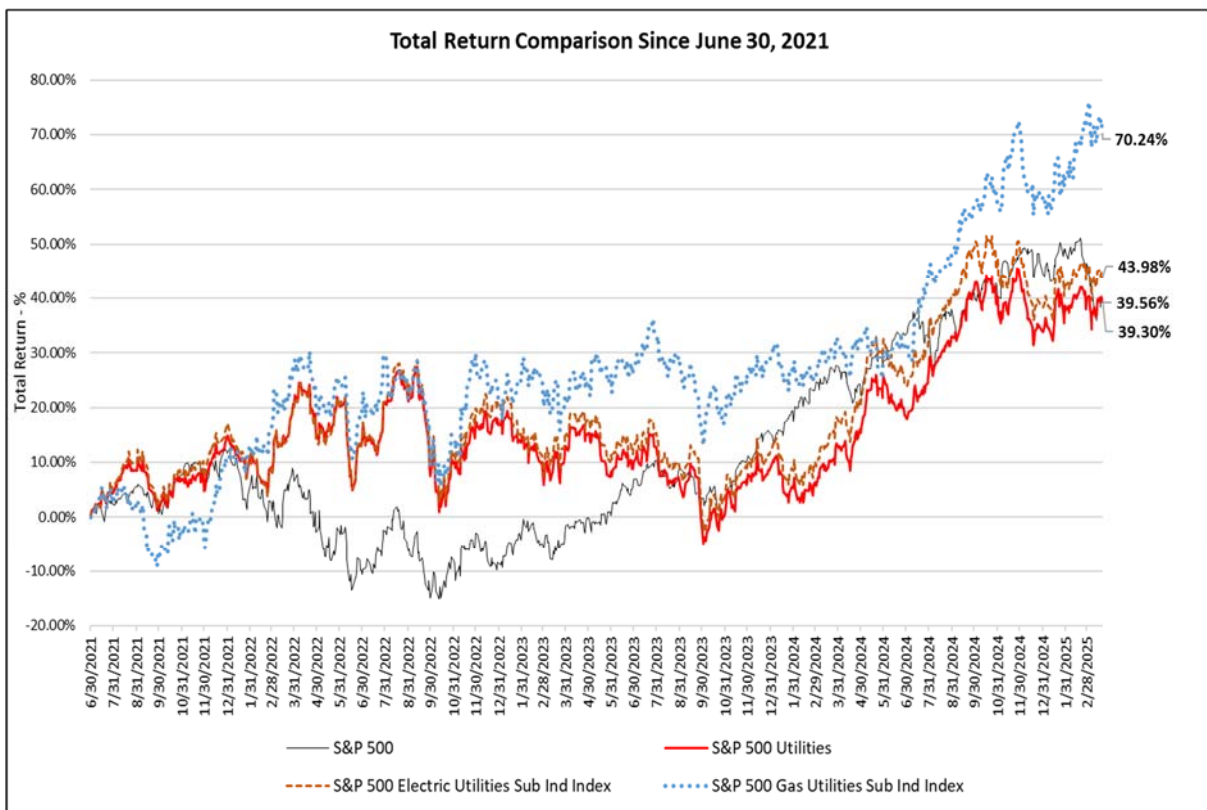
⁶*FitchRatings*. "North American Utilities, Power & Gas Outlook 2024," December 6, 2023 at 1. (Emphasis Added).

1 companies with larger market capitalizations have a greater impact on the index's
2 overall performance. This is explained in the S&P Dow Jones Indices report "U.S.
3 Equity Market Attributes April 2024," it is noted that:

4 Year-to-date, the S&P 500 remained up 5.57% (with 10 of the 11 sectors
5 up; Real Estate was down 9.86%), as breadth declined but remained
6 positive (302 up and 199 down, compared to last March's 369 and 134
7 YTD, respectively). The Magnificent 7 as a group still dominated,
8 accounting for 51% of the index return (which included Apple's 11.5%
9 YTD decline and Tesla's 26.2% YTD decline), as NVIDIA (up 74.5%
10 YTD) represented 41% of the S&P 500's YTD gain.⁷

11 Generally, the utility sector has been able to deliver positive and relatively stable
12 returns during a period of elevated inflation, rising interest rates, and uncertainty
13 because of geopolitical events around the world.

Figure CCW-4



⁷<https://www.spglobal.com/spdji/en/documents/commentary/market-attributes-us-equities-202404.pdf>. (Emphasis Added)

1 **III. RATE OF RETURN**

2 **Q PLEASE GENERALLY DESCRIBE WHAT IS MEANT BY THE OVERALL ROR AS**
3 **IT RELATES TO RATEMAKING FOR REGULATED UTILITIES.**

4 **A** The overall ROR in utility ratemaking represents the weighted average cost of capital
5 a utility is allowed to earn on its rate base. It combines the cost of debt and the
6 authorized ROE, weighted by the utility’s capital structure.

7 **A. Capital Structure**

8 **Q WHAT IS THE COMPANY’S PROPOSED CAPITAL STRUCTURE?**

9 **A** Spire Missouri’s proposed capital structure is summarized in Table CCW-6 below:

<u>Description</u>	<u>Weight</u>
Long-term Debt	45.00%
Common Equity	<u>55.00%</u>
Total	100.00%
*Total may not add due to rounding	

10 **Q DO YOU HAVE ANY COMMENTS ON THE COMPANY’S PROPOSED CAPITAL**
11 **STRUCTURE?**

12 **A** Yes. As I will discuss, Spire Missouri’s proposed equity ratio of 55.00% is relatively
13 higher than the equity ratio for the proxy group used to estimate the cost of equity for
14 Spire Missouri. As shown on Schedule CCW-2, the proxy group has an average

1 common equity ratio of 45.6% (including short-term debt) and 49.4% (excluding
2 short-term debt). Either an adjustment to the capital structure or a reduction in the
3 authorized ROE could be warranted given Spire Missouri's stronger financial position
4 relative to the proxy group used to assess the Company's cost of equity.

5 **Q ARE YOU AWARE OF OTHER REGULATORY COMMISSIONS RECOGNIZING THE**
6 **NEED TO ALIGN THE COST OF EQUITY WITH THE CAPITAL STRUCTURE?**

7 A Yes. In a recent Order, the Arkansas Public Service Commission imputed the capital
8 structure of Southwestern Electric Power Company ("SWEPCO") to be more in-line
9 with the comparable companies used to estimate the cost of equity.⁸ The adjustment
10 was to recognize that there must be *congruence* between the cost of equity and the
11 capital structure. Specifically, the Order states as follows:

12 Consistent with our ruling in Order No. 10 of Docket No. 06-101-U, the
13 Commission holds that there should be congruence between the
14 estimated cost of equity and the debt-to-equity ratio, whereby a lower
15 DTE ratio decreases financial risk and decreases the cost of equity. The
16 evidence of record supports imputing the average capital structure of
17 companies with comparable risk to SWEPCO for the purposes of
18 determining SWEPCO's overall cost of capital.⁹

19 As I described above, the Company's proxy group here has an average
20 common equity ratio of 45.6% (including short-term debt) and 49.4% (excluding
21 short-term debt) as calculated by *S&P Global Market Intelligence* and *Value Line*,
22 respectively. The Company's proposed equity ratio of 55.00% exceeds that of the
23 proxy group's comparable average equity ratio of 49.4%.

⁸APSC Docket No. 21-170-U, Doc. No. 323, May 23, 2022, Order No. 14.

⁹*Id.* at 25.

1 **Q ARE YOU RECOMMENDING AN ADJUSTMENT TO THE COMPANY’S CAPITAL**
2 **STRUCTURE?**

3 A Yes, I am. The Company’s proposed equity ratio of 55.00% exceeds its reported equity
4 ratio of approximately 52.1% as of the end of the test year, September 30, 2024, as
5 well as its most recently reported equity ratio of approximately 53.2% as of
6 December 31, 2024. As described above, the Company’s proposed equity ratio of
7 55.00% exceeds the proxy group’s average equity ratio of 49.4% as well as the industry
8 averages and medians reported above in Table CCW-2. I recommend the Commission
9 authorize an equity ratio no higher than the Company’s most recently reported equity
10 ratio of 53.2% as of December 31, 2024. I note that even this equity ratio exceeds the
11 other benchmarks described above.

12 **B. Cost of Debt**

13 **Q WHAT COST OF DEBT IS THE COMPANY PROPOSING?**

14 A The Company is proposing an embedded cost of long-term debt of 4.254%.

15 **Q ARE YOU TAKING ISSUE WITH THE COMPANY’S PROPOSED COST OF DEBT?**

16 A No, I am not.

17 **C. Cost of Equity**

18 **Q PLEASE DESCRIBE WHAT IS MEANT BY A “UTILITY’S COST OF COMMON**
19 **EQUITY.”**

20 A A utility’s cost of common equity is the expected return that investors require on an
21 investment in the utility. Investors expect to earn their required return from receiving
22 dividends and through stock price appreciation. This rate is designed to ensure the

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1 utility can attract investment, maintain financial stability, and provide reliable service
2 while balancing the interests of shareholders and ratepayers. Regulatory commissions
3 set the ROE based on market conditions and the utility's specific risk profile.

4 **Q PLEASE DESCRIBE THE FRAMEWORK FOR DETERMINING A REGULATED**
5 **UTILITY'S COST OF COMMON EQUITY.**

6 A In general, determining a fair cost of common equity for a regulated utility has been
7 framed by two hallmark decisions of the U.S. Supreme Court ("Supreme Court"):
8 Bluefield Water Works & Improvement Co. v. Pub. Serv. Comm'n of W. Va., 262 U.S.
9 679 (1923) and Fed. Power Comm'n v. Hope Natural Gas Co., 320 U.S. 591 (1944).
10 In these decisions, the Supreme Court found that just compensation depends on many
11 circumstances and must be determined by fair and enlightened judgments based on
12 relevant facts. The Supreme Court also found that a utility is entitled to such rates as
13 would permit it to earn a return on a property devoted to the convenience of the public
14 that is generally consistent with the same returns available in other investments of
15 corresponding risk. The Supreme Court continued that the utility has "no constitutional
16 rights to profits" such as those "realized or anticipated in highly profitable enterprises
17 or speculative ventures,"¹⁰ and defined the ratepayer/investor balance as follows:

18 The return should be reasonably sufficient to assure confidence in the
19 financial soundness of the utility and should be adequate, under efficient
20 and economical management, to maintain and support its credit and
21 enable it to raise the money necessary for the proper discharge of its
22 public duties.¹¹

23 As such, a fair ROR is based on the expectation that the utility's costs reflect
24 efficient and economical management, and the return will support its credit standing

¹⁰ *Bluefield*, 262 U.S. at 692-693.

¹¹ *Id.* at 693 (Emphasis Added).

1 and access to capital, but the return will not be in excess of this level. Utility rates that
2 are consistent with these standards will be just and reasonable, and compensation to
3 the utility will be fair and support financial integrity and credit-standing, under economic
4 management of the utility.

5 **Q IS THERE EVIDENCE THAT THE COMPANY’S REQUESTED DSA WOULD**
6 **SIGNIFICANTLY REDUCE ITS RISK PROFILE?**

7 A Yes. In a recent report titled “Decoupling Spire Missouri’s Revenue From Weather
8 Would Be Highly Supportive Of Credit Quality”, S&P notes that “We would therefore
9 view the filing along with a mechanism that enables Spire Missouri to fully recover its
10 revenue requirement--amid changing weather patterns--as highly supportive of credit
11 quality. It should also shorten regulatory lag and likely strengthen earned returns.” This
12 is a clear indication that the Company’s requested DSA would reduce its relative risk.

13 **Q IS THERE EVIDENCE THAT RECENT MISSOURI LEGISLATION WOULD**
14 **SIGNIFICANTLY REDUCE ITS RISK PROFILE?**

15 A Yes. In a recent report titled “Legislation In Missouri Would Improve Spire Missouri
16 Inc.’s Regulatory Framework”, S&P notes as follows:

17 Pending legislation in Missouri could modify the test year for rate
18 proceedings for natural gas utilities, including Spire Missouri Inc.
19 Senate Bill 4 continues to advance through the Missouri state
20 legislature. The proposed bill passed through the Missouri state House
21 of Representatives and Senate and is now pending final enactment by
22 Missouri’s Governor Mike Kehoe. The latest version of the bill would
23 allow natural gas utilities, beginning July 1, 2026, to request a future test
24 period that incorporates the entirety of Spire Missouri’s projected costs
25 and capital spending over the first 12 full calendar months after the
26 operation of the law date. This would include spending currently being
27 recovered through its infrastructure replacement surcharge.

28 Spire Missouri currently relies on a historical test period to calculate its
29 rates, resulting in significant exposure to regulatory lag, which is the

1 timing difference between when costs are incurred and when regulators
2 allow those costs to be fully recovered from ratepayers. The company's
3 last rate case utilized a test period end date of May 31, 2021, but its rate
4 increase was ultimately authorized in late November 2022 (reflecting
5 about 18 months of regulatory lag). This lag has contributed to weak
6 earned returns for the company. We therefore believe SB 4 and the
7 implementation of the future test period to Spire Missouri's regulatory
8 framework would reduce its regulatory lag and provide more clarity into
9 its financial performance going forward, given the ability to adjust
10 spending to authorized levels before it has been spent.

11 Governor Mike Kehoe signed Senate Bill 4 into law on April 9, 2025.

12 **Q PLEASE DESCRIBE THE PROCESS YOU HAVE USED TO ESTIMATE THE**
13 **COMPANY'S COST OF COMMON EQUITY.**

14 **A** First, I assessed the market's perspective of Spire Missouri's risk. Then, I developed
15 a proxy group of publicly traded utility companies that have similar risks and
16 characteristics to Spire Missouri and compared potential differences in risks. I then
17 performed several models based on financial theory to estimate Spire Missouri's cost
18 of common equity. These models are: (1) a constant growth Discounted Cash
19 Flow ("DCF") model using consensus analysts' growth rate projections; (2) a constant
20 growth DCF model using sustainable growth rate estimates; (3) a multi-stage growth
21 DCF model; (4) a Risk Premium model; and (5) a Capital Asset Pricing
22 Model ("CAPM").

23 **D. Investment Risk Assessment of the Company**

24 **Q PLEASE DESCRIBE THE MARKET'S ASSESSMENT OF THE COMPANY'S**
25 **INVESTMENT RISK.**

26 **A** The market's assessment of a company's investment risk is generally described by
27 credit rating analysts' reports. The current credit ratings for Spire Missouri is BBB+

1 from S&P and A1 from Moody's.¹² The Company's outlook from S&P and Moody's is
2 considered "stable". In its August 2024 report covering Spire Missouri, S&P stated as
3 follows:

4 *Outlook*

5 The stable outlook on parent Spire Inc. and its subsidiaries, including
6 Spire Missouri, reflects our view that consolidated financial measures,
7 including FFO to debt, will consistently reflect 12%-14% through 2026
8 and that nonutility contributions will increase to and sustain at 15%
9 through the same period.

10 *Downside scenario*

11 We could lower our ratings on Spire and its subsidiaries over the next
12 24 months if:

- 13 • Spire's consolidated financial measures weaken such that FFO
14 to debt is consistently below 12%. This is likely to occur if the
15 company's capital spending remains elevated and is funded
16 disproportionately with debt;
- 17 • Spire Missouri's ability to effectively manage regulatory risk
18 weakens; or
- 19 • Nonutility contributions approach 20% of consolidated EBITDA.

20 *Upside scenario*

21 We could raise our ratings over the next 24 months if consolidated FFO
22 to debt is consistently above 15% and its nonutility operations continue
23 to reflect 15% of consolidated EBITDA.

24 *Spire Missouri Inc.'s margins are exposed to weather-related sales*
25 *volatility.*

26 Regulation under the Missouri Public Service Commission (PSC) allows
27 Spire Missouri to adjust its rates to account for variations in the number
28 of heating degree days compared to its forecast. The reconciliation
29 occurs on an annual basis, exposing the company's lost margins to
30 regulatory lag. We believe this lag, in addition to the lag associated with
31 the recovery of its deferred natural gas purchases, has contributed to
32 the company's significantly weaker earned returns in the recent past.
33 Improvement in earned returns will therefore depend on more timely
34 cost recovery of deferred regulatory assets, including lost margins from
35 volatile weather.

¹²S&P Capital IQ, accessed on March 21, 2025.

1 *Higher financing costs reduce Spire Missouri's funds from*
2 *operations (FFO).*

3 Spire Missouri funds liquidity through intercompany borrowings from
4 parent Spire Inc.'s \$1.3 billion commercial paper program. The
5 weighted-average rate on outstanding borrowings as of March 31, 2024,
6 was 5.6% compared with 5.3% at March 31, 2023, and 0.9% at
7 March 31, 2022.¹³

8 While the Company has experienced strains on its financial metrics for various
9 reasons in recent years, certain aspects of the relief the Company seeks in this rate
10 case are not consistent with balancing the interests of both shareholders and
11 ratepayers. As I explained above, the Company's requested equity ratio is well in
12 excess of how it is actually financed and its requested ROE significantly overstates its
13 cost of equity. This is particularly true should the Company be awarded its expanded
14 revenue decoupling mechanism, DSA, and given the recent legislation that was signed
15 into law earlier this month.

16 **E. Development of Proxy Group**

17 **Q PLEASE BRIEFLY DESCRIBE WHY A PROXY GROUP IS NEEDED IN**
18 **ESTIMATING THE COST OF EQUITY.**

19 A There are a few reasons why a proxy group is needed to estimate the cost of equity.
20 As an initial matter, to be consistent with the *Hope* and *Bluefield* standards, as
21 described above, the allowed return should be commensurate with returns on
22 investments in other forms of comparable risk. A proxy group of similarly situated
23 companies of comparable risk is needed to assess the Company's proposal under this
24 standard.

¹³S&P Capital IQ RatingsDirect, "Full Analysis: Spire Missouri Inc.", June 6, 2024.

1 Even if Spire Missouri were a publicly traded company whose securities could
2 be used to estimate its cost of equity, there exists the potential for certain errors and
3 biases which would make the reliance on a single estimate undesirable and potentially
4 less accurate. A proxy group of comparable risk companies adds reliability to the
5 estimates by mitigating the potential for bias that may be introduced by measurement
6 errors of model inputs.

7 **Q PLEASE DESCRIBE HOW YOU IDENTIFIED A PROXY UTILITY GROUP THAT**
8 **COULD BE USED TO ESTIMATE THE COMPANY’S CURRENT MARKET COST OF**
9 **EQUITY.**

10 A I started with companies that were part of the Value Line Investment Survey’s Natural
11 Gas Utility universe. I then reviewed each company to see if there were any significant
12 factors that would potentially impact the overall risk level. Such factors would include
13 significant merger and/or acquisition activity, credit ratings upgrades/downgrades, or
14 dividend cuts. Based on my review, I found that one change was necessary to the
15 proxy group. NiSource Inc. (“NiSource”), which was party to a transformative
16 transaction, selling off a portion of its holdings in its vertically integrated electric utility
17 company, NIPSCO. On June 20, 2023, NiSource announced that it has entered into a
18 definitive agreement with an affiliate of Blackstone Infrastructure Partners, Blackstone’s
19 dedicated Infrastructure group, for the Blackstone Infrastructure affiliate to acquire a
20 19.9% equity interest in NIPSCO for \$2.150 billion. NiSource closed on the divestiture
21 in early 2024. At the time of the announcement, the announced value of the transaction
22 represented nearly 20% of NiSource’s market capitalization, making this a significant
23 and transformative transaction. NiSource should not be included in the proxy group.
24 This would leave only six proxy companies, which in my opinion, does not represent a

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1 large enough sample to accurately measure the cost of equity. As such, in order to get
2 a more thorough and complete analysis, I also looked to other utilities that were
3 primarily in the regulated utility distribution sector. As such, I also looked at the Value
4 Line Investment Survey's Water Utility universe as well as Eversource Energy, a multi-
5 utility with electric distribution, electric transmission, natural gas distribution, and water
6 distribution segments. However, Eversource Energy has entered into a definitive
7 agreement to sell its stake in Aquarion Water Company. Therefore, my proxy group
8 includes a total of 12 companies whose primary business is in the distribution side of
9 regulated utility services.

10 **Q HOW DOES THE INVESTMENT RISK OF THE COMPANY COMPARE TO THAT OF**
11 **THE PROXY GROUP?**

12 A As shown on my Schedule CCW-2, the proxy group has average credit ratings of A-
13 and A3 from S&P and Moody's, respectively. The proxy group's average rating of A-
14 from S&P is one notch higher than Spire Missouri's rating of BBB+ from S&P. However,
15 it is identical to Spire Missouri's stand-alone credit profile rating of 'A-' from S&P. The
16 proxy group's average rating of A3 from Moody's is two notches lower than Spire
17 Missouri's rating of A1 from Moody's.

18 As shown on the same exhibit, the proxy group has an average common equity
19 ratio of 45.6% (including short-term debt) and 49.4% (excluding short-term debt) as
20 calculated by *S&P Global Market Intelligence* and *Value Line*, respectively. Spire
21 Missouri's requested common equity ratio of 55.00% significantly exceeds the proxy
22 group's equity ratio as described above.

23 The Company's credit ratings are comparable to the proxy group, while its
24 requested equity ratio of 55.00% exceeds the proxy group's equity ratio.

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1 **F. DCF Model**

2 **Q PLEASE DESCRIBE THE DCF MODEL.**

3 A The DCF model posits that a stock price equals the sum of the present value of
4 expected future cash flows discounted at the investor's required ROR or cost of capital.

5 This model is expressed mathematically as follows:

6
$$P_0 = \frac{D_1}{(1+K)^1} + \frac{D_2}{(1+K)^2} \dots \frac{D_\infty}{(1+K)^\infty} \quad \text{(Equation 1)}$$

7

8 P_0 = Current stock price
9 D = Dividends in periods 1 - ∞
10 K = Investor's required return

11 This model can be rearranged in order to estimate the discount rate or
12 investor-required return, known as "K." If it is reasonable to assume that earnings and
13 dividends will grow at a constant rate, then Equation 1 can be rearranged as follows:

14
$$K = D_1/P_0 + G \quad \text{(Equation 2)}$$

15 K = Investor's required return
16 D_1 = Dividend in first year
17 P_0 = Current stock price
18 G = Expected constant dividend growth rate

19 Equation 2 is referred to as the annual "constant growth" DCF model.

20 **Q PLEASE DESCRIBE THE INPUTS TO YOUR CONSTANT GROWTH DCF MODEL.**

21 A As shown in Equation 2 above, the DCF model requires a current stock price, the
22 expected dividend, and the expected growth rate in dividends.

23 **Q WHAT STOCK PRICE HAVE YOU RELIED ON IN YOUR CONSTANT GROWTH
24 DCF MODEL?**

25 A I relied on the average of the weekly high and low stock prices of the utilities in the
26 proxy group over a 13-week period ending on March 21, 2025. An average stock price

1 is less susceptible to market price variations than a price at a single point in time.
2 Therefore, an average stock price is less susceptible to aberrant market price
3 movements, which may not reflect the stock's long-term value.

4 **Q WHAT DIVIDEND DID YOU USE IN YOUR CONSTANT GROWTH DCF MODEL?**

5 A I used each proxy company's most recently paid quarterly dividend as reported in
6 *Value Line*.¹⁴ This dividend was annualized (multiplied by 4) and adjusted for next
7 year's growth to produce the D_1 factor for use in Equation 2 above. In other words, I
8 calculate D_1 by multiplying the annualized dividend (D_0) by $(1+G)$.

9 **Q WHAT DIVIDEND GROWTH RATES HAVE YOU USED IN YOUR CONSTANT**
10 **GROWTH DCF MODEL?**

11 A There are several methods that can be used to estimate the expected growth in
12 dividends. However, regardless of the method, for purposes of determining the
13 market-required return on common equity, one must attempt to estimate investors'
14 expectations about what the dividend, or earnings growth rate, will be, and not what an
15 individual investor or analyst may use to make individual investment decisions.

16 As predictors of future returns, securities analysts' growth estimates have been
17 shown to be more accurate than growth rates derived from historical data.¹⁵ That is,
18 assuming the market generally makes rational investment decisions, analysts' growth
19 projections are more likely to influence investors' decisions, which are captured in
20 observable stock prices, than growth rates derived only from historical data.

¹⁴The Value Line Investment Survey, January 3 and February 21, 2025.

¹⁵See, e.g., David Gordon, Myron Gordon, and Lawrence Gould, Choice Among Methods of Estimating Share Yield, *The Journal of Portfolio Management*, Spring 1989.

1 For my constant growth DCF analysis, I have relied on a consensus, or mean,
2 of professional securities analysts' earnings growth estimates as a proxy for investors'
3 dividend growth rate expectations. I used the average of analysts' growth rate
4 estimates from three sources: Zacks, S&P Capital IQ Market Intelligence ("MI"), and
5 Institutional Brokers' Estimate System ("I/B/E/S") from LSEG Workspace. All such
6 projections were available on March 21, 2025, and all were reported online.¹⁶

7 Each growth rate projection is based on a survey of independent securities
8 analysts. There is no clear evidence whether a particular analyst is most influential on
9 general market investors. Therefore, a single analyst's projection does not predict
10 investor outlooks as reliably as does a consensus of market analysts' projections. The
11 consensus of estimates is a simple arithmetic average, or mean, of surveyed analysts'
12 earnings growth forecasts. A simple average of the growth forecasts gives equal
13 weight to all surveyed analysts' projections. Therefore, a simple average, or arithmetic
14 mean, of analysts' forecasts is a good proxy for investor expectations.

15 The growth rates I used in my DCF analysis are shown in Schedule CCW-3.
16 The average growth rate for my proxy group is 9.32% and a median growth rate
17 of 7.40%.

18 **Q WHAT ARE THE RESULTS OF YOUR CONSTANT GROWTH DCF MODEL?**

19 A As shown in Schedule CCW-4, page 1, the average and median constant growth DCF
20 returns for my proxy group for the 13-week analysis are 12.90% and 10.84%,
21 respectively.

¹⁶www.zacks.com; LSEG Workspace; <https://www.capitaliq.spglobal.com/>.

1 **Q ARE THERE LIMITATIONS OF THE CONSTANT GROWTH DCF ANALYSIS?**

2 A Yes. The constant growth DCF analysis for my proxy group is based on a group
3 average long-term growth rate of 9.32%. The three- to five-year growth rates are
4 approximately 125% higher than the long-term projected GDP growth rate of 4.14%,
5 described below. As I explain in detail below, a utility's growth rate cannot exceed the
6 growth rate of the economy in which it provides services in perpetuity, which is the time
7 period assumed by the DCF model.

8 **Q HOW DID YOU IDENTIFY THE LONG-TERM PROJECTED GDP GROWTH RATE?**

9 A Although there may be short-term peaks, the long-term sustainable growth rate for a
10 utility stock cannot exceed the growth rate of the economy in which it sells its goods
11 and services. The long-term maximum sustainable growth rate for a utility investment
12 is limited by the projected long-term GDP growth rate, as that reflects the projected
13 long-term growth rate of the economy. The consensus projection for U.S. GDP, as
14 published by Blue Chip Economic Indicators, is an annual growth rate of approximately
15 4.14% over the next 10 years. In my opinion, this is a reasonable proxy of long-term
16 growth.

17 Later in this testimony, I discuss academic and investment-practitioner support
18 for using the projected long-term GDP growth outlook as a maximum long-term growth
19 rate projection. Using the long-term GDP growth rate as a conservative projection for
20 the maximum growth rate is logical and is generally consistent with academic and
21 practitioner accepted practices.

1 **G. Sustainable Growth DCF**

2 **Q PLEASE DESCRIBE WHAT THE SUSTAINABLE GROWTH DCF METHOD IS AND**
3 **HOW YOU ESTIMATED A SUSTAINABLE GROWTH RATE FOR YOUR**
4 **SUSTAINABLE GROWTH DCF MODEL.**

5 A The sustainable growth rate, also referred to as the internal growth rate, is determined
6 by the proportion of the utility's earnings that is retained and reinvested in its plant and
7 equipment. These reinvested earnings enhance the earnings base, also known as the
8 rate base. The earnings grow as the plant, funded by the reinvested earnings, is put
9 into operation, allowing the utility to receive its authorized return on the additional rate
10 base investment.

11 The internal growth approach is linked to the percentage of earnings retained
12 within a company, as opposed to being paid out as dividends. The earnings retention
13 ratio is calculated as 1 minus the dividend payout ratio. As the payout ratio decreases,
14 the retention ratio increases, leading to stronger growth as a company funds more
15 investments using retained earnings.

16 The payout ratios of the proxy group are shown in my Schedule CCW-5. These
17 dividend-payout ratios and earnings-retention ratios then can be used to develop a
18 long-term growth rate driven by earnings retention.

19 The data used to estimate the long-term sustainable growth rate is based on
20 the Company's current market-to-book ratio and on *Value Line's* three- to five-year
21 projections of earnings, dividends, earned returns on book equity, and stock issuances.

22 As shown in Schedule CCW-6, the average and median sustainable growth
23 rates for the proxy group using this internal growth rate model are 5.83% and 5.71%,
24 respectively.

1 **Q WHAT IS THE DCF ESTIMATE USING THESE SUSTAINABLE GROWTH RATES?**

2 A A DCF estimate based on these sustainable growth rates is developed in Schedule
3 CCW-7. As shown there, and using the same formula in Equation 2 above, a
4 sustainable growth DCF analysis produces proxy group average and median DCF
5 results for the 13-week period of 9.33% and 8.84%, respectively.

6 **H. Multi-Stage Growth DCF Model**

7 **Q HAVE YOU CONDUCTED ANY OTHER DCF STUDIES?**

8 A Yes. As previously noted, the DCF model is intended to represent the present value
9 of an endless series of future cash flows. Nevertheless, the initial constant growth DCF
10 that I created is based on analyst growth-rate projections, providing a plausible
11 representation of rational investment expectations over the next three-to-five years.
12 The limitation of this constant growth DCF model is that it cannot reflect a reasonable
13 expectation of a shift in growth from a high or low short-term rate to a rate that aligns
14 more with long-term sustainable growth. To accommodate changing growth
15 expectations, I conducted a multi-stage DCF analysis that reflects growth rate change
16 over time.

17 **Q WHY DO YOU BELIEVE GROWTH RATES CAN CHANGE OVER TIME?**

18 A The growth rate projections by analysts for the next three-to-five years are subject to
19 change as the outlook for utility earnings-growth evolves. Utility companies experience
20 fluctuations in their investment cycles. When these companies are undertaking
21 substantial investments, the growth of their rate base accelerates, leading to an
22 increase in earnings growth. However, once a major construction cycle reaches
23 completion or plateaus, the growth in the utility rate base slows down, and its earnings

1 growth rate declines from an abnormally high three-to-five-year rate to a lower,
2 sustainable growth rate.

3 As construction cycles become longer in duration, even with an aggressive
4 construction plan, the growth rate of the utility will naturally slow due to a decrease in
5 rate base growth as the utility has limited human and capital resources to expand its
6 construction activities. Therefore, the three-to-five-year growth rate projection should
7 be viewed as a long-term sustainable growth rate, but not without considering the
8 current market conditions, industry trends, and determining whether the
9 three-to-five-year growth outlook is feasible and sustainable.

10 **Q PLEASE DESCRIBE YOUR MULTI-STAGE DCF MODEL.**

11 A The multi-stage DCF model reflects the possibility of non-constant growth for a
12 company over time. The multi-stage DCF model reflects three growth periods: (1) a
13 short-term growth period consisting of the first five years; (2) a transition period,
14 consisting of the next five years (6 through 10); and (3) a long-term growth period
15 starting in year 11 and extending into perpetuity.

16 For the short-term growth period, I relied on the consensus of analysts' growth
17 projections described above in relationship to my constant growth DCF model. For the
18 transition period, the growth rates were reduced or increased by an equal factor
19 reflecting the difference between the analysts' growth rates and the long-term
20 sustainable growth rate. For the long-term growth period, I assumed each company's
21 growth would converge to the maximum sustainable long-term growth rate.

1 **Q WHY IS THE GDP GROWTH PROJECTION A REASONABLE PROXY FOR THE**
2 **MAXIMUM SUSTAINABLE LONG-TERM GROWTH RATE?**

3 A As discussed above, utilities cannot indefinitely sustain a growth rate that exceeds the
4 growth rate of the economy in which they sell services. A utility's earnings and dividend
5 growth is created by increased utility investment in its rate base. Examples of what
6 can drive such investment are: service area economic growth, system reliability
7 upgrades, or state and federal green energy initiatives. As such, nominal GDP growth
8 is a reasonable upper limit for utility sales growth, rate base growth, and earnings
9 growth in the long-run. Therefore, the U.S. GDP nominal growth rate is a conservative
10 proxy for the highest sustainable long-term growth rate of a utility.

11 **Q IS THERE RESEARCH THAT SUPPORTS YOUR POSITION THAT, OVER THE**
12 **LONG-TERM, A COMPANY'S EARNINGS AND DIVIDENDS CANNOT GROW AT A**
13 **RATE GREATER THAN THE RATE OF GROWTH OF THE U.S. GDP?**

14 A Yes. This concept is supported in published analyst literature and academic work.
15 Specifically, in a textbook titled *Fundamentals of Financial Management*, published by
16 Eugene Brigham and Joel F. Houston, the authors state as follows:

17 The constant growth model is most appropriate for mature companies
18 with a stable history of growth and stable future expectations. Expected
19 growth rates vary somewhat among companies, but dividends for
20 mature firms are often expected to grow in the future at about the same
21 rate as nominal gross domestic product (real GDP plus inflation).¹⁷

22 The use of the economic growth rate is also supported by investment
23 practitioners as outlined as follows:

¹⁷*Fundamentals of Financial Management*, Eugene F. Brigham and Joel F. Houston, Eleventh Edition 2007, Thomson South-Western, a Division of Thomson Corporation at 298 (Emphasis Added).

1 **Estimating Growth Rates**

2 One of the advantages of a three-stage discounted cash flow model is
3 that it fits with life cycle theories in regards to company growth. In these
4 theories, companies are assumed to have a life cycle with varying
5 growth characteristics. Typically, the potential for extraordinary growth
6 in the near term eases over time and eventually growth slows to a more
7 stable level.

8 * * *

9 Another approach to estimating long-term growth rates is to focus on
10 estimating the overall economic growth rate. Again, this is the approach
11 used in the *Ibbotson Cost of Capital Yearbook*. To obtain the economic
12 growth rate, a forecast is made of the growth rate's component parts.
13 Expected growth can be broken into two main parts: expected inflation
14 and expected real growth. By analyzing these components separately,
15 it is easier to see the factors that drive growth.¹⁸

16 **Q HOW DID YOU DETERMINE A LONG-TERM GROWTH RATE THAT REFLECTS**
17 **THE CURRENT CONSENSUS OF INDEPENDENT MARKET PARTICIPANTS?**

18 **A** I relied on the consensus of long-term GDP growth projections by independent
19 economists. Blue Chip Economic Indicators publishes the consensus for GDP growth
20 projections twice a year. These projections reflect current outlooks for GDP and are
21 likely to be influential on investors' expectations of future growth outlooks. The
22 consensus of projected GDP growth is about 4.14% over the next 10 years.¹⁹

23 **Q DO YOU CONSIDER OTHER SOURCES OF PROJECTED LONG-TERM GDP**
24 **GROWTH?**

25 **A** Yes, and these alternative sources corroborate the consensus analysts' projections I
26 relied on. Several projections are shown in Table CCW-7 below.

¹⁸Morningstar, Inc., Ibbotson SBBI 2013 Valuation Yearbook at 51 and 52.

¹⁹Blue Chip Economic Indicators, March 10, 2025 at page 14.

TABLE CCW-7

GDP Forecasts

<u>Source</u>	<u>Projected Period</u>	<u>Real GDP</u>	<u>Inflation</u>	<u>Nominal GDP</u>
Blue Chip Economic Indicators ¹	5-10 Yrs	1.9%	2.2%	4.1%
EIA - Annual Energy Outlook ²	27 Yrs	1.9%	2.3%	4.3%
Congressional Budget Office ³	30 Yrs	1.7%	2.0%	3.8%
Moody's Analytics ⁴	31 Yrs	2.0%	2.1%	4.1%
Social Security Administration ⁵	76 Yrs	1.6%	2.4%	4.0%
Economist Intelligence Unit ⁶	31 Yrs	1.6%	2.3%	3.9%

Sources:

¹Blue Chip Economic Indicators, March 10, 2025 at 14.

²U.S. Energy Information Administration (EIA),
Annual Energy Outlook 2023, September, 2022.

³Congressional Budget Office, Long-Term Budget Outlook, March 28, 2024.

⁴Moody's Analytics Forecast, last updated January 13, 2025.

⁵Social Security Administration, "2024 OASDI Trustees Report,"
Table VI.G6. May 6, 2024.

⁶S&P MI, Economist Intelligence Unit, downloaded on March 4, 2025.

1 As shown in the table above, the real GDP and the inflation fall in the range of
2 1.6% to 2.0% and 2.0% to 2.4%, respectively. This results in a nominal GDP in the
3 range of 3.8% to 4.3%. Therefore, the nominal GDP growth projections made by these
4 independent sources support my use of 4.14% as a reasonable estimate of market
5 participants' expectations for long-term GDP growth. The real GDP and nominal GDP
6 growth projections made by these independent sources support my use of 4.14% as a
7 reasonable estimate of market participants' expectations for long-term GDP growth.

1 **Q WHAT STOCK PRICE, DIVIDEND, AND GROWTH RATES DID YOU USE IN YOUR**
2 **MULTI-STAGE DCF ANALYSIS?**

3 A I relied on the same 13-week average stock prices and the most recent quarterly
4 dividend payment data discussed above. For the first stage, I used the consensus of
5 analysts' growth rate projections discussed above in my constant growth DCF model.
6 The first stage covers the first five years, consistent with the time horizon of the
7 securities analysts' growth rate projections. The second stage, or transition stage,
8 begins in year 6 and extends through year 10. The second stage growth transitions
9 the growth rate from the first stage to the third stage using a straight linear trend. For
10 the third stage, or long-term sustainable growth stage, starting in year 11, I used a
11 4.14% long-term sustainable growth rate based on the consensus of economists'
12 long-term projected nominal GDP growth rate.

13 **Q WHAT ARE THE RESULTS OF YOUR MULTI-STAGE DCF MODEL?**

14 A As shown in Schedule CCW-8, the average and median DCF ROEs for my proxy group
15 using the 13-week average stock price are 8.93% and 8.42%, respectively.

16 **Q PLEASE SUMMARIZE THE RESULTS FROM YOUR DCF ANALYSES.**

17 A The DCF results are summarized in Table CCW-8 below. As described above, the
18 results of the constant growth DCF using analysts' growth rates assume an average
19 long-term growth rate of 9.32%, which is approximately 125% higher than the long-term
20 projected GDP growth rate of 4.14%. This is an unsustainable assumption, and likely
21 leads to an overstatement in the cost of equity for a low risk regulated utility. As such,
22 it is my opinion that more weight should be given to the sustainable growth and
23 multi-stage models of the DCF.

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Table CCW-8
Summary of DCF Results

<u>Description</u>	<u>Proxy Group</u>	
	<u>Mean</u>	<u>Median</u>
Constant Growth DCF Model (Analysts' Growth)	12.90%	10.84%
Constant Growth DCF Model (Sustainable Growth)	9.33%	8.84%
Multi-Stage DCF Model	8.93%	8.42%

I. Risk Premium Model

Q PLEASE DESCRIBE YOUR BOND YIELD PLUS RISK PREMIUM MODEL.

A This model is based on the principle that investors require a higher return to assume greater risk. Common equity investments have greater risk than bonds because bonds have more security of payment in bankruptcy proceedings than common equity and the coupon payments on bonds represent contractual obligations. In contrast, companies are not required to pay dividends or guarantee returns on common equity investments. Therefore, common equity securities are riskier than bond securities.

This risk premium model is based on two estimates of an equity risk premium. First, I quantify the difference between regulatory commission-authorized returns on common equity and contemporary U.S. Treasury bonds. The difference between the authorized return on common equity and the Treasury bond yield is the risk premium. I estimated the risk premium on an annual basis for each year since January 1986. The authorized ROEs were based on regulatory commission-authorized returns for

1 utility companies. Authorized returns are typically based on expert witnesses'
2 estimates of the investor-required return at the time of the proceeding.

3 The second equity risk premium estimate is based on the difference between
4 regulatory commission-authorized returns on common equity and contemporary
5 "A" rated utility bond yields by Moody's. I selected the period beginning in 1986
6 because public utility stocks consistently traded at a premium to book value during that
7 period. This is illustrated in Schedule CCW-9, which shows the market-to-book ratio
8 since 1986 for the utility industry was consistently above a multiple of 1.0x. Over this
9 period, an analyst can infer that authorized ROEs were sufficient to support market
10 prices that at least exceeded book value. This is an indication that
11 commission-authorized returns on common equity supported a utility's ability to issue
12 additional common stock without diluting existing shares. It further demonstrates that
13 utilities were able to access equity markets without a detrimental impact on current
14 shareholders.

15 Based on this analysis, as shown in Schedule CCW-10, the average indicated
16 equity risk premium over U.S. Treasury bond yields has been 5.63%. Since the risk
17 premium can vary depending upon market conditions and changing investor risk
18 perceptions, I believe using an estimated range of risk premiums provides the best
19 method to measure the current return on common equity for a risk premium
20 methodology.

21 In addition, I assessed the five-year and ten-year rolling average risk premiums
22 over the study period to gauge the variability over time. These rolling average risk
23 premiums mitigate the impact of anomalous market conditions and skewed risk
24 premiums over an entire business cycle. As shown on my Schedule CCW-10, the

1 five-year rolling average risk premium over Treasury bonds ranged from 4.17% to
2 7.17%, while the ten-year rolling average risk premium ranged from 4.30% to 6.92%.

3 As shown on my Schedule CCW-11, the average indicated equity risk premium
4 over contemporary "A" rated Moody's utility bond yields was 4.27%. The five-year and
5 ten-year rolling average risk premiums ranged from 2.80% to 5.98% and 3.11% to
6 5.75%, respectively.

7 **Q WHY IS THE TIME PERIOD USED TO DERIVE THESE EQUITY RISK PREMIUM**
8 **ESTIMATES APPROPRIATE TO FORM ACCURATE CONCLUSIONS ABOUT**
9 **CONTEMPORARY MARKET CONDITIONS?**

10 A Contemporary market conditions can change dramatically during the period that rates
11 determined in this proceeding will be in effect. A relatively long period of time where
12 stock valuations reflect premiums to book value indicates that the authorized ROEs
13 and the corresponding equity risk premiums were supportive of investors' return
14 expectations and provided utilities access to the equity markets under reasonable
15 terms and conditions. Further, this period is long enough to smooth abnormal market
16 movement that might distort equity risk premiums. While market conditions and risk
17 premiums do vary over time, this historical period is a reasonable period to estimate
18 contemporary risk premiums.

19 **Q PLEASE EXPLAIN OTHER MARKET EVIDENCE YOU RELIED ON IN**
20 **DETERMINING AN APPROPRIATE EQUITY RISK PREMIUM.**

21 A The equity risk premium should reflect the market's perception of risk in the utility
22 industry today. I have gauged investor perceptions in utility risk today in Schedule
23 CCW-12, where I show the yield-spread between utility bonds and Treasury bonds

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1 since 1980. As shown in this schedule, the average utility bond yield-spreads over
2 Treasury bonds for “A” and “Baa” rated utility bonds for this historical period are 1.48%
3 and 1.90%, respectively.

4 A current three-month average “A” rated utility bond yield of 5.51% when
5 compared to the current Treasury bond yield of 4.50%, as shown in Schedule CCW-
6 13, page 1, implies a yield-spread of 1.01%. This current utility bond yield-spread is
7 lower than the long-term average-spread for “A” rated utility bonds of 1.48%. The
8 three-month average yield on “Baa” rated utility bonds is 5.71%. This indicates a
9 current spread for the “Baa” rated utility bond yield of 1.21%, which is lower than the
10 long-term average of 1.90%.

11 **Q WHAT ARE THE RESULTS BASED ON YOUR RISK PREMIUM ANALYSES?**

12 A I give primary consideration to the Risk Premium results using Treasury bonds and
13 A-rated utility bonds. My recommendation also takes the results of adding the
14 Baa-rated utility bond yield to the equity risk premium over A-rated utility bonds into
15 consideration.

16 Considering the current and projected economic environment, current
17 yield-spreads and equity risk premiums, as well as current levels of interest rates and
18 interest rate projections, a more normalized equity risk premium is warranted. As such,
19 I believe an average equity risk premium over Treasury yields of 5.63% is appropriate.
20 Adding this risk premium to the most recent consensus projected Treasury yield of
21 4.60%²⁰ produces a ROE of 10.23%.

22 Applying a similar methodology as described above, the average risk premium
23 over A-rated utility bonds is 4.27%. The A-rated utility bond yield has averaged 5.51%

²⁰Blue Chip Financial Forecast February 28, 2025.

1 over the three-month period through December 2024 while the Baa-rated utility bond
 2 yield has averaged 5.71% over the same period. Adding the average equity risk
 3 premium of 4.27% to the three-month average A-rated utility bond yield of 5.51%
 4 produces an estimated cost of equity of 9.78%. Adding the same equity risk premium
 5 to the three-month average Baa-rated utility bond yield of 5.71% produces an estimated
 6 cost of equity of 9.98%.

7 The A-rated utility bond yield has averaged 5.46% over the six-month period
 8 ending December 2024 while the Baa-rated utility bond yield has averaged 5.67% over
 9 the same period. Adding the average equity risk premium of 4.27% to the six-month
 10 average A-rated utility bond yield of 5.46% produces an estimated cost of equity of
 11 9.73%. Adding the equity risk premium of 4.27% to the six-month average Baa-rated
 12 utility bond yield of 5.67% produces an estimated cost of equity of 9.94%.

13 The results of my risk premium analyses are summarized in Table CCW-9.

Table CCW-9	
<u>Summary of Risk Premium Results</u>	
<u>Description</u>	<u>Results</u>
Projected Treasury Yield	10.23%
<u>3-Month Average Yields</u>	
A-Rated Utility Bond	9.78%
Baa-Rated Utility Bond	9.98%
<u>6-Month Average Yields</u>	
A-Rated Utility Bond	9.73%
Baa-Rated Utility Bond	9.94%

1 **J. Capital Asset Pricing Model**

2 **Q PLEASE DESCRIBE THE CAPM.**

3 A The CAPM method of analysis is based upon the theory that the market-required ROR
4 for a security is equal to the risk-free rate, plus a risk premium associated with the
5 specific security. This relationship between risk and return can be expressed
6 mathematically as follows:

7
$$R_i = R_f + B_i \times (R_m - R_f) \text{ where:}$$

- 8 R_i = Required return for stock i
- 9 R_f = Risk-free rate
- 10 R_m = Expected return for the market portfolio
- 11 B_i = Beta - Measure of the risk for stock

12 The term "beta" in the equation represents the stock-specific risk that cannot be
13 reduced through diversification. In a well-diversified portfolio, specific risks related to
14 individual stocks can be reduced by balancing the portfolio with securities that offset
15 the impact of firm-specific factors, such as business cycle, competition, product mix,
16 and production limitations.

17 Non-diversifiable risks, on the other hand, are related to market conditions and
18 are referred to as systematic risks. These risks cannot be reduced through
19 diversification and are considered market risks. Conversely, non-systematic risks, also
20 known as business risks, can be reduced through diversification.

21 According to the CAPM, the market does not compensate investors for taking
22 on risks that can be diversified away. Thus, investors are only compensated for taking
23 on systematic, or non-diversifiable, risks. Beta is a measure of these systematic risks.

1 **Q PLEASE DESCRIBE THE INPUTS TO YOUR CAPM.**

2 A The CAPM requires an estimate of the market risk-free rate, the company's beta, and
3 the Market Risk Premium ("MRP"). The MRP is the difference between the expected
4 market return and the risk-free rate.

5 **Q WHAT DID YOU USE AS AN ESTIMATE OF THE MARKET RISK-FREE RATE?**

6 A As previously noted, *Blue Chip Financial Forecasts'* projected 30-year Treasury bond
7 yield is 4.60%.²¹ The current 30-year Treasury bond yield is 4.50%, as shown in
8 Schedule CCW-13 at page 1. I used *Blue Chip Financial Forecasts'* projected 30-year
9 Treasury bond yield of 4.60% for my CAPM analysis.

10 **Q WHAT BETA DID YOU USE IN YOUR ANALYSIS?**

11 A As shown in Schedule CCW-14, the current proxy group average and median *Value*
12 *Line* beta estimates are 0.91 and 0.90, respectively. In my experience, these beta
13 estimates are abnormally high and are unlikely to be sustained over the long-term. As
14 such, I have also reviewed the historical average of the proxy group's *Value Line* betas.
15 The historical average *Value Line* beta since 2014 is 0.77 and has ranged from 0.65
16 to 0.89. Prior to the recent pandemic, the high end of this range was 0.77.

17 In addition to *Value Line*, I have also included adjusted beta estimates as
18 provided by Market Intelligence's Beta Generator Model. This model relied on a
19 five-year period on a weekly basis ending March 21, 2025. The average and median
20 Market Intelligence betas are 0.70 and 0.67, respectively. Market Intelligence betas,
21 as calculated using its Beta Generator Model, are adjusted using the Vasicek method
22 and calculated using the S&P 500 as the proxy for the investable market. This is in

²¹Blue Chip Financial Forecast February 28, 2025.

1 stark contrast with the *Value Line* beta estimates that are adjusted using a constant
2 weighting of 67%/35% to the raw beta/market beta and use the New York Stock
3 Exchange (“NYSE”) as the proxy for the investable market. Because I rely on the
4 S&P 500 to estimate the expected return on the investable market, it makes sense to
5 rely on beta estimates that are calculated using the S&P 500 as the benchmark for the
6 market. Further, as S&P explains:

7 The Vasicek Method is a superior alternative to the Bloomberg Beta
8 adjustment. The Bloomberg adjustment is not appropriate for a vast
9 number of situations, as it assigns constant weighting regardless of the
10 standard error in the raw beta estimation (Bloomberg Beta = $1/3 \times \text{market beta} + 2/3 \times \text{Raw Beta}$). Given the statistical fact that a larger sample size
11 yields a smaller error, the Vasicek method more appropriately adjusts
12 the raw beta via weights determined by the variance of the individual
13 security versus the variance of a larger sample of comparable
14 companies. The weights are designed to bring the raw beta closer to
15 whichever beta estimation has the smallest error. This is a feature the
16 Bloomberg beta cannot replicate.²²
17

18 Notably, while S&P makes reference to the Bloomberg method of applying
19 $2/3$ and $1/3$ weights to the raw beta and market beta, respectively, the comparison still
20 applies to *Value Line*’s methodology of applying 67% and 35% weights. Both methods
21 are forms of the Blume adjustment.²³ While the weights are slightly different between
22 the Bloomberg and *Value Line* methods, they are similar and apply a constant weight
23 without any regard to accuracy. As such, S&P’s criticisms apply to both Bloomberg
24 betas and *Value Line* betas.

25 Because current beta estimates are based on the most recent five years of
26 historical stock returns and volatility, they are being heavily impacted by the market

²²S&P Market Intelligence, Beta Generator Model.

²³The Blume adjustment is a tool used to refine a beta measurement in finance. In general, beta attempts to explain how much a particular investment’s price moves compared to the overall market. But beta is often based on historical data, which may not be an accurate method for predicting the future. The Blume adjustment tries to address this by considering the idea that, in the long run, most investments tend to become more similar in their riskiness to the overall market (represented by a beta of 1).

1 fallout in early 2020 as the global pandemic set in and the market reacted, with this
2 S&P 500 falling more than 40%. For this reason, it is not reasonable to assume current
3 beta estimates, particularly Blume-adjusted betas such as those published by
4 *Value Line*, are reflective of investor expectations at this time.

5 **Q YOU MENTION THAT THE CURRENT 5-YEAR VALUE LINE BETA ESTIMATES**
6 **MIGHT NOT BE REFLECTIVE OF INVESTOR EXPECTATIONS, AND**
7 **POTENTIALLY OVERSTATE THE COST OF EQUITY. DO YOU HAVE EVIDENCE**
8 **TO SUPPORT THAT HYPOTHESIS?**

9 A Yes. As mentioned above, *Value Line's* beta estimates calculated over a 5-year
10 historical price period will include the unprecedented volatility and market prices
11 caused by the onset of the COVID-19 pandemic in early 2020. It is unreasonable to
12 assume that those prices and resulting volatility resemble investor expectations going
13 forward. Prior to the market fallout from the pandemic, utility beta estimates were at
14 several year lows. Subsequent to the period of peak volatility from the pandemic, utility
15 betas have actually declined back toward their normalized levels. This is demonstrated
16 in Table CCW-10 below. In this table, I present the raw unadjusted beta estimates for
17 *Value Line's* reported 5-year period as well as a 3-year period ending March 21, 2025.
18 I then apply the Blume adjustment using the same weighting applied by *Value Line*.²⁴

²⁴The Value Line method to calculate adjusted betas is as follows: $B_{adjusted} = 0.35 + 0.67 \times B_{unadjusted}$.

Table CCW-10

Beta Comparison

Proxy Group	5-Year Value Line Beta¹		3-Year Beta²	
	Unadjusted	Reported	Unadjusted	Adjusted⁴
Atmos Energy Corporation	0.82	0.90	0.61	0.76
Northwest Natural Holding Company	0.82	0.90	0.66	0.79
ONE Gas, Inc.	0.75	0.85	0.60	0.75
Southwest Gas Holdings, Inc.	0.90	0.95	0.65	0.79
Spire Inc.	0.82	0.90	0.60	0.76
American States Water Company	0.60	0.75	0.64	0.78
American Water Works Company, Inc.	0.97	1.00	0.77	0.87
California Water Service Group	0.60	0.75	0.71	0.83
Essential Utilities, Inc.	0.97	1.00	0.68	0.81
Middlesex Water Company	0.67	0.80	0.63	0.77
SJW Group	0.75	0.85	0.61	0.76
Average	0.79	0.88	0.65	0.79
Median	0.82	0.90	0.64	0.78

Source:

¹The Value Line Investment Survey, January 3 and February 21, 2025.

²S&P Global Market Intelligence, betas for the period 3/21/2022 - 3/21/2025.

⁴Estimated the unadjusted beta by removing Value Line's Blume adjustment methodology:
 $(\text{Unadjusted Beta} - 0.35) / 0.67$

⁴Adjusted using Value Line's Blume adjustment methodology: $0.35 + (0.67 \times \text{Unadjusted Beta})$

1 This data clearly demonstrates that systematic market risk has subsided for
2 regulated utilities after controlling for the impacts of the global pandemic with average
3 and median beta estimates of 0.80 and 0.78, respectively.

4 **Q HOW DID YOU DERIVE YOUR MRP ESTIMATES?**

5 A My MRP estimates are derived using two general approaches: a risk premium
6 approach and a DCF approach. I also consider the normalized MRP of 5.00% with the
7 normalized risk-free rate of 4.78% as recommended by Kroll, formerly known as

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1 Duff & Phelps.²⁵ Based on this methodology and utilizing a “normalized” risk-free rate
2 of 4.78%, Kroll concludes that the current expected, or forward-looking, MRP is 5.00%,
3 implying an expected return on the market of 9.78%.²⁶

4 **Q PLEASE DESCRIBE YOUR MRP ESTIMATE DERIVED USING THE RISK PREMIUM**
5 **METHODOLOGY.**

6 A The forward-looking risk premium-based estimate was derived by estimating the
7 expected return on the market (as represented by the S&P 500) and subtracting the
8 risk-free rate from this estimate. I estimated the expected return on the S&P 500 by
9 adding an expected inflation rate to the long-term historical arithmetic average real
10 return on the market. The real return on the market represents the achieved return
11 above the rate of inflation.

12 Morningstar Direct calculates the historical arithmetic-average real-market
13 return over the period 1926 to 2023 to be 9.02%.²⁷ A current consensus for projected
14 inflation is 2.50%.²⁸ Using these estimates, the expected market return is 11.75%.²⁹
15 The MRP then is the difference between the 11.75% expected market return and the
16 projected risk-free rate of 4.60%, or 7.10%.

²⁵Kroll, and its predecessor Duff & Phelps, is a provider of economic, financial, and valuation data that is often relied on by finance professionals and cited in ROR testimony.

²⁶Kroll, *Kroll Increases U.S. Normalized Risk-Free Rate from 3.0% to 3.5%, but Spot 20-Year U.S. Treasury Yield Preferred When Higher* (Jun. 16, 2022). The current 20-year yield of 4.78% exceeds the “normalized” yield of 3.5%. In accordance with Kroll’s prescribed method, the greater of the two shall be used under the normalized Kroll methodology, i.e., 4.78%.

²⁷Morningstar Direct, data through 2023.

²⁸Blue Chip Financial Forecast February 28, 2025.

²⁹ $[(1 + 9.02\%) * (1 + 2.50\%) - 1] * 100$.

1 **Q PLEASE DESCRIBE YOUR MRP ESTIMATES DERIVED USING THE DCF**
2 **METHODOLOGY.**

3 A I employed two versions of the constant growth DCF model to develop estimates of the
4 MRP. I first employed the Federal Energy Regulatory Commission's ("FERC") method
5 of estimating the expected return on the market that was established in its
6 Opinion No. 569-A. FERC's method for estimating the expected return on the market
7 is to perform a constant growth DCF analysis on each of the dividend-paying
8 companies of the S&P 500 index. The growth rate component is based on the average
9 of the growth projections excluding companies with growth rates that were negative or
10 greater than 20%.³⁰ The weighted average growth rate for the remaining companies
11 is 10.50%. After reflecting the FERC prescribed method of adjusting the dividend yield
12 by $(1 + 0.5g)$, the weighted average expected dividend yield is 1.79%. Thus, the
13 DCF-derived expected return on the market is the sum of those two components,
14 or 12.29%. The MRP then is the expected market return of 12.29%, less the projected
15 risk-free rate of 4.60%, or approximately 7.70%.

16 My second DCF-based MRP estimate was derived by performing the same
17 DCF analysis described above, except I used all companies in the S&P 500 index
18 rather than just the dividend-paying companies. The weighted average growth rate for
19 these companies is 10.90%. After reflecting the FERC-prescribed method of adjusting
20 the dividend yield by $(1 + 0.5g)$, the weighted average expected dividend yield is 1.58%.
21 Thus, the DCF-derived expected return on the market is the sum of those two
22 components, or 12.48%. The MRP then is the expected market return of 12.48% less
23 the projected risk-free rate of 4.60%, or approximately 7.90%.

³⁰Opinion No. 569-A, at 210.

1 The average expected market return based on the DCF model is 12.39% and
2 the average MRP based on the two DCF estimates is 7.80%.

3 **Q HOW DO YOUR EXPECTED MARKET RETURNS COMPARE TO CURRENT**
4 **EXPECTATIONS OF FINANCIAL INSTITUTIONS?**

5 **A As shown in Table CCW-11, my average expected market return of 11.31%³¹ exceeds**
6 **long-term market expectations of several financial institutions.**

TABLE CCW-11		
<u>Long-Term Expected Return on the Market</u>		
<u>Source</u>	<u>Term</u>	<u>Expected Return Large Cap Equities</u>
BlackRock Capital Management ¹	30 Years	7.00%
JP Morgan Chase ²	10 - 15 Years	7.00%
Vanguard ³	10 Years	4.2% - 6.2%
Research Affiliates ⁴	10 Years	4.00%

Sources:
¹BlackRock Investment Institute.
²JP Morgan Chase, Long-Term Capital Market Assumptions, 2024 Report.
³Vanguard economic and market outlook.
⁴Research Affiliates, Asset Allocation Interactive.

7 When compared to the expected market returns of financial institutions above,
8 my average expected market return of 11.31% is greater than all of them. For these

³¹11.31% = (9.78% + 12.39% + 11.75%) / 3.

1 reasons, my expected market returns, and the associated MRPs, should be considered
2 reasonable, if not high-end estimates.

3 **Q HOW DO YOUR ESTIMATED MRPs COMPARE TO THAT ESTIMATED BY KROLL?**

4 A On its Cost of Capital portal, Kroll's MRP falls somewhere in the range of 5.00%
5 to 7.17%. My MRP estimates are in the range of 5.00% to 7.80%.

6 **Q HOW DOES KROLL MEASURE A MRP?**

7 A Kroll's range is based on several methodologies. First, Kroll estimated a MRP of 7.17%
8 based on the difference between the total market return on common stocks (S&P 500)
9 less the income return on 20-year Treasury bond investments over the 1926-2023
10 period.³²

11 Second, Kroll used the Ibbotson & Chen supply-side model which produced a
12 MRP estimate of 6.22%.³³ Kroll explains that the historical MRP based on the S&P 500
13 was influenced by an abnormal expansion of P/E ratios relative to earnings and
14 dividend growth. To control for the volatility of extraordinary events and their impacts
15 on P/E ratios, Kroll takes into consideration the three-year average P/E ratio as the
16 current P/E ratio. Therefore, Kroll adjusted this MRP estimate to normalize the growth
17 in the P/E ratio to be more in line with the growth in dividends and earnings.

18 Finally, Kroll developed its own recommended equity, or MRP, by employing an
19 analysis that takes into consideration a wide range of economic information, multiple
20 risk premium estimation methodologies, and the current state of the economy by
21 observing measures such as the level of stock indices and corporate spreads as

³²Kroll Cost of Capital Navigator.

³³*Id.*

1 indicators of perceived risk. Based on this methodology, and utilizing a “normalized”
2 risk-free rate of 4.78%, Kroll concludes that the current expected, or forward-looking,
3 MRP is 5.00%, implying an expected return on the market of 9.78%.³⁴

4 **Q WHAT ARE THE RESULTS OF YOUR CAPM ANALYSIS?**

5 A As shown in Schedule CCW-15, I have provided the results of twelve different
6 applications of the CAPM. The first three results presented are based on the proxy
7 group’s current average *Value Line* beta of 0.91. The results of the CAPM based on
8 these inputs range from 9.32% to 11.69%.

9 The next set of three results presented are based on the proxy group’s historical
10 *Value Line* beta of 0.77. The results of the CAPM based on these inputs range from
11 8.62% to 10.58%.

12 The third set of results presented are based on the proxy group’s current *S&P*
13 *Global Market Intelligence* beta of 0.70. The results of the CAPM based on these inputs
14 range from 8.27% to 10.05%.

15 The final set of results presented are based on the proxy group’s three-year
16 beta estimate of 0.80. The results of the CAPM based on these inputs range from
17 8.76% to 10.80%.

18 My CAPM results are summarized in Table CCW-12.

³⁴Kroll, *Kroll Increases U.S. Normalized Risk-Free Rate from 3.0% to 3.5%, but Spot 20-Year U.S. Treasury Yield Preferred When Higher* (Jun. 16, 2022).

Table CCW-12

CAPM Results Summary

<u>Description</u>	<u>Current VL Beta</u>	<u>Historical VL Beta</u>	<u>Current S&P Beta</u>	<u>3-Year Beta</u>
Kroll Method	9.32%	8.62%	8.27%	8.76%
RP Method	11.05%	10.05%	9.56%	10.25%
FERC DCF Method	<u>11.69%</u>	<u>10.58%</u>	<u>10.05%</u>	<u>10.80%</u>
Average	10.69%	9.75%	9.29%	9.94%

1 **K. Return on Equity Summary**

2 **Q DO YOU BELIEVE THAT SPIRE MISSOURI'S REQUESTED ROE OF 10.5% AND**
3 **EQUITY RATIO OF 55.0% ARE JUSTIFIED?**

4 **A** No, I do not. Spire Missouri's requested ROE of 10.5% and equity ratio of 55.0% are
5 excessive and not supported by either prevailing market conditions or the Company's
6 evolving risk profile. Importantly, two significant regulatory developments materially
7 reduce the Company's risk and, therefore, undermine the need for such elevated return
8 and capital structure parameters.

9 First, Missouri Senate Bill 4, signed into law on April 9, 2025, represents a
10 fundamental improvement in Spire Missouri's regulatory framework. For the first time,
11 the Company will be permitted to utilize a future test year beginning July 1, 2026. This
12 forward-looking ratemaking tool enables utilities to match projected capital investments
13 and operating costs with corresponding revenues in a more timely and accurate
14 manner. By significantly reducing regulatory lag, the new law directly improves Spire
15 Missouri's ability to earn its authorized return, limits under-earning risk, and enhances
16 earnings stability. These factors represent a meaningful reduction in its overall risk and

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1 should be reflected in a commensurately lower allowed ROE and more balanced capital
2 structure.

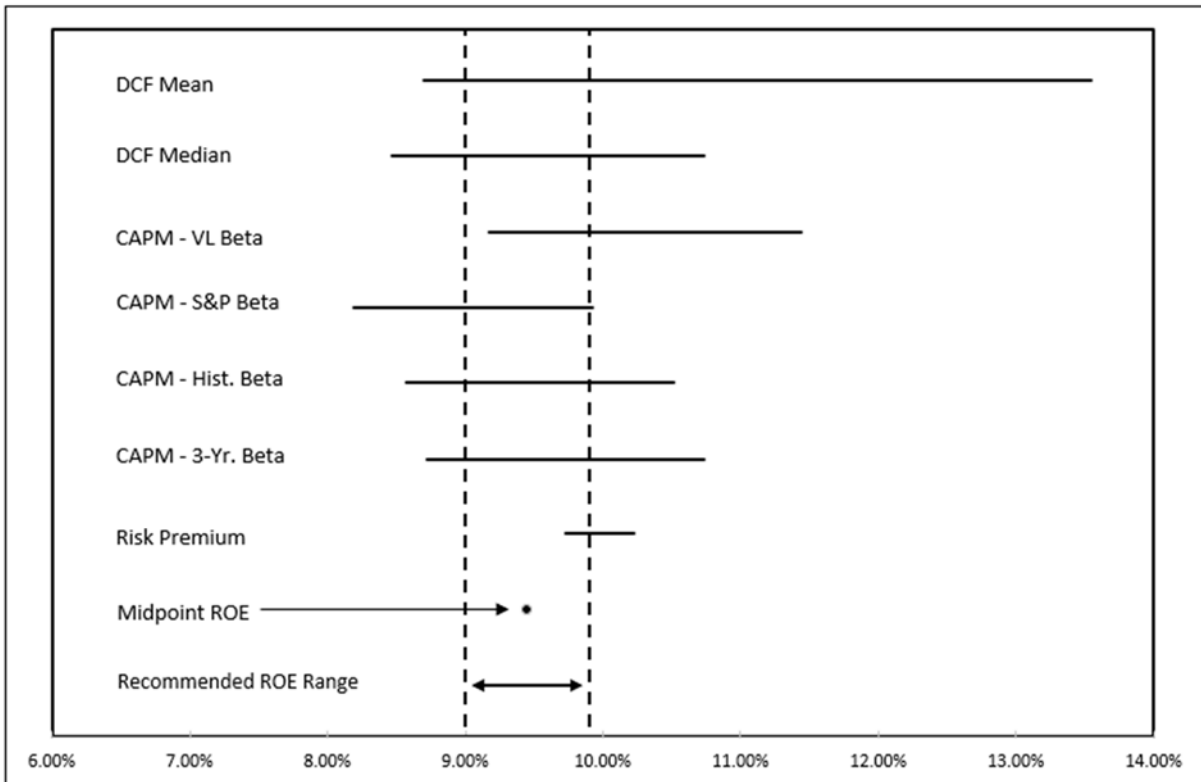
3 Second, Spire Missouri is actively pursuing a DSA that, if it were to be approved,
4 would further insulate the utility from volumetric risk associated with weather volatility
5 and customer conservation—two of the primary drivers of revenue shortfalls in recent
6 years. Decoupling mechanisms have been widely recognized by credit rating agencies
7 and regulators as risk-reducing because they sever the link between sales volume and
8 revenue recovery, ensuring that the utility is able to recover its fixed costs even during
9 periods of lower-than-forecast usage. My colleague, Mr. Greg Meyer, will address the
10 Company’s proposed DSA.

11 Taken together, the implementation of a future test year under Senate Bill 4 and
12 the proposed DSA would substantially mitigate the financial and regulatory risks
13 historically faced by Spire Missouri. As a result, there is no reasonable justification for
14 a ROE as high as 10.5%—well above the national average—or for further inflating the
15 Company’s equity ratio beyond how the Company is currently capitalized with a 53.2%
16 equity layer. Instead, these developments support a more moderate ROE and
17 maintaining or reducing the current equity ratio, reflecting the improved risk
18 environment and aligning with the Commission’s obligation to approve rates that are
19 just and reasonable for both customers and shareholders. Should the Commission
20 authorize the Company’s proposed DSA and/or its requested equity ratio, an ROE in
21 the lower half of my range would be warranted.

1 Q **BASED ON THE RESULTS OF YOUR RETURN ON COMMON EQUITY ANALYSIS**
2 **DESCRIBED ABOVE, WHAT RETURN ON COMMON EQUITY DO YOU**
3 **RECOMMEND FOR THE COMPANY?**

4 A The results of my analyses are summarized in Figure CCW-5. In this figure, I present
5 the various measures of central tendency for each of my analytical models.

Figure CCW-5



6 Based on my analyses of the various methodologies described above, I
7 estimate the Company's current market ROE to be in the reasonable range of 9.00%
8 to 9.90%. My recommended range accounts for the unsustainable growth rates
9 assumed in the constant growth DCF model and the irrational assumption that *Value*
10 *Line's* current beta estimates are reflective of current investor expectations. In addition,
11 my recommended range is captured by the range of results for each of the models and
12 is consistent with measures of central tendency of those results. Based on my

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1 assessment of Spire Missouri's overall risk profile and the results of these analytical
2 methods, I would recommend that this Commission authorize Spire Missouri a ROE
3 of 9.45%, which is the midpoint of the range produced by these models. Should the
4 Commission authorize the Company's DSA and/or Spire Missouri's requested equity
5 ratio of 55.0%, an ROE in the lower half of my range (i.e., 9.00% to 9.45%) would be
6 warranted.

7 **Q DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

8 **A** Yes, it does.

Qualifications of Christopher C. Walters

1 **Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A Christopher C. Walters. My business address is 16690 Swingley Ridge Road,
3 Suite 140, Chesterfield, MO 63017.

4 **Q PLEASE STATE YOUR OCCUPATION.**

5 A I am a consultant in the field of public utility regulation and a Principal with the firm of
6 BAI, energy, economic and regulatory consultants.

7 **Q PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL
8 EMPLOYMENT EXPERIENCE.**

9 A I received a Bachelor of Science Degree in Business Economics and Finance from
10 Southern Illinois University Edwardsville. I have also received a Master of Business
11 Administration Degree from Lindenwood University.

12 As a Principal at BAI, I perform detailed technical analyses and research to
13 support regulatory projects including expert testimony covering various regulatory
14 issues. Since my career at BAI began in 2011, I have held the positions of Analyst,
15 Associate Consultant, Consultant, Senior Consultant, and Associate. Throughout my
16 tenure, I have been involved with several regulated projects for electric, natural gas
17 and water and wastewater utilities, as well as competitive procurement of electric power
18 and gas supply. My regulatory project work includes estimating the cost of equity
19 capital, capital structure evaluations, assessing financial integrity, merger and
20 acquisition related issues, risk management related issues, depreciation rate studies,
21 and other revenue requirement issues.

1 BAI was formed in April 1995. BAI and its predecessor firm have participated
2 in more than 700 regulatory proceedings in 40 states and Canada.

3 BAI provides consulting services in the economic, technical, accounting, and
4 financial aspects of public utility rates and in the acquisition of utility and energy
5 services through RFPs and negotiations, in both regulated and unregulated markets.
6 Our clients include large industrial and institutional customers, some utilities and, on
7 occasion, state regulatory agencies. We also prepare special studies and reports,
8 forecasts, surveys and siting studies, and present seminars on utility-related issues.

9 In general, we are engaged in energy and regulatory consulting, economic
10 analysis and contract negotiation. In addition to our main office in St. Louis, the firm
11 also has branch offices in Corpus Christi, Texas; Louisville, Kentucky and
12 Phoenix, Arizona.

13 **Q HAVE YOU EVER TESTIFIED BEFORE A REGULATORY BODY?**

14 **A** Yes. I have sponsored testimony before state regulatory commissions including:
15 Arizona, Arkansas, Colorado, Delaware, Florida, Georgia, Illinois, Iowa, Kansas,
16 Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Missouri,
17 Montana, Nevada, New Mexico, North Carolina, Ohio, Oklahoma, Oregon, South
18 Carolina, Texas, Utah, and Wyoming. In addition, I have also sponsored testimony
19 before the City Council of New Orleans and an affidavit before the FERC.

20 **Q PLEASE DESCRIBE ANY PROFESSIONAL REGISTRATIONS OR**
21 **ORGANIZATIONS TO WHICH YOU BELONG.**

22 **A** I earned the Chartered Financial Analyst (“CFA”) designation from the CFA Institute.
23 The CFA charter was awarded after successfully completing three examinations which

1 covered the subject areas of financial accounting and reporting analysis, corporate
2 finance, economics, fixed income and equity valuation, derivatives, alternative
3 investments, risk management, and professional and ethical conduct. I am a member
4 of the CFA Institute and the CFA Society of St. Louis.

527038

Spire Missouri, Inc.

Electric Utilities
(Valuation Metrics)

Line	Company	Dividend per Share ¹																			
		19-Year																			
		Average (1)	2024 ² (2)	2023 (3)	2022 (4)	2021 (5)	2020 (6)	2019 (7)	2018 (8)	2017 (9)	2016 (10)	2015 (11)	2014 (12)	2013 (13)	2012 (14)	2011 (15)	2010 (16)	2009 (17)	2008 (18)	2007 (19)	2006 (20)
1	ALLETE	2.09	2.82	2.71	2.60	2.52	2.47	2.35	2.24	2.14	2.08	2.02	1.96	1.90	1.84	1.78	1.76	1.76	1.72	1.64	1.45
2	Alliant Energy	1.16	1.92	1.81	1.71	1.61	1.52	1.42	1.34	1.26	1.18	1.10	1.02	0.94	0.90	0.85	0.79	0.75	0.70	0.64	0.58
3	Ameren Corp.	1.99	2.68	2.52	2.36	2.20	2.00	1.92	1.85	1.78	1.72	1.66	1.61	1.60	1.60	1.56	1.54	1.54	2.54	2.54	2.54
4	American Electric Power	2.30	3.57	3.37	3.17	3.00	2.84	2.71	2.53	2.39	2.27	2.15	2.03	1.95	1.88	1.85	1.71	1.64	1.64	1.58	1.50
5	Avangrid, Inc.	1.75	N/A	1.76	1.76	1.76	1.76	1.76	1.74	1.73	1.73	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	Avista Corp.	1.28	1.90	1.84	1.76	1.69	1.62	1.55	1.49	1.43	1.37	1.32	1.27	1.22	1.16	1.10	1.00	0.81	0.69	0.60	0.57
7	Black Hills	1.79	2.60	2.50	2.41	2.29	2.17	2.05	1.93	1.81	1.68	1.62	1.56	1.52	1.48	1.46	1.44	1.42	1.40	1.37	1.32
8	CenterPoint Energy	0.85	0.81	0.77	0.72	0.66	0.60	0.86	1.12	1.35	1.03	0.99	0.95	0.83	0.81	0.79	0.78	0.76	0.73	0.68	0.60
9	CMS Energy Corp.	1.20	2.06	1.95	1.84	1.74	1.63	1.53	1.43	1.33	1.24	1.16	1.08	1.02	0.96	0.84	0.66	0.50	0.36	0.20	N/A
10	Consol. Edison	2.70	3.32	3.24	3.16	3.10	3.06	2.96	2.86	2.76	2.68	2.60	2.52	2.46	2.42	2.40	2.38	2.36	2.34	2.32	2.30
11	Dominion Resources	2.43	2.67	2.67	2.67	2.52	3.45	3.67	3.34	3.04	2.80	2.59	2.40	2.25	2.11	1.97	1.83	1.75	1.58	1.46	1.38
12	DTE Energy	3.00	4.15	3.88	3.54	3.88	4.12	3.85	3.59	3.36	3.06	2.84	2.69	2.59	2.42	2.32	2.18	2.12	2.12	2.12	2.08
13	Duke Energy	3.37	4.14	4.06	3.98	3.90	3.82	3.75	3.64	3.49	3.36	3.24	3.15	3.09	3.03	2.97	2.91	2.82	2.70	2.58	N/A
14	Edison Int'l	1.93	3.17	2.99	2.84	2.69	2.58	2.48	2.43	2.23	1.98	1.73	1.48	1.37	1.31	1.29	1.27	1.25	1.23	1.18	1.10
15	El Paso Electric	1.11	N/A	N/A	N/A	N/A	N/A	N/A	1.42	1.32	1.23	1.17	1.11	1.05	0.97	0.66	N/A	N/A	N/A	N/A	N/A
16	Entergy Corp.	3.32	2.30	4.34	4.10	3.86	3.74	3.66	3.58	3.50	3.42	3.34	3.32	3.32	3.32	3.24	3.00	3.00	2.58	2.16	2.16
17	Eversource Energy	1.69	2.86	2.70	2.55	2.41	2.27	2.14	2.02	1.90	1.78	1.67	1.57	1.47	1.32	1.10	1.03	0.95	0.83	0.78	0.73
18	Evergy, Inc.	2.40	2.60	2.48	2.33	2.18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19	Exelon Corp.	1.61	1.52	1.44	1.35	1.53	1.53	1.45	1.38	1.31	1.26	1.24	1.24	1.46	2.10	2.10	2.10	2.10	2.05	1.82	1.64
20	FirstEnergy Corp.	1.77	1.70	1.60	1.56	1.56	1.56	1.53	1.82	1.44	1.44	1.44	1.44	1.65	2.20	2.20	2.20	2.20	2.20	2.05	1.85
21	Fortis Inc.	1.51	2.39	2.29	2.17	2.08	1.97	1.86	1.75	1.65	1.55	1.43	1.30	1.25	1.21	1.17	1.12	1.04	1.00	0.82	0.67
22	Great Plains Energy	1.11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.10	1.06	1.00	0.94	0.88	0.86	0.84	0.83	0.83	1.66	1.66	1.66
23	Hawaiian Elec.	1.25	N/A	1.08	1.40	1.36	1.32	1.28	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24
24	IDACORP, Inc.	2.02	3.35	3.20	3.04	2.88	2.72	2.56	2.40	2.24	2.08	1.92	1.76	1.57	1.37	1.20	1.20	1.20	1.20	1.20	1.20
25	MGE Energy	1.21	1.76	1.67	1.59	N/A	1.45	1.38	1.32	1.26	1.21	1.16	1.11	1.07	1.04	1.01	0.99	0.97	0.96	0.94	0.93
26	NextEra Energy, Inc.	0.96	2.06	1.87	1.70	1.54	1.40	1.25	1.11	0.98	0.87	0.77	0.73	0.66	0.60	0.55	0.50	0.47	0.45	0.41	0.38
27	NorthWestern Corp	1.88	2.60	2.56	2.52	2.48	2.40	2.30	2.20	2.10	2.00	1.92	1.60	1.52	1.48	1.44	1.36	1.34	1.32	1.28	1.24
28	OGE Energy	1.13	1.68	1.66	1.64	1.63	1.58	1.51	1.40	1.27	1.16	1.05	0.95	0.85	0.80	0.76	0.73	0.71	0.70	0.68	0.67
29	Otter Tail Corp.	1.34	1.87	1.75	1.65	1.56	1.48	1.40	1.34	1.28	1.25	1.23	1.21	1.19	1.19	1.19	1.19	1.19	1.19	1.17	1.15
30	Pinnacle West Capital	2.65	3.55	3.49	3.42	3.36	3.23	3.04	2.87	2.70	2.56	2.44	2.33	2.23	2.67	2.10	2.10	2.10	2.10	2.10	2.03
31	TXNM Energy	0.92	1.57	1.49	1.41	0.98	1.25	1.18	1.09	0.99	0.88	0.80	0.76	0.68	0.58	0.50	0.50	0.50	0.61	0.91	0.86
32	Portland General	1.30	1.98	1.88	1.79	1.70	1.59	1.52	1.43	1.34	1.26	1.18	1.12	1.10	1.08	1.06	1.04	1.01	0.97	0.93	0.88
33	PPL Corp.	1.38	1.03	0.95	0.88	1.66	1.66	1.65	1.64	1.58	1.52	1.50	1.49	1.47	1.44	1.40	1.40	1.38	1.34	1.22	1.10
34	Public Serv. Enterprise	1.66	2.40	2.28	2.16	2.04	1.96	1.88	1.80	1.72	1.64	1.56	1.48	1.44	1.42	1.37	1.37	1.33	1.29	1.17	1.14
35	SCANA Corp.	2.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.45	2.30	2.18	2.10	2.03	1.98	1.94	1.90	1.88	1.84	1.76	1.68
36	Sempra Energy	2.68	2.48	2.38	4.58	4.40	4.18	3.87	3.58	3.29	3.02	2.80	2.64	2.52	2.40	1.92	1.56	1.56	1.37	1.24	1.20
37	Southern Co.	2.17	2.86	2.78	2.70	2.62	2.54	2.46	2.38	2.30	2.22	2.15	2.08	2.01	1.94	1.87	1.80	1.73	1.66	1.60	1.54
38	Vectren Corp.	1.42	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.71	1.62	1.54	1.46	1.43	1.41	1.39	1.37	1.35	1.31	1.27	1.23
39	WEC Energy Group	1.75	3.34	3.12	2.91	2.71	2.53	2.36	2.21	2.08	1.98	1.74	1.56	1.45	1.20	1.04	0.80	0.68	0.54	0.50	0.46
40	Westar Energy	1.30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.60	1.52	1.44	1.40	1.36	1.32	1.28	1.24	1.20	1.16	1.08	0.98
41	Xcel Energy Inc.	1.37	2.19	2.08	1.95	1.83	1.72	1.62	1.52	1.44	1.36	1.28	1.20	1.11	1.07	1.03	1.00	0.97	0.94	0.91	0.88
42	Average	1.80	2.47	2.37	2.33	2.28	2.23	2.14	2.03	1.90	1.79	1.70	1.61	1.56	1.54	1.46	1.42	1.38	1.39	1.32	1.24
43	Industry Average Growth	3.91%	4.32%	1.48%	2.08%	2.47%	4.36%	5.29%	6.91%	5.99%	5.44%	5.35%	3.49%	1.01%	5.77%	2.46%	3.13%	-0.48%	4.89%	6.45%	

Sources:

¹ Data for years 2019 and prior were retrieved from the Value Line Investment Survey Investment Analyzer Software, downloaded on June 18, 2021.

Data for the years 2020 - 2023 was retrieved from Value Line Investment Surveys.

² The Value Line Investment Survey, January 17, February 7, and March 7, 2025.

Spire Missouri, Inc.

Electric Utilities
(Valuation Metrics)

Line	Company	Earnings per Share ¹																			
		19-Year Average (1)	2024 ² (2)	2023 (3)	2022 (4)	2021 (5)	2020 (6)	2019 (7)	2018 (8)	2017 (9)	2016 (10)	2015 (11)	2014 (12)	2013 (13)	2012 (14)	2011 (15)	2010 (16)	2009 (17)	2008 (18)	2007 (19)	2006 (20)
1	ALLETE	3.01	3.10	4.30	3.38	3.23	3.35	3.33	3.38	3.13	3.14	3.38	2.90	2.63	2.58	2.65	2.19	1.89	2.82	3.08	2.77
2	Alliant Energy	1.86	2.69	2.78	2.73	2.63	2.47	2.33	2.19	1.99	1.65	1.69	1.74	1.65	1.53	1.38	1.38	0.95	1.27	1.35	1.03
3	Ameren Corp.	3.07	4.59	4.37	4.14	3.84	3.50	3.35	3.32	2.77	2.68	2.38	2.40	2.10	2.41	2.47	2.77	2.78	2.88	2.98	2.66
4	American Electric Power	3.77	5.61	5.24	5.09	4.96	4.42	4.08	3.90	3.62	4.23	3.59	3.34	3.18	2.98	3.13	2.60	2.97	2.99	2.86	2.86
5	Avangrid, Inc.	1.88	N/A	2.09	2.32	1.97	1.88	2.26	1.92	1.67	1.98	0.86	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	Avista Corp.	1.86	2.40	2.24	2.12	2.10	1.90	2.97	2.07	1.95	2.15	1.89	1.84	1.85	1.32	1.72	1.65	1.58	1.36	0.72	1.47
7	Black Hills	2.77	3.90	3.91	3.97	3.74	3.73	3.53	3.47	3.38	2.63	2.83	2.89	2.61	1.97	1.01	1.66	2.32	0.18	2.68	2.21
8	CenterPoint Energy	1.25	1.58	1.37	1.59	0.94	1.29	1.49	0.74	1.57	1.00	1.08	1.42	1.24	1.35	1.27	1.07	1.01	1.30	1.17	1.33
9	CMS Energy Corp.	1.91	3.33	3.01	2.84	2.58	2.64	2.39	2.32	2.17	1.98	1.89	1.74	1.66	1.53	1.45	1.33	0.93	1.23	0.64	0.64
10	Consol. Edison	3.99	5.35	5.04	4.55	4.74	3.94	4.08	4.55	4.10	3.94	4.05	3.62	3.93	3.86	3.57	3.47	3.14	3.36	3.48	2.95
11	Dominion Resources	2.85	2.75	1.99	4.11	3.19	1.82	2.19	3.25	3.53	3.44	3.20	3.05	3.09	2.75	2.76	2.89	2.64	3.04	2.13	2.40
12	DTE Energy	4.68	6.77	6.76	5.52	4.10	7.08	6.31	6.17	5.73	4.83	4.44	5.10	3.76	3.88	3.67	3.74	3.24	2.73	2.66	2.45
13	Duke Energy	4.19	5.90	5.56	5.27	4.93	3.92	5.07	4.13	4.22	3.71	4.10	4.13	3.98	3.71	4.14	4.02	3.39	3.03	3.60	2.73
14	Edison Int'l	3.32	4.95	4.76	1.60	2.00	1.72	3.98	-1.26	4.51	3.94	4.15	4.33	3.78	4.55	3.23	3.35	3.24	3.68	3.32	3.28
15	El Paso Electric	2.02	N/A	N/A	N/A	N/A	N/A	N/A	2.07	2.42	2.39	2.03	2.27	2.20	2.26	2.48	2.07	1.50	1.73	1.63	1.27
16	Entergy Corp.	6.17	2.45	11.10	5.37	6.87	6.90	6.30	5.88	5.19	6.88	5.81	5.77	4.96	6.02	7.55	6.66	6.30	6.20	5.60	5.36
17	Eversource Energy	2.79	4.55	4.34	4.09	3.54	3.55	3.45	3.25	3.11	2.96	2.76	2.58	2.49	1.89	2.22	2.10	1.91	1.86	1.59	0.82
18	Evergy, Inc.	3.52	3.80	3.17	3.26	3.83	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19	Exelon Corp.	2.82	2.45	2.38	2.26	1.74	2.60	3.01	2.07	2.78	1.80	2.54	2.10	2.31	1.92	3.75	3.87	4.29	4.10	4.03	3.50
20	FirstEnergy Corp.	2.58	2.65	2.56	2.41	2.69	1.85	1.84	1.33	2.73	2.10	2.00	0.85	2.97	2.13	1.88	3.25	3.32	4.38	4.22	3.82
21	Fortis Inc.	2.10	3.28	3.10	2.78	2.61	2.60	2.68	2.52	2.66	1.89	2.11	1.38	1.63	1.65	1.74	1.62	1.51	1.52	1.29	1.36
22	Great Plains Energy	1.33	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.06	1.61	1.37	1.57	1.62	1.35	1.25	1.53	1.03	1.16	1.85	1.62
23	Hawaiian Elec.	2.18	12.00	1.81	2.20	2.25	1.81	1.99	1.85	1.64	2.29	1.50	1.64	1.62	1.67	1.44	1.21	0.91	1.07	1.11	1.33
24	IDACORP, Inc.	3.82	5.45	5.14	5.11	4.85	4.69	4.61	4.49	4.21	3.94	3.87	3.85	3.64	3.37	3.36	2.95	2.64	2.18	1.86	2.35
25	MGE Energy	2.19	3.45	3.25	3.07	N/A	2.60	2.51	2.43	2.20	2.18	2.06	2.32	2.16	1.86	1.76	1.67	1.47	1.59	1.51	1.37
26	NextEra Energy, Inc.	1.65	3.43	3.17	2.90	1.81	2.10	1.94	1.67	1.63	1.45	1.52	1.40	1.21	1.14	1.21	1.19	0.99	1.02	0.82	0.81
27	NorthWestern Corp.	2.74	3.40	3.22	3.29	3.60	3.06	3.53	3.40	3.34	3.39	2.90	2.99	2.46	2.26	2.53	2.14	2.02	1.77	1.44	1.31
28	OGE Energy	1.82	2.19	2.07	2.25	2.36	2.08	2.24	2.12	1.92	1.69	1.69	1.98	1.94	1.79	1.73	1.50	1.33	1.25	1.32	1.23
29	Otter Tail Corp.	2.47	7.17	7.00	6.78	4.23	2.34	2.17	2.06	1.86	1.60	1.56	1.55	1.37	1.05	0.45	0.38	0.71	1.09	1.78	1.69
30	Pinnacle West Capital	3.84	5.10	4.41	4.26	5.47	4.87	4.77	4.54	4.43	3.95	3.92	3.58	3.66	3.50	2.99	3.08	2.26	2.12	2.96	3.17
31	TXNM Energy	1.64	2.75	2.82	2.69	2.27	2.15	2.28	1.66	1.92	1.65	1.64	1.45	1.41	1.31	1.08	0.87	0.58	0.11	0.76	1.72
32	Portland General	2.08	3.10	2.38	2.74	2.72	1.72	2.39	2.37	2.29	2.16	2.04	2.18	1.77	1.87	1.95	1.66	1.31	1.39	2.33	1.14
33	PPL Corp.	2.12	1.70	1.60	1.41	0.53	2.04	2.37	2.58	2.11	2.79	2.37	2.38	2.38	2.61	2.61	2.29	1.19	2.45	2.63	2.29
34	Public Serv. Enterprise	2.99	3.65	3.48	3.47	2.55	3.61	3.90	2.76	2.82	2.83	3.30	2.99	2.45	2.44	3.11	3.07	3.08	2.90	2.59	1.85
35	SCANA Corp.	3.30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.20	4.16	3.81	3.79	3.39	3.15	2.97	2.98	2.85	2.95	2.74	2.59
36	Sempra Energy	4.95	4.75	4.61	9.21	4.01	6.58	5.97	5.48	4.63	4.24	5.23	4.63	4.22	4.35	4.47	4.02	4.78	4.43	4.26	4.23
37	Southern Co.	2.90	4.05	3.64	3.61	3.42	3.25	3.17	3.00	3.21	2.83	2.84	2.77	2.70	2.67	2.55	2.36	2.32	2.25	2.28	2.10
38	Vectren Corp.	1.94	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.60	2.55	2.39	2.02	1.66	1.94	1.73	1.64	1.79	1.63	1.83	1.44
39	WEC Energy Group	2.88	4.89	4.63	4.46	4.11	3.79	3.58	3.34	3.14	2.96	2.34	2.59	2.51	2.35	2.18	1.92	1.60	1.52	1.42	1.32
40	Westar Energy	1.96	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.27	2.43	2.09	2.35	2.27	2.15	1.79	1.80	1.28	1.31	1.84	1.88
41	Xcel Energy Inc.	2.22	3.55	3.35	3.17	2.96	2.79	2.64	2.47	2.30	2.21	2.10	2.03	1.91	1.85	1.72	1.56	1.49	1.46	1.35	1.35
42	Average	2.82	4.08	3.80	3.61	3.24	3.16	3.28	2.87	2.90	2.81	2.68	2.65	2.52	2.44	2.43	2.35	2.17	2.19	2.25	2.09
43	Industry Average Growth	3.87%	7.43%	5.10%	11.50%	2.47%	-3.54%	14.00%	-0.78%	3.26%	4.58%	1.09%	5.23%	3.58%	0.03%	3.76%	8.23%	-0.89%	-2.75%	7.36%	

Sources:
¹ Data for years 2019 and prior were retrieved from the Value Line Investment Survey Investment Analyzer Software, downloaded on June 18, 2021.
² Data for the years 2020 - 2023 was retrieved from Value Line Investment Surveys.
² The Value Line Investment Survey, January 17, February 7, and March 7, 2025.

Spire Missouri, Inc.

Electric Utilities (Valuation Metrics)

Line	Company	Cash Flow / Capital Spending ¹						3 - 5 yr ²
		2020 (1)	2021 (2)	2022 (3)	2023 (4)	2024 (5)	2025 ² (6)	Projection (7)
1	ALLETE	0.74x	0.80x	2.26x	1.42x	2.21x	1.36x	1.39x
2	Alliant Energy	0.82x	0.97x	0.94x	0.95x	0.97x	1.04x	1.27x
3	Ameren Corp.	0.51x	0.59x	0.72x	0.74x	0.84x	0.88x	0.98x
4	American Electric Power	0.74x	0.69x	0.73x	0.72x	0.82x	0.87x	1.11x
5	Avista Corp.	0.85x	0.87x	0.83x	0.78x	0.84x	0.86x	0.88x
6	Black Hills	0.72x	0.76x	0.85x	0.82x	0.68x	0.75x	0.87x
7	CenterPoint Energy	0.88x	0.62x	0.62x	0.57x	0.55x	0.52x	0.53x
8	CMS Energy Corp.	0.82x	0.77x	0.78x	0.92x	0.80x	0.61x	0.95x
9	Consol. Edison	0.82x	0.89x	0.83x	0.72x	0.84x	0.88x	0.99x
10	Dominion Resources	1.00x	0.89x	0.74x	0.63x	0.51x	0.61x	0.74x
11	DTE Energy	0.67x	0.70x	0.75x	0.82x	0.87x	0.90x	1.01x
12	Duke Energy	0.86x	0.93x	0.81x	0.79x	0.77x	0.85x	0.99x
13	Edison Int'l	0.67x	0.74x	0.67x	0.75x	0.82x	0.84x	0.90x
14	El Paso Electric	1.00x	0.83x	N/A	N/A	N/A	N/A	N/A
15	Entergy Corp.	0.81x	1.05x	0.98x	0.85x	0.81x	0.73x	0.75x
16	Eversource Energy	0.95x	0.74x	0.72x	0.86x	0.76x	0.66x	0.84x
17	Evergy, Inc.	1.06x	0.96x	0.94x	0.86x	0.86x	0.92x	1.01x
18	Exelon Corp.	1.30x	1.32x	0.96x	0.99x	0.80x	0.83x	0.91x
19	FirstEnergy Corp.	0.96x	0.91x	0.86x	0.80x	0.82x	0.84x	1.03x
20	Fortis Inc.	0.60x	0.74x	0.75x	0.82x	0.85x	0.89x	0.98x
21	Hawaiian Elec.	1.10x	1.42x	1.30x	1.51x	1.20x	1.08x	1.19x
22	IDACORP, Inc.	1.25x	1.16x	0.83x	0.63x	0.56x	0.61x	0.91x
23	MGE Energy	0.73x	0.87x	N/A	1.26x	1.10x	0.95x	1.10x
24	NextEra Energy, Inc.	0.58x	0.69x	0.54x	0.59x	0.59x	0.60x	0.67x
25	NorthWestern Corp	0.98x	0.82x	0.66x	0.75x	0.87x	0.91x	1.04x
26	OGE Energy	1.43x	1.13x	0.99x	0.97x	0.99x	1.06x	1.28x
27	Otter Tail Corp.	0.45x	1.42x	1.45x	1.08x	1.46x	1.47x	1.09x
28	Pinnacle West Capital	0.98x	0.85x	0.78x	0.95x	0.74x	0.76x	0.89x
29	TXNM Energy	0.59x	0.51x	0.63x	0.63x	0.53x	0.52x	0.64x
30	Portland General	0.75x	0.97x	1.01x	0.58x	0.62x	0.74x	0.84x
31	PPL Corp.	1.06x	1.12x	1.35x	0.98x	0.97x	1.00x	1.06x
32	Public Serv. Enterprise	1.00x	1.05x	0.82x	0.87x	0.90x	0.92x	0.97x
33	Sempra Energy	0.92x	0.78x	0.92x	0.96x	0.63x	0.64x	0.68x
34	Southern Co.	1.01x	0.93x	0.97x	0.97x	0.90x	0.97x	1.14x
35	WEC Energy Group	0.70x	0.75x	0.87x	0.92x	1.01x	1.09x	1.35x
36	Xcel Energy Inc.	0.99x	0.86x	0.80x	0.92x	0.65x	0.61x	0.84x
37	Average	0.87x	0.89x	0.90x	0.87x	0.86x	0.85x	0.97x
38	Median	0.86x	0.86x	0.83x	0.85x	0.82x	0.86x	0.98x

Source:

¹ Data for the years 2020 - 2024 was retrieved from Value Line Investment Surveys.

² The Value Line Investment Survey, January 17, February 7, and March 7, 2025.

Notes:

Based on the projected Cash Flow per share and Capital Spending per share.

Spire Missouri, Inc.

Electric Utilities
(Valuation Metrics)

Line	Company	Percent Dividends to Book Value ¹																			
		18-Year																			
		Average (1)	2024 ^{2a} (2)	2023 (3)	2022 (4)	2021 (5)	2020 (6)	2019 (7)	2018 (8)	2017 (9)	2016 (10)	2015 (11)	2014 (12)	2013 (13)	2012 (14)	2011 (15)	2010 (16)	2009 (17)	2008 (18)	2007 (19)	2006 (20)
1	ALLETE	5.88%	5.51%	5.56%	5.52%	5.56%	5.61%	5.44%	5.35%	5.29%	5.45%	5.45%	5.59%	5.86%	6.04%	6.18%	6.46%	6.67%	6.78%	6.80%	6.62%
2	Alliant Energy	6.42%	7.04%	6.84%	6.84%	6.73%	6.68%	6.68%	6.90%	7.32%	6.96%	6.70%	6.56%	6.36%	6.37%	6.26%	6.06%	5.98%	5.48%	5.23%	5.04%
3	Ameren Corp.	6.04%	6.26%	6.26%	5.88%	5.84%	5.67%	5.87%	5.92%	6.01%	5.86%	5.78%	5.82%	5.93%	5.87%	4.76%	4.79%	4.66%	7.74%	7.84%	7.97%
4	American Electric Power	6.38%	7.05%	6.95%	6.80%	6.74%	6.86%	6.82%	6.56%	6.43%	6.42%	5.90%	5.91%	5.99%	6.10%	6.04%	5.97%	6.23%	6.28%	6.32%	6.32%
5	Avangrid, Inc.	3.15%	N/A	3.46%	3.51%	3.57%	3.58%	3.57%	3.57%	3.54%	3.53%	0.00%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	Avista Corp.	5.11%	5.80%	5.78%	5.65%	5.61%	5.53%	5.37%	5.52%	5.41%	5.33%	5.38%	5.33%	5.65%	5.51%	5.42%	5.07%	4.23%	3.77%	3.44%	3.26%
7	Black Hills	5.33%	5.33%	5.30%	5.32%	5.32%	5.32%	5.34%	5.31%	5.67%	5.55%	5.68%	5.06%	5.17%	5.31%	5.30%	5.14%	5.10%	5.15%	5.34%	5.58%
8	CenterPoint Energy	9.08%	4.95%	5.03%	4.90%	4.82%	4.85%	6.59%	8.94%	12.39%	12.82%	12.30%	8.96%	8.23%	8.05%	7.97%	10.36%	11.28%	12.40%	12.12%	12.09%
9	CMS Energy Corp.	6.76%	7.69%	7.84%	7.89%	7.87%	8.57%	8.66%	8.52%	8.43%	8.14%	8.16%	8.10%	7.86%	7.94%	7.05%	5.90%	4.38%	3.31%	2.11%	0.00%
10	Consol. Edison	5.94%	5.23%	5.29%	5.42%	5.48%	5.56%	5.46%	5.49%	5.55%	5.72%	5.84%	5.87%	5.88%	5.97%	6.15%	6.27%	6.47%	6.60%	7.12%	7.40%
11	Dominion Resources	10.08%	8.64%	8.69%	8.54%	8.00%	11.72%	10.39%	11.31%	11.41%	12.04%	12.20%	12.16%	11.24%	11.50%	9.81%	8.86%	9.38%	9.14%	8.95%	7.46%
12	DTE Energy	6.32%	7.43%	7.25%	7.64%	8.64%	6.43%	6.34%	6.38%	6.34%	6.09%	5.81%	5.72%	5.79%	5.66%	5.60%	5.49%	5.59%	5.76%	5.91%	6.28%
13	Duke Energy	5.54%	6.57%	6.37%	6.47%	6.34%	6.39%	6.12%	6.04%	5.85%	5.73%	5.61%	5.45%	5.28%	5.22%	5.81%	5.72%	5.66%	5.45%	5.12%	0.00%
14	Edison Int'l	5.79%	8.33%	8.30%	9.24%	7.36%	6.96%	6.73%	7.56%	6.23%	5.39%	4.97%	4.41%	4.48%	4.54%	4.16%	3.90%	4.12%	4.19%	4.53%	4.65%
15	El Paso Electric	2.94%	N/A	N/A	N/A	N/A	5.13%	N/A	4.94%	4.67%	4.62%	4.53%	4.46%	4.72%	3.47%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
16	Energy Corp.	6.69%	6.55%	6.32%	6.68%	6.72%	6.85%	7.13%	7.65%	7.90%	7.56%	6.44%	5.95%	6.15%	6.42%	6.53%	6.82%	6.59%	7.13%	6.34%	5.34%
17	Eversource Energy	5.17%	6.63%	6.66%	5.74%	5.69%	5.54%	5.59%	5.57%	5.43%	5.27%	5.12%	4.99%	4.82%	4.49%	4.86%	4.75%	4.66%	4.26%	4.16%	4.00%
18	Evergy, Inc.	5.62%	5.90%	5.90%	5.57%	5.41%	5.32%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19	Exelon Corp.	6.96%	5.77%	5.59%	5.42%	4.36%	4.62%	4.38%	4.34%	4.23%	4.51%	4.42%	4.72%	5.49%	8.38%	9.68%	10.25%	10.96%	12.21%	11.87%	11.02%
20	FirstEnergy Corp.	8.80%	8.99%	8.81%	8.78%	10.26%	11.70%	11.86%	13.82%	16.34%	10.21%	4.91%	4.88%	5.44%	7.03%	6.93%	7.85%	7.84%	8.10%	6.96%	6.54%
21	Fortis Inc.	5.44%	5.72%	5.84%	5.95%	5.59%	5.39%	5.08%	5.03%	5.19%	4.80%	5.00%	5.22%	5.58%	5.81%	5.70%	5.91%	5.60%	5.55%	4.90%	5.47%
22	Great Plains Energy	5.31%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.78%	4.27%	4.21%	4.02%	3.91%	3.93%	3.84%	3.90%	4.03%	7.76%	9.13%	9.94%
23	Hawaiian Elec.	7.09%	N/A	5.07%	6.96%	6.22%	6.17%	6.12%	6.24%	6.43%	6.51%	6.91%	7.10%	7.27%	7.62%	7.77%	7.91%	7.96%	8.08%	8.11%	9.22%
24	IDACORP, Inc.	4.73%	5.27%	5.57%	5.48%	5.45%	5.36%	5.24%	5.11%	5.02%	4.87%	4.70%	4.53%	4.26%	3.91%	3.62%	3.87%	4.11%	4.32%	4.48%	4.66%
25	MGE Energy	6.07%	5.33%	5.30%	5.32%	N/A	5.22%	5.59%	5.60%	5.61%	5.79%	5.82%	5.84%	6.01%	6.22%	6.36%	6.58%	6.72%	6.87%	7.24%	7.77%
26	NextEra Energy, Inc.	6.79%	8.46%	8.08%	8.61%	8.13%	7.51%	6.61%	6.22%	6.55%	6.69%	6.29%	6.49%	6.36%	6.34%	6.12%	5.82%	5.99%	6.30%	6.22%	6.21%
27	NorthWestern Corp.	5.81%	5.61%	5.63%	5.65%	5.73%	5.84%	5.69%	5.70%	5.76%	5.77%	5.78%	5.08%	5.71%	5.90%	6.08%	6.01%	6.13%	6.21%	6.06%	6.00%
28	OGE Energy	6.88%	7.35%	7.49%	7.47%	8.04%	8.71%	7.28%	6.96%	6.59%	6.70%	6.30%	5.84%	5.56%	5.70%	5.81%	6.24%	6.79%	6.89%	7.47%	7.61%
29	Otter Tail Corp.	6.91%	4.69%	5.95%	5.61%	6.54%	7.05%	7.19%	7.29%	7.27%	7.34%	7.70%	7.86%	8.07%	8.25%	7.52%	6.77%	6.33%	6.22%	6.67%	6.90%
30	Pinnacle West Capital	6.19%	5.79%	6.41%	6.40%	6.43%	6.47%	6.29%	6.16%	6.03%	5.93%	5.91%	5.89%	5.84%	7.38%	6.00%	6.20%	6.42%	6.15%	5.98%	5.87%
31	TXNM Energy	4.12%	5.73%	5.72%	5.52%	3.88%	5.23%	5.59%	5.12%	4.67%	4.18%	3.85%	3.37%	3.26%	2.89%	2.55%	2.84%	2.65%	3.20%	4.13%	3.89%
32	Portland General	4.94%	5.76%	5.73%	5.75%	5.61%	5.45%	5.24%	5.09%	4.94%	4.78%	4.64%	4.56%	4.70%	4.70%	4.78%	4.90%	4.93%	4.48%	4.42%	3.45%
33	PPL Corp.	8.33%	5.19%	5.03%	4.66%	8.89%	9.55%	9.74%	10.13%	10.18%	10.44%	10.19%	7.28%	7.43%	8.00%	7.48%	8.24%	9.47%	9.89%	8.20%	8.27%
34	Public Serv. Enterprise	6.99%	7.40%	7.34%	7.82%	7.12%	6.18%	6.28%	6.31%	6.27%	6.31%	6.03%	6.14%	6.28%	6.66%	6.75%	7.20%	7.66%	8.40%	8.15%	8.54%
35	SCANA Corp.	6.44%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6.67%	5.74%	5.72%	6.01%	6.14%	6.29%	6.48%	6.54%	6.80%	7.12%	6.94%	6.89%
36	Sempra Energy	5.33%	5.30%	5.41%	5.49%	5.66%	5.96%	6.39%	6.59%	6.53%	5.83%	5.89%	5.74%	5.60%	5.66%	4.68%	4.16%	4.27%	4.18%	3.89%	4.19%
37	Southern Co.	9.56%	9.57%	9.65%	9.67%	9.96%	9.59%	9.42%	9.55%	9.59%	8.89%	9.53%	9.48%	9.39%	9.22%	9.22%	9.38%	9.55%	9.74%	9.83%	10.07%
38	Vectren Corp.	7.71%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	7.67%	7.60%	7.57%	7.51%	7.55%	7.77%	7.74%	7.78%	7.84%	7.85%	7.86%	7.97%
39	WEC Energy Group	6.53%	8.54%	8.38%	7.92%	7.83%	7.62%	7.36%	7.12%	6.94%	7.00%	6.35%	7.96%	7.71%	6.65%	6.05%	4.92%	4.42%	3.78%	3.77%	3.72%
40	Westar Energy	5.71%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.82%	5.66%	5.57%	5.60%	5.77%	5.81%	5.84%	5.83%	5.75%	5.64%	5.56%	5.56%
41	Xcel Energy Inc.	6.20%	6.40%	6.55%	6.43%	6.38%	6.34%	6.42%	6.39%	6.38%	6.26%	6.13%	5.94%	5.78%	5.88%	5.91%	5.97%	6.09%	6.13%	6.19%	6.16%
42	Average	6.35%	6.52%	6.43%	6.46%	6.50%	6.65%	6.57%	6.69%	6.73%	6.46%	6.13%	6.09%	6.11%	6.29%	6.11%	6.07%	6.13%	6.37%	6.29%	6.10%
43	Median	6.08%	6.08%	6.10%	5.92%	6.34%	6.18%	6.29%	6.23%	6.25%	5.85%	5.82%	5.84%	5.84%	5.99%	6.08%	6.01%	5.99%	6.22%	6.22%	6.21%

Sources:

- ¹ Data for years 2019 and prior were retrieved from the Value Line Investment Survey Investment Analyzer Software, downloaded on June 18, 2021.
- Data for the years 2020 - 2023 was retrieved from Value Line Investment Surveys.
- ² The Value Line Investment Survey, January 17, February 7, and March 7, 2025.
- ^a Based on the projected 2023 Dividend Declared per share and Book Value per share, published in The Value Line Investment Survey, April 19, May 10, and June 7, 2024.

Spire Missouri, Inc.

Electric Utilities
(Valuation Metrics)

Line	Company	Dividends to Earnings Ratio ^a																				
		18-Year																				
		Average (1)	2024 ^{2b} (2)	2023 (3)	2022 (4)	2021 (5)	2020 (6)	2019 (7)	2018 (8)	2017 (9)	2016 (10)	2015 (11)	2014 (12)	2013 (13)	2012 (14)	2011 (15)	2010 (16)	2009 (17)	2008 (18)	2007 (19)	2006 (20)	
1	ALLETE	0.70	0.91	0.63	0.77	0.78	0.74	0.71	0.66	0.68	0.66	0.60	0.68	0.72	0.71	0.67	0.80	0.93	0.61	0.53	0.52	
2	Alliant Energy	0.62	0.71	0.65	0.63	0.61	0.62	0.61	0.61	0.63	0.72	0.65	0.59	0.57	0.59	0.62	0.57	0.79	0.55	0.47	0.56	
3	Ameren Corp.	0.66	0.58	0.58	0.57	0.57	0.57	0.57	0.56	0.64	0.64	0.70	0.67	0.76	0.66	0.63	0.56	0.55	0.88	0.85	0.95	
4	American Electric Power	0.61	0.64	0.64	0.62	0.60	0.64	0.66	0.65	0.66	0.54	0.60	0.61	0.61	0.63	0.59	0.66	0.55	0.55	0.55	0.52	
5	Avangrid, Inc.	0.98	N/A	0.84	0.76	0.89	0.94	0.78	0.91	1.03	0.87	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
6	Avista Corp.	0.69	0.79	0.82	0.83	0.80	0.85	0.52	0.72	0.73	0.64	0.70	0.69	0.66	0.88	0.64	0.61	0.51	0.51	0.83	0.39	
7	Black Hills	1.04	0.67	0.64	0.61	0.61	0.58	0.58	0.56	0.54	0.64	0.57	0.54	0.58	0.75	1.45	0.87	0.61	7.78	0.51	0.60	
8	CenterPoint Energy	0.71	0.51	0.56	0.45	0.70	0.70	0.58	1.51	0.86	1.03	0.92	0.67	0.67	0.60	0.62	0.73	0.75	0.56	0.58	0.45	
9	CMS Energy Corp.	0.58	0.62	0.65	0.65	0.67	0.62	0.64	0.62	0.61	0.63	0.61	0.62	0.61	0.63	0.58	0.50	0.54	0.29	0.31	N/A	
10	Consol. Edison	0.68	0.62	0.64	0.69	0.65	0.78	0.73	0.63	0.67	0.68	0.64	0.70	0.63	0.63	0.67	0.69	0.75	0.70	0.67	0.78	
11	Dominion Resources	0.89	0.97	1.34	0.65	0.79	1.90	1.68	1.03	0.86	0.81	0.81	0.79	0.73	0.77	0.71	0.63	0.66	0.52	0.69	0.58	
12	DTE Energy	0.66	0.61	0.57	0.64	0.95	0.58	0.61	0.58	0.59	0.63	0.64	0.53	0.69	0.62	0.63	0.58	0.65	0.78	0.80	0.85	
13	Duke Energy	0.80	0.70	0.73	0.76	0.79	0.97	0.74	0.88	0.83	0.91	0.79	0.76	0.78	0.82	0.72	0.72	0.83	0.89	0.72	N/A	
14	Edison Intl	0.48	0.64	0.63	1.78	1.35	1.50	0.62	-1.93	0.50	0.50	0.42	0.34	0.36	0.29	0.40	0.38	0.38	0.33	0.35	0.34	
15	El Paso Electric	0.50	N/A	N/A	N/A	N/A	N/A	N/A	0.88	0.54	0.51	0.57	0.49	0.48	0.43	0.27	N/A	N/A	N/A	N/A	N/A	
16	Entergy Corp.	0.56	0.94	0.39	0.76	0.56	0.54	0.58	0.61	0.67	0.50	0.57	0.58	0.67	0.55	0.44	0.49	0.48	0.48	0.46	0.40	
17	Eversource Energy	0.60	0.63	0.62	0.62	0.68	0.64	0.62	0.62	0.61	0.60	0.61	0.61	0.59	0.70	0.50	0.49	0.50	0.44	0.49	0.88	
18	Eergy, Inc.	0.69	0.68	0.78	0.71	0.57	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
19	Exelon Corp.	0.60	0.62	0.61	0.60	0.88	0.59	0.48	0.67	0.47	0.70	0.49	0.59	0.63	1.09	0.56	0.54	0.49	0.50	0.45	0.47	
20	FirstEnergy Corp.	0.78	0.64	0.63	0.65	0.58	0.84	0.83	1.37	0.53	0.69	0.72	1.69	0.56	1.03	1.17	0.68	0.66	0.50	0.49	0.48	
21	Fortis Inc.	0.72	0.73	0.74	0.78	0.80	0.76	0.69	0.69	0.62	0.82	0.68	0.94	0.77	0.73	0.67	0.69	0.69	0.66	0.64	0.49	
22	Great Plains Energy	-0.82	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-18.33	0.66	0.73	0.60	0.54	0.63	0.67	0.54	0.81	1.43	0.90	1.02	
23	Hawaiian Elec.	0.82	N/A	0.60	0.64	0.60	0.73	0.64	0.67	0.76	0.54	0.83	0.76	0.77	0.74	0.86	1.02	1.36	1.16	1.12	0.93	
24	IDACORP, Inc.	0.52	0.61	0.62	0.59	0.59	0.58	0.56	0.53	0.53	0.53	0.50	0.46	0.43	0.41	0.36	0.41	0.45	0.55	0.65	0.51	
25	MGE Energy	0.56	0.51	0.51	0.52	N/A	0.56	0.55	0.54	0.57	0.56	0.56	0.48	0.50	0.56	0.57	0.60	0.66	0.60	0.62	0.68	
26	NextEra Energy, Inc.	0.56	0.60	0.59	0.59	0.85	0.67	0.64	0.66	0.60	0.60	0.51	0.52	0.55	0.53	0.45	0.42	0.47	0.44	0.50	0.47	
27	NorthWestern Corp.	0.70	0.76	0.80	0.77	0.69	0.78	0.65	0.65	0.63	0.59	0.66	0.54	0.62	0.65	0.57	0.64	0.66	0.75	0.89	0.95	
28	OGE Energy	0.61	0.77	0.80	0.73	0.69	0.76	0.67	0.66	0.66	0.68	0.62	0.48	0.44	0.45	0.44	0.49	0.54	0.56	0.52	0.55	
29	Otter Tail Corp.	0.95	0.26	0.25	0.24	0.37	0.63	0.65	0.65	0.69	0.68	0.78	0.79	0.78	0.87	1.13	2.64	3.13	1.68	1.09	0.66	0.68
30	Pinnacle West Capital	0.70	0.70	0.79	0.80	0.61	0.66	0.64	0.63	0.61	0.65	0.62	0.65	0.61	0.76	0.70	0.68	0.93	0.99	0.71	0.64	
31	TXNM Energy	0.84	0.57	0.53	0.52	0.43	0.58	0.52	0.65	0.52	0.53	0.49	0.52	0.48	0.44	0.46	0.57	0.86	5.50	1.20	0.50	
32	Portland General	0.63	0.64	0.79	0.65	0.63	0.92	0.64	0.60	0.59	0.58	0.58	0.51	0.62	0.57	0.54	0.62	0.77	0.70	0.40	0.59	
33	PPL Corp.	0.77	0.61	0.59	0.62	3.13	0.81	0.70	0.64	0.75	0.54	0.63	0.63	0.62	0.55	0.54	0.61	1.16	0.55	0.46	0.48	
34	Public Serv. Enterprise	0.56	0.66	0.66	0.62	0.80	0.54	0.48	0.65	0.61	0.58	0.47	0.49	0.59	0.58	0.44	0.45	0.43	0.44	0.45	0.62	
35	SCANA Corp.	0.61	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.58	0.55	0.57	0.55	0.60	0.63	0.65	0.64	0.66	0.62	0.64	0.65	
36	Sempra Energy	0.54	0.52	0.52	0.50	1.10	0.64	0.65	0.65	0.71	0.71	0.54	0.57	0.60	0.55	0.43	0.39	0.33	0.31	0.29	0.28	
37	Southern Co.	0.75	0.71	0.76	0.75	0.77	0.78	0.78	0.79	0.72	0.79	0.76	0.75	0.75	0.73	0.73	0.76	0.75	0.74	0.70	0.73	
38	Vectren Corp.	0.75	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.66	0.64	0.64	0.72	0.86	0.72	0.80	0.84	0.75	0.80	0.69	0.85	
39	WEC Energy Group	0.57	0.68	0.67	0.65	0.66	0.67	0.66	0.66	0.66	0.67	0.74	0.60	0.58	0.51	0.48	0.42	0.42	0.36	0.35	0.35	
40	Westar Energy	0.68	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.70	0.63	0.69	0.60	0.60	0.61	0.72	0.69	0.94	0.89	0.59	0.52	
41	Xcel Energy Inc.	0.62	0.62	0.62	0.62	0.62	0.62	0.61	0.62	0.63	0.62	0.61	0.59	0.58	0.58	0.60	0.64	0.65	0.64	0.67	0.65	
42	Average	0.66	0.66	0.66	0.68	0.78	0.75	0.66	0.64	0.18	0.65	0.64	0.64	0.62	0.65	0.67	0.68	0.70	0.96	0.62	0.61	
43	Median	0.63	0.64	0.63	0.64	0.68	0.67	0.64	0.65	0.63	0.64	0.62	0.60	0.61	0.63	0.62	0.62	0.66	0.61	0.60	0.57	

Sources:

¹ Data for years 2019 and prior were retrieved from the Value Line Investment Survey Investment Analyzer Software, downloaded on June 18, 2021.

Data for the years 2020 - 2023 was retrieved from Value Line Investment Surveys.

² The Value Line Investment Survey, January 17, February 7, and March 7, 2025.

Note:

^b Based on the projected 2023 Dividends Declared per share and Earnings per share, published in The Value Line Investment Survey, April 19, May 10, and June 7, 2024.

Spire Missouri, Inc.

Electric Utilities
(Valuation Metrics)

Cash Flow to Capital Spending Ratio¹

Line	Company	18-Year																			
		Average (1)	2024 ^{2a} (2)	2023 (3)	2022 (4)	2021 (5)	2020 (6)	2019 (7)	2018 (8)	2017 (9)	2016 (10)	2015 (11)	2014 (12)	2013 (13)	2012 (14)	2011 (15)	2010 (16)	2009 (17)	2008 (18)	2007 (19)	2006 (20)
1	ALLETE	0.94	1.30	1.76	2.12	0.55	0.55	0.63	1.22	1.61	1.32	1.16	0.45	0.67	0.49	0.77	0.63	0.39	0.46	0.65	1.23
2	Alliant Energy	0.79	0.65	0.74	0.91	0.95	N/A	N/A	N/A	0.49	N/A	0.81	0.91	1.01	0.57	0.91	0.67	0.39	0.57	1.04	1.27
3	Ameren Corp.	0.86	0.83	0.78	0.71	0.62	0.62	0.79	0.80	0.75	0.75	0.75	0.75	0.89	1.07	1.31	1.36	0.81	0.66	0.97	1.21
4	American Electric Power	0.86	0.84	0.79	0.81	0.81	0.81	0.75	0.68	0.67	0.85	0.85	0.87	0.91	1.07	1.19	1.24	1.02	0.70	0.77	0.75
5	Avangrid, Inc.	0.71	N/A	0.66	0.79	0.56	0.56	0.62	0.85	0.57	0.86	0.89	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	Avista Corp.	0.89	0.84	0.88	0.73	0.88	0.88	0.92	0.78	0.77	0.84	0.76	0.80	0.86	0.80	0.90	0.99	1.15	0.97	0.73	1.36
7	Black Hills	0.68	0.71	0.95	0.86	0.61	0.61	0.53	0.87	1.17	0.71	0.64	0.70	0.74	0.71	0.40	0.41	0.61	0.35	0.76	0.55
8	CenterPoint Energy	0.96	0.66	0.53	0.52	0.73	0.73	0.83	0.98	1.22	1.12	0.92	1.20	1.18	1.37	1.12	0.88	0.99	1.16	0.98	1.08
9	CMS Energy Corp.	0.86	0.74	0.85	0.82	0.78	0.78	0.79	0.77	0.89	0.81	0.81	0.74	0.82	0.82	1.05	1.13	0.97	1.11	0.55	1.07
10	Consol. Edison	0.83	0.85	0.84	0.88	0.83	0.83	0.87	0.82	0.76	0.65	0.76	0.88	0.86	1.01	0.98	0.90	0.75	0.70	0.81	0.74
11	Dominion Resources	0.75	0.51	0.46	0.86	0.73	0.73	0.96	1.04	0.81	0.65	0.64	0.63	0.77	0.73	0.79	0.87	0.75	0.83	0.74	0.85
12	DTE Energy	0.97	0.87	0.85	0.86	0.74	0.74	0.83	0.84	0.94	0.93	0.84	1.02	0.96	0.93	1.09	1.51	1.50	0.98	1.07	1.03
13	Duke Energy	0.88	0.81	0.81	0.87	0.85	0.85	0.80	0.81	0.87	0.82	0.96	1.20	1.09	0.87	0.89	0.78	0.77	0.71	1.09	0.97
14	Edison Intl	0.75	0.82	0.83	0.62	0.55	0.55	0.68	0.34	0.94	0.91	0.80	0.83	0.80	0.76	0.61	0.60	0.79	0.93	0.88	0.93
15	EI Passy Electric	0.87	N/A	N/A	N/A	0.83	N/A	N/A	0.86	1.04	0.85	0.67	0.69	0.79	0.85	1.03	0.98	0.68	0.78	0.84	1.26
16	Entergy Corp.	0.95	0.72	1.03	0.62	0.74	0.74	0.79	0.73	0.76	1.08	1.05	1.19	1.03	0.88	1.15	1.24	1.02	0.93	1.14	1.13
17	Eversource Energy	0.82	0.63	0.54	0.89	0.80	0.80	0.75	0.83	0.79	0.87	0.91	0.90	1.13	0.86	0.80	1.05	0.96	0.77	0.68	0.67
18	Eergy, Inc.	0.90	0.88	0.90	0.78	1.03	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19	Exelon Corp.	1.18	0.80	0.82	0.84	1.09	1.09	1.20	1.05	1.06	0.76	0.82	0.93	1.07	0.98	1.19	1.66	1.66	1.61	1.84	1.86
20	FirstEnergy Corp.	0.99	0.81	0.82	0.98	0.83	0.83	0.80	0.76	1.03	0.94	0.93	0.54	0.91	0.85	1.05	1.32	1.22	0.95	1.56	1.75
21	Fortis Inc.	0.71	0.88	0.93	0.89	0.65	0.65	0.68	0.72	0.76	0.76	0.65	0.60	0.77	0.72	0.66	0.68	0.63	0.66	0.57	0.63
22	Great Plains Energy	0.79	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.78	1.17	0.90	0.79	0.91	0.86	1.03	0.86	0.50	0.35	0.69	0.64
23	Hawaiian Elec.	1.22	3.08	1.14	1.56	1.27	1.27	1.08	0.85	0.81	1.37	0.98	1.03	0.92	0.99	1.30	1.50	0.79	0.87	1.15	1.23
24	IDACORP, Inc.	1.06	0.54	0.75	1.00	1.33	1.33	1.46	1.42	1.33	1.16	1.15	1.21	1.34	1.24	0.86	0.78	0.96	0.82	0.64	0.89
25	MGE Energy	1.08	1.02	0.98	1.12	0.82	0.82	0.97	0.66	1.19	1.44	1.60	1.31	0.96	1.05	1.56	1.57	1.13	0.87	0.59	0.80
26	NextEra Energy, Inc.	0.60	0.52	0.50	0.55	0.58	0.58	0.67	0.56	0.53	0.63	0.71	0.77	0.68	0.39	0.58	0.69	0.60	0.63	0.56	0.73
27	NorthWestern Corp.	1.00	0.86	0.72	0.75	0.84	0.84	1.13	1.23	1.21	1.13	1.01	0.93	0.92	0.88	1.04	0.76	0.88	1.27	1.23	1.29
28	OGE Energy	0.92	1.02	1.03	0.87	1.24	1.24	1.27	1.30	0.81	1.10	1.18	1.19	0.69	0.63	0.51	0.69	0.61	0.60	0.79	0.84
29	Otter Tail Corp.	1.02	1.83	1.98	2.13	0.48	0.48	0.80	1.49	1.10	0.84	0.74	0.70	0.67	0.85	1.16	1.09	0.56	0.37	0.65	1.44
30	Pinnacle West Capital	0.93	0.77	0.73	0.89	0.91	0.91	1.03	1.06	0.76	0.81	0.92	0.97	0.87	0.96	0.91	0.97	1.06	0.86	0.99	1.28
31	TXNM Energy	0.69	0.53	0.55	0.63	0.72	0.72	0.78	0.82	0.84	0.57	0.57	0.63	0.80	0.87	0.77	0.82	0.70	0.44	0.43	0.89
32	Portland General	0.81	0.63	0.51	0.86	0.78	0.78	1.03	1.00	1.07	0.88	0.80	0.47	0.59	1.28	1.25	0.81	0.44	0.77	0.72	0.78
33	PPL Corp.	0.97	0.97	1.06	1.05	0.90	0.90	0.98	0.93	0.82	1.00	0.72	0.75	0.69	0.91	1.07	1.11	1.07	1.25	1.13	1.18
34	Public Serv. Enterprise	1.09	0.90	0.92	1.05	1.13	1.13	1.08	0.70	0.64	0.61	0.80	1.04	0.93	0.96	1.30	1.23	1.41	1.34	1.64	1.94
35	SCANA Corp.	0.86	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.86	0.65	0.83	0.90	0.83	0.77	0.88	0.86	0.76	0.76	0.92	1.26
36	Sempra Energy	0.79	0.63	0.61	0.92	0.77	0.77	0.88	0.80	0.67	0.56	0.81	0.74	0.84	0.73	0.72	0.90	1.02	0.87	0.90	0.93
37	Southern Co.	0.90	0.93	0.88	0.97	0.99	0.99	0.88	0.83	0.90	0.77	0.88	0.80	0.86	0.93	0.94	0.93	0.78	0.87	0.91	1.00
38	Vectren Corp.	1.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.82	0.87	0.95	0.98	1.05	1.13	1.20	1.31	0.83	0.82	0.98	1.00
39	WEC Energy Group	0.98	1.01	0.95	1.09	0.97	0.97	0.91	0.90	0.92	1.20	0.97	1.37	1.42	1.30	1.02	0.97	0.89	0.61	0.56	0.69
40	Westar Energy	0.72	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.91	0.63	0.86	0.70	0.72	0.67	0.71	0.88	0.68	0.36	0.48	1.00
41	Xcel Energy Inc.	0.75	0.65	0.75	0.93	0.66	0.66	0.78	0.77	0.84	0.79	0.63	0.68	0.60	0.76	0.83	0.76	0.89	0.75	0.71	0.90
42	Average	0.89	0.89	0.86	0.94	0.83	0.82	0.88	0.89	0.89	0.89	0.87	0.87	0.89	0.88	0.96	0.98	0.86	0.80	0.88	1.05
43	Median	0.83	0.82	0.83	0.87	0.81	0.79	0.83	0.83	0.84	0.85	0.83	0.83	0.86	0.87	0.98	0.90	0.81	0.78	0.81	1.00

Sources:

¹ Data for years 2019 and prior were retrieved from the Value Line Investment Survey Investment Analyzer Software, downloaded on June 18, 2021.

 Data for the years 2020 - 2023 was retrieved from Value Line Investment Surveys.

² The Value Line Investment Survey, January 17, February 7, and March 7, 2025.

Notes:

³ Based on the projected Cash Flow per share and Capital Spending per share published in The Value Line Investment Survey, April 19, May 10, and June 7, 2024.

Spire Missouri, Inc.

**Natural Gas Utilities
(Valuation Metrics)**

		Price to Earnings (P/E) Ratio ¹																			
		19-Year																			
Line	Company	Average	2024 ²	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
1	Atmos Energy	17.54	19.80	16.80	19.30	18.80	22.30	23.20	21.70	22.00	20.80	17.50	16.10	15.90	15.90	14.40	13.20	12.50	13.60	15.90	13.52
2	Chesapeake Utilities	19.59	23.30	21.60	25.80	25.60	21.60	24.70	22.90	27.80	22.30	19.10	17.70	15.60	14.80	14.20	12.20	14.20	14.20	16.70	17.85
3	New Jersey Resources	17.02	14.80	14.90	17.00	17.50	17.70	24.30	15.60	22.40	21.30	16.60	11.70	16.00	16.80	16.80	15.00	14.90	12.30	21.60	16.13
4	NiSource Inc.	22.03	21.30	16.90	19.60	18.00	18.70	21.30	19.30	64.40	23.20	37.30	22.70	18.90	17.90	19.40	15.30	14.30	12.10	18.80	19.16
5	Northwest Nat. Gas	20.26	14.10	15.40	19.60	19.50	25.00	30.90	26.60	NMF	26.90	23.70	20.70	19.40	21.10	19.00	17.00	15.20	16.10	16.70	15.85
6	ONE Gas Inc.	20.51	16.90	16.00	19.90	18.90	21.70	25.30	23.10	23.50	22.70	19.80	17.80	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7	Southwest Gas	17.95	19.70	23.00	NMF	14.30	16.80	21.30	20.60	22.20	21.60	19.40	17.90	15.80	15.00	15.70	14.00	12.20	20.30	17.30	15.94
8	Spire Inc.	18.32	18.20	14.50	17.50	13.60	51.10	22.80	16.70	19.80	19.60	16.50	19.80	21.30	14.50	13.00	13.70	13.40	14.30	14.20	13.60
9	UGI Corp.	15.05	10.50	8.40	14.10	13.90	13.80	23.40	17.80	20.80	19.30	17.70	15.80	15.40	16.40	15.00	10.90	10.30	13.30	15.10	13.97
10	Average	18.52	17.62	16.39	19.10	17.79	23.19	24.13	20.48	27.86	21.97	20.84	17.80	17.29	16.55	15.94	13.91	13.38	14.78	17.04	15.75
11	Median	17.80	18.20	16.00	19.45	18.00	21.60	23.40	20.60	22.30	21.60	19.10	17.80	15.95	16.15	15.35	13.85	13.80	13.90	16.70	15.89

		Market Price to Cash Flow (MP/CF) Ratio ¹																			
		19-Year																			
Line	Company	Average	2024 ²	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
12	Atmos Energy	9.46	11.93	11.27	11.87	10.99	13.11	13.35	12.02	11.99	11.36	9.30	8.79	7.72	7.02	6.87	6.15	5.76	6.48	7.44	6.36
13	Chesapeake Utilities	10.91	14.53	15.77	14.21	14.20	12.31	14.17	12.24	13.78	12.06	10.16	9.25	8.12	7.46	7.35	6.36	9.48	7.88	8.58	9.40
14	New Jersey Resources	11.83	9.95	11.22	11.55	11.56	11.10	15.98	11.44	14.45	13.94	11.71	8.95	11.29	12.29	12.71	11.32	11.34	9.15	13.76	11.01
15	NiSource Inc.	7.86	8.13	7.13	8.13	7.89	7.83	8.81	8.91	12.11	8.56	10.38	10.56	8.71	7.81	6.81	5.09	4.06	4.87	6.69	6.87
16	Northwest Nat. Gas	11.91	7.26	7.56	8.76	8.57	10.10	13.13	11.75	59.72	11.57	9.46	8.84	8.61	9.48	9.08	8.94	8.26	8.75	8.54	7.83
17	ONE Gas Inc.	9.98	7.01	7.73	9.91	9.32	10.85	12.75	11.85	11.89	11.10	9.19	8.16	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
18	Southwest Gas	7.27	7.88	7.35	19.83	6.87	7.05	8.92	9.32	9.10	7.41	6.56	6.35	5.94	5.55	5.60	4.91	3.84	4.89	5.42	5.28
19	Spire Inc.	9.47	7.29	7.53	8.34	7.55	14.01	11.27	9.60	10.39	10.32	8.47	12.03	13.76	8.80	8.08	8.12	8.58	8.95	8.46	8.46
20	UGI Corp.	7.70	4.67	5.84	7.20	9.56	7.39	12.95	9.01	10.09	9.02	8.47	7.49	6.55	6.30	7.51	6.02	5.74	7.11	7.92	7.48
21	Average	9.50	8.74	9.04	11.09	9.61	10.42	12.37	10.68	17.06	10.59	9.30	8.94	8.84	8.09	8.00	7.11	7.13	7.26	8.35	7.84
22	Median	8.37	7.88	7.56	9.91	9.32	10.85	12.95	11.44	11.99	11.10	9.30	8.84	8.37	7.64	7.43	6.26	7.01	7.50	8.19	7.65

		Market Price to Book Value (MP/BV) Ratio ¹																			
		19-Year																			
Line	Company	Average	2024 ²	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
23	Atmos Energy	1.59	1.68	1.55	1.65	1.59	1.95	2.10	2.03	2.16	2.11	1.72	1.55	1.39	1.28	1.30	1.18	1.05	1.20	1.40	1.34
24	Chesapeake Utilities	2.06	1.94	1.93	2.69	2.77	2.27	2.69	2.50	2.51	2.28	2.19	2.12	1.83	1.66	1.61	1.40	1.37	1.64	1.84	1.85
25	New Jersey Resources	2.26	2.06	2.32	2.35	2.26	1.90	2.75	2.63	2.70	2.52	2.28	2.13	2.05	2.33	2.31	2.09	2.16	1.92	2.17	2.01
26	NiSource Inc.	1.54	1.42	1.14	2.15	1.86	1.95	2.09	1.92	1.96	1.84	1.95	1.94	1.58	1.37	1.15	0.92	0.69	0.94	1.16	1.19
27	Northwest Nat. Gas	1.78	1.08	1.29	1.51	1.45	1.98	2.38	2.35	2.41	1.92	1.63	1.59	1.56	1.72	1.70	1.78	1.73	1.96	2.05	1.69
28	ONE Gas Inc.	1.63	1.32	1.43	1.73	1.57	1.90	2.20	1.93	1.89	1.67	1.26	1.07	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
29	Southwest Gas	1.53	1.33	1.28	1.62	1.32	1.49	1.84	1.79	2.13	1.96	1.68	1.68	1.61	1.51	1.43	1.24	0.97	1.20	1.46	1.46
30	Spire Inc.	1.53	1.25	1.29	1.43	1.47	1.67	1.78	1.63	1.65	1.64	1.44	1.33	1.34	1.51	1.46	1.39	1.68	1.71	1.66	1.71
31	UGI Corp.	1.94	1.30	1.59	1.39	1.64	1.87	2.92	2.30	2.62	2.41	2.29	1.97	1.69	1.45	1.75	1.55	1.66	2.01	2.16	2.21
32	Average	1.76	1.49	1.53	1.83	1.77	1.89	2.30	2.12	2.23	2.04	1.83	1.71	1.63	1.60	1.59	1.44	1.41	1.57	1.74	1.68
33	Median	1.67	1.33	1.43	1.65	1.59	1.90	2.20	2.03	2.16	1.96	1.72	1.68	1.59	1.51	1.54	1.40	1.51	1.67	1.75	1.70

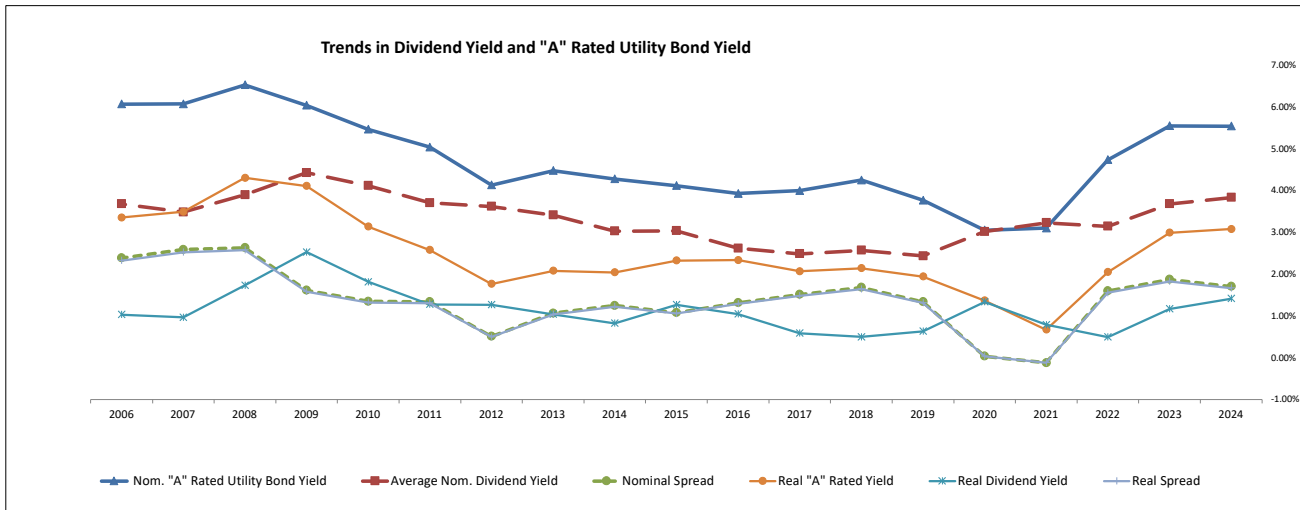
Sources:
¹ The current year P/E ratio is based on the forward P/E (price over expected earnings per share). All historical year P/E ratios are based on annual average share price over achieved earnings per share.
² Data for years 2019 and prior were retrieved from the Value Line Investment Survey Investment Analyzer Software, downloaded on June 18, 2021.
³ Data for the years 2020 - 2023 was retrieved from Value Line Investment Surveys.
⁴ The Value Line Investment Survey, February 21, 2025.

Notes:
^a Based on the average of the high and low price for the year and the projected Cash Flow per share, published in The Value Line Investment Survey.
^b Based on the average of the high and low price for the year and the projected Book Value per share, published in The Value Line Investment Survey.

Spire Missouri, Inc.

Natural Gas Utilities
(Valuation Metrics)

Line	Company	Dividend Yield ¹																			
		Average (1)	2024 ^{2a} (2)	2023 (3)	2022 (4)	2021 (5)	2020 (6)	2019 (7)	2018 (8)	2017 (9)	2016 (10)	2015 (11)	2014 (12)	2013 (13)	2012 (14)	2011 (15)	2010 (16)	2009 (17)	2008 (18)	2007 (19)	2006 (20)
1	Alamos Energy	3.30%	2.45%	2.62%	2.46%	2.63%	2.19%	2.08%	2.23%	2.27%	2.39%	2.88%	3.11%	3.53%	4.13%	4.19%	4.70%	5.34%	4.78%	4.16%	4.66%
2	Chesapeake Utilities	2.62%	2.12%	2.08%	1.61%	1.50%	1.86%	1.68%	1.76%	1.69%	1.91%	2.18%	2.44%	2.87%	3.25%	3.36%	3.91%	4.09%	4.10%	3.62%	3.76%
3	New Jersey Resources	3.25%	3.75%	3.29%	3.25%	3.50%	3.47%	2.50%	2.61%	2.69%	2.86%	3.14%	3.50%	3.71%	3.38%	3.33%	3.69%	3.46%	3.35%	3.02%	3.19%
4	NiSource Inc.	3.92%	3.34%	3.85%	3.33%	3.60%	3.41%	2.86%	3.10%	2.79%	2.76%	3.53%	2.69%	3.30%	3.84%	4.53%	5.66%	7.64%	5.69%	4.29%	4.21%
5	Northwest Nat. Gas	3.69%	4.93%	4.40%	3.86%	3.90%	3.33%	2.81%	3.05%	3.02%	3.28%	4.01%	4.14%	4.22%	3.83%	3.85%	3.63%	3.73%	3.27%	3.12%	3.73%
6	ONE Gas Inc.	2.82%	3.87%	3.72%	3.08%	3.21%	2.70%	2.25%	2.46%	2.37%	2.32%	2.71%	2.28%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7	Southwest Gas	3.03%	3.60%	4.07%	3.20%	3.65%	3.28%	2.60%	2.74%	2.46%	2.62%	2.87%	2.72%	2.69%	2.75%	2.78%	3.15%	4.01%	3.19%	2.56%	2.60%
8	Spire Inc.	3.86%	4.65%	4.44%	3.89%	3.79%	3.38%	2.95%	3.10%	3.09%	3.08%	3.53%	3.78%	3.96%	4.11%	4.31%	4.70%	3.91%	3.94%	4.43%	4.34%
9	UGI Corp.	3.15%	5.82%	4.64%	3.61%	3.25%	3.56%	2.16%	2.09%	2.01%	2.35%	2.50%	2.61%	3.01%	3.68%	3.30%	3.48%	3.23%	2.85%	2.69%	2.96%
10	Average	3.34%	3.84%	3.68%	3.14%	3.23%	3.02%	2.43%	2.57%	2.49%	2.62%	3.04%	3.03%	3.41%	3.62%	3.71%	4.12%	4.43%	3.90%	3.48%	3.68%
11	Median	3.42%	3.75%	3.85%	3.25%	3.50%	3.33%	2.50%	2.61%	2.46%	2.62%	2.88%	2.72%	3.42%	3.75%	3.60%	3.80%	3.96%	3.65%	3.37%	3.75%
12	20-Yr Treasury Yields ³	3.32%	4.50%	4.25%	3.30%	1.98%	1.35%	2.40%	3.02%	2.65%	2.23%	2.55%	3.07%	3.12%	2.54%	3.62%	4.03%	4.11%	4.36%	4.91%	4.99%
13	20-Yr TIPS ³	1.12%	2.06%	1.73%	0.64%	-0.43%	-0.30%	0.60%	0.94%	0.75%	0.66%	0.78%	0.87%	0.75%	0.21%	1.19%	1.73%	2.21%	2.19%	2.36%	2.31%
14	Implied Inflation ³	2.17%	2.39%	2.48%	2.64%	2.42%	1.66%	1.79%	2.06%	1.89%	1.56%	1.75%	2.19%	2.35%	2.33%	2.40%	2.26%	1.85%	2.13%	2.49%	2.62%
15	Real Dividend Yield ⁴	1.14%	1.41%	1.17%	0.49%	0.79%	1.33%	0.63%	0.50%	0.58%	1.05%	1.27%	0.82%	1.04%	1.27%	1.27%	1.82%	2.53%	1.73%	0.97%	1.03%
Utility																					
16	Nominal "A" Rated Yield ⁵	4.74%	5.54%	5.55%	4.74%	3.10%	3.05%	3.77%	4.25%	4.00%	3.93%	4.12%	4.28%	4.48%	4.13%	5.04%	5.46%	6.04%	6.53%	6.07%	6.07%
17	Real "A" Rated Yield	2.52%	3.08%	2.99%	2.05%	0.67%	1.37%	1.94%	2.14%	2.07%	2.34%	2.33%	2.04%	2.08%	1.76%	2.58%	3.13%	4.11%	4.31%	3.49%	3.36%
Spreads (Utility Bond - Stock)																					
18	Nominal ⁶	1.41%	1.70%	1.87%	1.60%	-0.12%	0.03%	1.33%	1.68%	1.51%	1.31%	1.08%	1.25%	1.06%	0.51%	1.33%	1.35%	1.61%	2.63%	2.59%	2.39%
19	Real ⁶	1.38%	1.67%	1.82%	1.56%	-0.12%	0.03%	1.31%	1.64%	1.48%	1.29%	1.06%	1.22%	1.04%	0.50%	1.30%	1.32%	1.58%	2.58%	2.53%	2.33%
Spreads (Treasury Bond - Stock)																					
20	Nominal ⁷	-0.02%	0.66%	0.57%	0.16%	-1.25%	-1.67%	-0.03%	0.45%	0.17%	-0.39%	-0.49%	0.05%	-0.29%	-1.08%	-0.09%	-0.09%	-0.32%	0.46%	1.42%	1.31%
21	Real ⁸	-0.02%	0.65%	0.56%	0.15%	-1.22%	-1.64%	-0.03%	0.44%	0.16%	-0.39%	-0.48%	0.04%	-0.29%	-1.05%	-0.08%	-0.08%	-0.31%	0.46%	1.39%	1.28%



Sources:
¹ Data for years 2019 and prior were retrieved from the Value Line Investment Survey Investment Analyzer Software, downloaded on June 18, 2021.
² Data for the years 2020 - 2023 was retrieved from Value Line Investment Surveys.
³ The Value Line Investment Survey, February 21, 2025.
⁴ St. Louis Federal Reserve, Economic Research, <http://research.stlouisfed.org>.
⁵ Mergent Bond Record, through December 31, 2024.
Notes:
^a Based on the average of the high and low price for the year and the projected Dividends Declared per share published in the Value Line Investment Survey.
^b Line 16 = (1 + Line 14) / (1 + Line 15) - 1.
^c Line 17 = (1 + Line 12) / (1 + Line 16) - 1.
^d The spread being measured here is the nominal A-rated utility bond yield over the average nominal utility dividend yield; (Line 18 - Line 12).
^e The spread being measured here is the real A-rated utility bond yield over the average real utility dividend yield; (Line 19 - Line 17).
^f The spread being measured here is the nominal 20-Year Treasury yield over the average nominal utility dividend yield; (Line 14 - Line 12).
^g The spread being measured here is the real 20-Year TIPS yield over the average real utility dividend yield; (Line 15 - Line 17).

Spire Missouri, Inc.

Natural Gas Utilities
(Valuation Metrics)

Line	Company	Dividend per Share ¹																					
		19-Year																		2018	2017		
		Average (1)	2024 ² (2)	2023 (3)	2022 (4)	2021 (5)	2020 (6)	2019 (7)	2018 (8)	2017 (9)	2016 (10)	2015 (11)	2014 (12)	2013 (13)	2012 (14)	2011 (15)	2010 (16)	2009 (17)	2008 (18)	2007 (19)	2006 (20)	CAGR (21)	CAGR (22)
1	Atmos Energy	1.84	3.22	2.96	2.72	2.50	2.30	2.10	1.94	1.80	1.68	1.56	1.48	1.40	1.38	1.36	1.34	1.32	1.30	1.28	1.26	2.08%	2.15%
2	Chesapeake Utilities	1.30	2.46	2.25	2.03	1.84	1.69	1.55	1.39	1.26	1.19	1.12	1.07	1.01	0.96	0.91	0.87	0.83	0.81	0.78	0.77	2.89%	3.02%
3	New Jersey Resources	0.98	1.71	1.56	1.45	1.36	1.27	1.19	1.11	1.04	0.98	0.93	0.86	0.81	0.77	0.72	0.68	0.62	0.56	0.51	0.48	3.97%	4.59%
4	NiSource Inc.	0.89	1.06	1.00	0.94	0.88	0.84	0.80	0.78	0.70	0.64	0.83	1.02	0.98	0.94	0.92	0.92	0.92	0.92	0.92	0.92	-0.82%	-1.69%
5	Northwest Nat. Gas	1.78	1.95	1.94	1.93	1.92	1.91	1.90	1.89	1.88	1.87	1.86	1.85	1.83	1.79	1.75	1.68	1.60	1.52	1.44	1.39	1.36%	1.68%
6	ONE Gas Inc.	1.92	2.64	2.60	2.48	2.32	2.16	2.00	1.84	1.68	1.40	1.20	0.84	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.58%	4.30%
7	Southwest Gas	1.65	2.48	2.48	2.48	2.38	2.28	2.18	2.08	1.98	1.80	1.62	1.46	1.32	1.18	1.06	1.00	0.95	0.90	0.86	0.82	4.48%	5.35%
8	Spire Inc.	2.02	3.02	2.88	2.74	2.60	2.49	2.37	2.25	2.10	1.96	1.84	1.76	1.70	1.66	1.61	1.57	1.53	1.49	1.45	1.40	2.20%	2.34%
9	UGI Corp.	0.92	1.52	1.47	1.41	1.35	1.31	1.15	1.02	0.96	0.93	0.89	0.79	0.74	0.71	0.68	0.60	0.52	0.50	0.48	0.46	3.80%	4.41%
10	Average	1.44	2.23	2.13	2.02	1.91	1.81	1.69	1.59	1.49	1.38	1.32	1.24	1.22	1.17	1.13	1.08	1.04	1.00	0.97	0.94	2.62%	2.91%
11	Industry Average Growth	4.94%	4.81%	5.28%	6.01%	5.54%	6.63%	6.56%	6.73%	7.63%	5.06%	6.54%	0.96%	4.33%	4.18%	4.04%	4.39%	3.76%	3.55%	3.02%			

Sources:

¹ Data for years 2019 and prior were retrieved from the Value Line Investment Survey Investment Analyzer Software, downloaded on June 18, 2021.

Data for the years 2020 - 2023 was retrieved from Value Line Investment Surveys.

² The Value Line Investment Survey, February 21, 2025.

Spire Missouri, Inc.

Natural Gas Utilities
(Valuation Metrics)

		Earnings per Share ¹																			
		19-Year																			
Line	Company	Average (1)	2024 ² (2)	2023 ² (3)	2022 (4)	2021 (5)	2020 (6)	2019 (7)	2018 (8)	2017 (9)	2016 (10)	2015 (11)	2014 (12)	2013 (13)	2012 (14)	2011 (15)	2010 (16)	2009 (17)	2008 (18)	2007 (19)	2006 (20)
1	Atmos Energy	3.51	6.83	6.10	5.60	5.12	4.72	4.35	4.00	3.60	3.38	3.09	2.96	2.50	2.10	2.26	2.16	1.97	2.00	1.94	2.00
2	Chesapeake Utilities	2.88	5.05	4.73	4.97	4.70	4.21	3.72	3.45	2.68	2.86	2.68	2.47	2.26	1.99	1.91	1.82	1.43	1.39	1.29	1.15
3	New Jersey Resources	1.78	2.95	2.70	2.50	2.16	2.07	1.96	2.72	1.73	1.61	1.78	2.08	1.37	1.36	1.29	1.23	1.20	1.35	0.78	0.93
4	NiSource Inc.	1.23	1.75	1.60	1.47	1.35	1.32	1.31	1.30	0.39	1.00	0.63	1.67	1.57	1.37	1.05	1.06	0.84	1.34	1.14	1.14
5	Northwest Nat. Gas	2.17	2.30	2.59	2.54	2.50	2.30	2.19	2.33	-1.94	2.12	1.96	2.16	2.24	2.22	2.39	2.73	2.83	2.57	2.76	2.35
6	ONE Gas Inc.	3.30	3.85	4.14	4.08	3.85	3.68	3.51	3.25	3.02	2.65	2.24	2.07	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7	Southwest Gas	2.86	2.80	2.13	3.10	3.80	4.14	3.94	3.68	3.62	3.18	2.92	3.01	3.11	2.86	2.43	2.27	1.94	1.39	1.95	1.98
8	Spire Inc.	3.09	4.19	3.85	3.95	4.96	1.44	3.52	4.33	3.43	3.24	3.16	2.35	2.02	2.79	2.86	2.43	2.92	2.64	2.31	2.37
9	UGI Corp.	2.03	3.06	2.84	2.90	2.96	2.67	2.28	2.74	2.29	2.05	2.01	1.92	1.59	1.17	1.37	1.59	1.57	1.33	1.18	1.10
10	Average	2.47	3.64	3.41	3.46	3.49	2.95	2.98	3.09	2.09	2.45	2.27	2.30	2.08	1.98	1.95	1.91	1.84	1.75	1.67	1.63
11	Industry Average Growth	5.20%	6.84%	-1.38%	-0.92%	18.27%	-0.86%	-3.67%	47.72%	-14.80%	7.91%	-1.06%	10.40%	5.02%	1.90%	1.83%	3.95%	4.98%	4.94%	2.53%	

Sources:

¹ Data for years 2019 and prior were retrieved from the Value Line Investment Survey Investment Analyzer Software, downloaded on June 18, 2021.

Data for the years 2020 - 2023 was retrieved from Value Line Investment Surveys.

² The Value Line Investment Survey, February 21, 2025.

Spire Missouri, Inc.

Natural Gas Utilities (Valuation Metrics)

<u>Line</u>	<u>Company</u>	<u>Cash Flow / Capital Spending¹</u>							<u>3 - 5 yr²</u>
		<u>2019</u> (1)	<u>2020</u> (2)	<u>2021</u> (3)	<u>2022</u> (4)	<u>2023</u> (5)	<u>2024</u> (6)	<u>2025²</u> (7)	<u>Projection</u> (8)
1	Atmos Energy	0.53x	0.53x	0.53x	0.54x	0.54x	0.55x	0.51x	0.64x
2	Chesapeake Utilities	0.66x	0.64x	0.82x	1.23x	0.84x	0.61x	0.60x	0.68x
3	New Jersey Resources	1.41x	0.65x	0.72x	0.59x	0.68x	1.03x	0.89x	0.93x
4	NiSource Inc.	0.66x	0.65x	0.69x	0.55x	0.43x	0.54x	0.73x	0.76x
5	Northwest Nat. Gas	0.77x	0.75x	0.61x	0.60x	0.68x	0.63x	0.68x	0.65x
6	ONE Gas Inc.	0.78x	0.88x	0.86x	0.74x	0.83x	0.81x	0.89x	1.22x
7	Southwest Gas	0.62x	0.53x	0.61x	0.31x	0.84x	0.76x	0.79x	0.82x
8	Spire Inc.	0.65x	0.65x	0.70x	0.80x	0.71x	0.64x	0.68x	0.85x
9	UGI Corp.	1.33x	1.54x	1.66x	1.42x	1.33x	1.24x	1.47x	1.49x
10	Average	0.82x	0.76x	0.80x	0.75x	0.76x	0.76x	0.81x	0.89x
11	Median	0.66x	0.65x	0.70x	0.60x	0.71x	0.64x	0.73x	0.82x

Sources:

¹ The Value Line Investment Survey, various report dates.

² The Value Line Investment Survey, February 21, 2025.

Notes:

Based on the projected Cash Flow per share and Capital Spending per share.

Spire Missouri, Inc.

Natural Gas Utilities
(Valuation Metrics)

		Percent Dividends to Book Value ¹																			
Line	Company	19-Year																			
		Average (1)	2024 ^{2a} (2)	2023 (3)	2022 (4)	2021 (5)	2020 (6)	2019 (7)	2018 (8)	2017 (9)	2016 (10)	2015 (11)	2014 (12)	2013 (13)	2012 (14)	2011 (15)	2010 (16)	2009 (17)	2008 (18)	2007 (19)	2006 (20)
1	Atmos Energy	4.94%	4.11%	4.04%	4.07%	4.19%	4.26%	4.36%	4.53%	4.90%	5.04%	4.96%	4.81%	4.92%	5.28%	5.44%	5.55%	5.61%	5.75%	5.82%	6.25%
2	Chesapeake Utilities	5.04%	4.11%	4.01%	4.32%	4.15%	4.23%	4.53%	4.39%	4.23%	4.35%	4.78%	5.18%	5.25%	5.39%	5.42%	5.49%	5.60%	6.71%	6.66%	6.95%
3	New Jersey Resources	7.27%	7.73%	7.65%	7.63%	7.92%	6.60%	6.85%	6.87%	7.26%	7.21%	7.16%	7.45%	7.60%	7.86%	7.69%	7.72%	7.48%	6.42%	6.54%	6.40%
4	NISource Inc.	5.56%	4.74%	4.40%	7.15%	6.69%	6.64%	5.99%	5.96%	5.46%	5.08%	6.89%	5.22%	5.22%	5.19%	5.25%	5.19%	5.25%	5.34%	4.97%	5.02%
5	Northwest Nat. Gas	6.39%	5.34%	5.69%	5.83%	5.66%	6.64%	6.09%	7.16%	7.27%	6.30%	6.53%	6.58%	6.59%	6.57%	6.55%	6.44%	6.43%	6.41%	6.39%	6.32%
6	ONE Gas Inc.	4.53%	5.10%	5.32%	5.31%	5.04%	5.14%	4.96%	4.73%	4.48%	3.88%	3.41%	2.44%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7	Southwest Gas	4.52%	4.80%	5.20%	5.17%	4.80%	4.87%	4.79%	4.90%	5.25%	5.14%	4.82%	4.57%	4.33%	4.16%	3.98%	3.90%	3.89%	3.83%	3.74%	3.80%
8	Spire Inc.	5.86%	5.83%	5.73%	5.58%	5.56%	5.63%	5.25%	5.06%	5.06%	5.07%	5.04%	5.31%	6.22%	6.30%	6.53%	6.56%	6.74%	7.33%	7.43%	
9	UGI Corp.	5.78%	7.56%	7.35%	5.02%	5.34%	6.65%	6.30%	4.82%	5.28%	5.65%	5.72%	5.14%	5.07%	5.35%	5.77%	5.41%	5.35%	5.72%	5.82%	6.54%
10	Average	5.60%	5.48%	5.49%	5.57%	5.48%	5.62%	5.52%	5.38%	5.47%	5.30%	5.48%	5.16%	5.54%	5.76%	5.79%	5.78%	5.77%	5.86%	5.91%	6.09%
11	Median	5.32%	5.10%	5.32%	5.31%	5.34%	5.63%	5.25%	4.90%	5.25%	5.08%	5.07%	5.14%	5.24%	5.37%	5.61%	5.52%	5.60%	6.08%	6.11%	6.36%

		Dividends to Earnings Ratio ¹																			
Line	Company	19-Year																			
		Average (1)	2024 ^{2a} (2)	2023 (3)	2022 (4)	2021 (5)	2020 (6)	2019 (7)	2018 (8)	2017 (9)	2016 (10)	2015 (11)	2014 (12)	2013 (13)	2012 (14)	2011 (15)	2010 (16)	2009 (17)	2008 (18)	2007 (19)	2006 (20)
12	Atmos Energy	0.55	0.47	0.49	0.49	0.49	0.49	0.48	0.49	0.50	0.50	0.50	0.50	0.56	0.60	0.62	0.67	0.65	0.66	0.63	
13	Chesapeake Utilities	0.48	0.49	0.48	0.41	0.39	0.40	0.42	0.40	0.47	0.42	0.42	0.43	0.45	0.48	0.48	0.48	0.58	0.58	0.61	0.67
14	New Jersey Resources	0.55	0.58	0.58	0.58	0.63	0.61	0.61	0.41	0.60	0.61	0.52	0.41	0.59	0.57	0.56	0.55	0.52	0.41	0.65	0.51
15	NISource Inc.	0.80	0.61	0.63	0.64	0.65	0.64	0.61	0.60	1.79	0.64	1.32	0.61	0.62	0.69	0.88	0.87	1.10	0.69	0.81	0.81
16	Northwest Nat. Gas	0.66	0.85	0.75	0.76	0.77	0.83	0.87	0.81	0.97	0.88	0.95	0.86	0.82	0.81	0.73	0.62	0.57	0.59	0.52	0.59
17	ONE Gas Inc.	0.57	0.69	0.63	0.61	0.60	0.59	0.57	0.57	0.56	0.53	0.54	0.41	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
18	Southwest Gas	0.58	0.89	1.16	0.80	0.63	0.55	0.55	0.57	0.55	0.57	0.55	0.49	0.42	0.41	0.44	0.44	0.49	0.65	0.44	0.41
19	Spire Inc.	0.69	0.72	0.75	0.69	0.52	1.73	0.67	0.52	0.61	0.60	0.58	0.75	0.84	0.59	0.56	0.65	0.52	0.56	0.63	0.59
20	UGI Corp.	0.45	0.50	0.52	0.49	0.46	0.49	0.50	0.37	0.42	0.45	0.44	0.41	0.46	0.60	0.50	0.38	0.33	0.38	0.41	0.41
21	Average	0.59	0.64	0.66	0.61	0.57	0.70	0.59	0.53	0.50	0.58	0.65	0.54	0.60	0.60	0.59	0.57	0.60	0.56	0.59	0.58
22	Median	0.58	0.61	0.63	0.61	0.60	0.59	0.57	0.52	0.55	0.57	0.54	0.49	0.58	0.60	0.56	0.58	0.54	0.59	0.62	0.59

		Cash Flow to Capital Spending Ratio ¹																			
Line	Company	19-Year																			
		Average (1)	2024 ^{2a} (2)	2023 (3)	2022 (4)	2021 (5)	2020 (6)	2019 (7)	2018 (8)	2017 (9)	2016 (10)	2015 (11)	2014 (12)	2013 (13)	2012 (14)	2011 (15)	2010 (16)	2009 (17)	2008 (18)	2007 (19)	2006 (20)
23	Atmos Energy	0.64	0.58	0.53	0.54	0.58	0.52	0.53	0.55	0.62	0.59	0.60	0.65	0.55	0.59	0.68	0.77	0.78	0.81	0.94	0.82
24	Chesapeake Utilities	0.76	0.61	0.81	1.23	0.81	0.78	0.62	0.39	0.50	0.50	0.53	0.71	0.65	0.79	1.12	1.10	1.14	0.83	0.82	0.45
25	New Jersey Resources	1.18	0.87	0.82	0.59	0.62	0.71	0.51	0.85	0.70	0.59	0.67	1.79	1.46	1.48	1.51	1.55	1.75	2.11	1.67	2.14
26	NISource Inc.	0.74	0.74	0.61	0.55	0.68	0.66	0.61	0.58	0.41	0.59	0.53	0.56	0.57	0.65	0.75	1.11	1.06	0.94	1.11	1.37
27	Northwest Nat. Gas	0.88	0.56	0.77	0.60	0.68	0.66	0.69	0.71	0.14	1.01	1.12	1.15	0.98	1.01	1.33	0.55	1.02	1.35	1.21	1.34
28	ONE Gas Inc.	0.83	0.81	0.77	0.74	0.86	0.83	0.89	0.84	0.87	0.92	0.86	0.79	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
29	Southwest Gas	0.81	0.74	0.68	0.31	0.86	0.69	0.53	0.56	0.68	0.83	0.84	0.99	1.05	0.90	0.82	1.37	1.28	0.85	0.78	0.72
30	Spire Inc.	1.01	0.60	0.69	0.80	0.75	0.42	0.44	0.77	0.72	0.86	0.92	0.98	0.78	0.95	1.53	1.61	1.93	1.64	1.42	1.28
31	UGI Corp.	1.45	1.52	1.18	1.42	1.32	1.59	1.22	1.64	1.29	1.35	1.48	1.53	1.32	1.52	1.28	1.36	1.52	1.72	1.62	1.69
32	Average	0.94	0.78	0.75	0.75	0.80	0.76	0.67	0.77	0.66	0.82	0.84	1.02	0.92	0.98	1.13	1.18	1.31	1.28	1.20	1.23
33	Median	0.84	0.74	0.69	0.60	0.75	0.69	0.61	0.71	0.68	0.83	0.84	0.98	0.88	0.93	1.20	1.23	1.21	1.15	1.16	1.31

Sources:
¹ Data for years 2019 and prior were retrieved from the Value Line Investment Survey Investment Analyzer Software, downloaded on June 16, 2021.
Data for the years 2020 - 2023 was retrieved from Value Line Investment Surveys.
² The Value Line Investment Survey, February 21, 2025.
Notes:
^a Based on the projected Dividends Declared per share and Book Value per share, published in The Value Line Investment Survey.
^b Based on the projected Dividends Declared per share and Earnings per share, published in The Value Line Investment Survey.
^c Based on the projected Cash Flow per share and Capital Spending per share, published in The Value Line Investment Survey.

Spire Missouri, Inc.

Proxy Group

<u>Line</u>	<u>Company</u>	<u>Credit Ratings¹</u>		<u>Common Equity Ratios</u>	
		<u>S&P</u> <u>(1)</u>	<u>Moody's</u> <u>(2)</u>	<u>MI¹</u> <u>(3)</u>	<u>Value Line²</u> <u>(4)</u>
1	Atmos Energy Corporation	A-	A1	59.9%	62.1%
2	New Jersey Resources Corporation	N/A	A1	38.4%	41.8%
3	Northwest Natural Holding Company	A-	N/A	41.4%	47.4%
4	ONE Gas, Inc.	A-	A3	48.1%	56.2%
5	Southwest Gas Holdings, Inc.	BBB-	Baa2	39.5%	41.8%
6	UGI Corporation	N/A	A3	36.4%	38.1%
7	American States Water Company	A	N/A	50.0%	57.4%
8	American Water Works Company, Inc.	A	Baa1	44.4%	45.5%
9	California Water Service Group	A+	N/A	50.5%	57.5%
10	Essential Utilities, Inc.	A-	Baa2	44.5%	46.3%
11	Middlesex Water Company	A	N/A	50.8%	54.0%
12	SJW Group	A-	N/A	42.9%	44.7%
13	Average	A-	A3	45.6%	49.4%
14	Median			44.5%	46.9%
15	Spire Missouri^{3,4}	BBB+	A1		55.0%

Sources:

Note: If credit rating/common equity ratio unavailable for utility, subsidiary data used.

¹ S&P Global Market Intelligence, Downloaded on March 21, 2025.

² *The Value Line Investment Survey*, January 3 and February 21, 2025.

³ S&P Capital IQ.

⁴ Direct Testimony of Adam W. Woodard, page 10.

Spire Missouri, Inc.

Consensus Analysts' Growth Rates

<u>Line</u>	<u>Company</u>	<u>Zacks</u> ¹ (1)	<u>S&P</u> ² (2)	<u>I/B/E/S</u> ³ (3)	<u>Average of Growth Rates</u> (4)
1	Atmos Energy Corporation	7.10%	7.44%	7.00%	7.18%
2	New Jersey Resources Corporation	N/A	7.80%	N/A	7.80%
3	Northwest Natural Holding Company	6.61%	6.50%	6.00%	6.37%
4	ONE Gas, Inc.	6.54%	2.63%	N/A	4.59%
5	Southwest Gas Holdings, Inc.	5.66%	10.55%	N/A	8.11%
6	UGI Corporation	1.75%	3.73%	N/A	2.74%
7	American States Water Company	42.44%	1.75%	1.70%	15.30%
8	American Water Works Company, Inc.	6.58%	7.96%	8.30%	7.61%
9	California Water Service Group	13.96%	42.44%	42.40%	32.93%
10	Essential Utilities, Inc.	4.52%	6.51%	N/A	5.51%
11	Middlesex Water Company	4.52%	13.96%	N/A	9.24%
12	SJW Group	4.52%	4.52%	4.50%	4.51%
13	Average	9.47%	9.65%	11.65%	9.32%
14	Median	6.54%	6.97%	6.50%	7.40%

Sources:

¹ Zacks, <http://www.zacks.com/>, downloaded on March 21, 2025.

² S&P Global Market Intelligence, <https://platform.mi.spglobal.com>, downloaded on March 21, 2025.

³ LSEG Workspace, <https://www.lseg.com/en/data-analytics/products/workspace>, downloaded on March 21, 2025.

Spire Missouri, Inc.

Constant Growth DCF Model (Consensus Analysts' Growth Rates)

<u>Line</u>	<u>Company</u>	<u>13-Week AVG Stock Price¹</u> (1)	<u>Analysts' Growth²</u> (2)	<u>Annualized Dividend³</u> (3)	<u>Adjusted Yield</u> (4)	<u>Constant Growth DCF</u> (5)
1	Atmos Energy Corporation	\$144.46	7.18%	\$3.48	2.58%	9.76%
2	New Jersey Resources Corporation	\$47.05	7.80%	\$1.80	4.12%	11.92%
3	Northwest Natural Holding Company	\$40.45	6.37%	\$1.96	5.15%	11.52%
4	ONE Gas, Inc.	\$71.23	4.59%	\$2.68	3.94%	8.52%
5	Southwest Gas Holdings, Inc.	\$73.43	8.11%	\$2.48	3.65%	11.76%
6	UGI Corporation	\$31.03	2.74%	\$1.50	4.97%	7.71%
7	American States Water Company	\$75.57	15.30%	\$1.86	2.84%	18.14%
8	American Water Works Company, Inc.	\$129.79	7.61%	\$3.06	2.54%	10.15%
9	California Water Service Group	\$45.15	32.93%	\$1.12	3.30%	36.23%
10	Essential Utilities, Inc.	\$36.41	5.51%	\$1.30	3.77%	9.29%
11	Middlesex Water Company	\$53.23	9.24%	\$1.36	2.79%	12.03%
12	SJW Group	\$50.77	4.51%	\$1.60	3.29%	7.81%
13	Average	\$66.55	9.32%	\$2.02	3.58%	12.90%
14	Median	\$52.00	7.40%	\$1.83	3.47%	10.84%

Sources:

¹ S&P Global Market Intelligence, Downloaded on March 21, 2025.

² Schedule CCW-3

³ *The Value Line Investment Survey*, January 3 and February 21, 2025.

Spire Missouri, Inc.

Payout Ratios

<u>Line</u>	<u>Company</u>	<u>Dividends Per Share</u>		<u>Earnings Per Share</u>		<u>Payout Ratio</u>	
		<u>2023</u>	<u>Projected</u>	<u>2023</u>	<u>Projected</u>	<u>2023</u>	<u>Projected</u>
		(1)	(2)	(3)	(4)	(5)	(6)
1	Atmos Energy Corporation	\$2.96	\$4.45	\$6.10	\$8.65	48.52%	51.45%
2	New Jersey Resources Corporation	\$1.56	\$2.20	\$2.71	\$3.90	57.56%	56.41%
3	Northwest Natural Holding Company	\$1.94	\$2.00	\$2.59	\$3.45	74.90%	57.97%
4	ONE Gas, Inc.	\$2.60	\$2.90	\$4.14	\$5.25	62.80%	55.24%
5	Southwest Gas Holdings, Inc.	\$2.48	\$3.00	\$2.13	\$4.85	116.43%	61.86%
6	UGI Corporation	\$1.46	\$1.76	\$2.84	\$3.45	51.41%	51.01%
7	American States Water Company	\$1.66	\$2.50	\$3.37	\$3.90	49.26%	64.10%
8	American Water Works Company, Inc.	\$2.78	\$4.10	\$4.90	\$7.00	56.73%	58.57%
9	California Water Service Group	\$1.04	\$1.40	\$0.91	\$3.25	114.29%	43.08%
10	Essential Utilities, Inc.	\$1.19	\$1.75	\$1.86	\$2.65	63.98%	66.04%
11	Middlesex Water Company	\$1.26	\$1.60	\$1.76	\$3.15	71.59%	50.79%
12	SJW Group	\$1.52	\$1.85	\$2.68	\$3.55	56.72%	52.11%
13	Average	\$1.87	\$2.46	\$3.00	\$4.42	68.68%	55.72%

Source:

The Value Line Investment Survey, January 3 and February 21, 2025.

Spire Missouri, Inc.

Sustainable Growth Rate

Line	Company	3 to 5 Year Projections										Sustainable Growth Rate
		Dividends	Earnings	Book Value	Book Value	Adjustment	Adjusted	Payout	Retention	Internal		
		Per Share (1)	Per Share (2)	Per Share (3)	Growth (4)	ROE (5)	Factor (6)	ROE (7)	Ratio (8)	Rate (9)	Growth Rate (10)	
1	Atmos Energy Corporation	\$4.45	\$8.65	\$97.30	4.86%	8.89%	1.02	9.10%	51.45%	48.55%	4.42%	8.05%
2	New Jersey Resources Corporation	\$2.20	\$3.90	\$27.00	4.78%	14.44%	1.02	14.78%	56.41%	43.59%	6.44%	8.05%
3	Northwest Natural Holding Company	\$2.00	\$3.45	\$44.20	4.41%	7.81%	1.02	7.97%	57.97%	42.03%	3.35%	4.25%
4	ONE Gas, Inc.	\$2.90	\$5.25	\$69.45	6.02%	7.56%	1.03	7.78%	55.24%	44.76%	3.48%	3.54%
5	Southwest Gas Holdings, Inc.	\$3.00	\$4.85	\$58.65	4.04%	8.27%	1.02	8.43%	61.86%	38.14%	3.22%	3.68%
6	UGI Corporation	\$1.76	\$3.45	\$22.20	1.97%	15.54%	1.01	15.69%	51.01%	48.99%	7.69%	8.31%
7	American States Water Company	\$2.50	\$3.90	\$28.20	6.08%	13.83%	1.03	14.24%	64.10%	35.90%	5.11%	7.89%
8	American Water Works Company, Inc.	\$4.10	\$7.00	\$62.75	4.52%	11.16%	1.02	11.40%	58.57%	41.43%	4.72%	5.89%
9	California Water Service Group	\$1.40	\$3.25	\$34.50	6.89%	9.42%	1.03	9.73%	43.08%	56.92%	5.54%	5.54%
10	Essential Utilities, Inc.	\$1.75	\$2.65	\$27.25	4.79%	9.72%	1.02	9.95%	66.04%	33.96%	3.38%	4.10%
11	Middlesex Water Company	\$1.60	\$3.15	\$23.70	- 0.03%	13.29%	1.00	13.29%	50.79%	49.21%	6.54%	6.79%
12	SJW Group	\$1.85	\$3.55	\$44.15	2.77%	8.04%	1.01	8.15%	52.11%	47.89%	3.90%	3.90%
13	Average	\$2.46	\$4.42	\$44.95	4.26%	10.66%	1.02	10.88%	55.72%	44.28%	4.82%	5.83%
14	Median											5.71%

Sources and Notes:

Cols. (1), (2) and (3): *The Value Line Investment Survey*, January 3 and February 21, 2025.

Col. (4): [Col. (3) / Page 2 Col. (2)] ^ (1/number of years projected) - 1.

Col. (5): Col. (2) / Col. (3).

Col. (6): [2 * (1 + Col. (4))] / (2 + Col. (4)).

Col. (7): Col. (6) * Col. (5).

Col. (8): Col. (1) / Col. (2).

Col. (9): 1 - Col. (8).

Col. (10): Col. (9) * Col. (7).

Col. (11): Col. (10) + Page 2 Col. (9).

Spire Missouri, Inc.

Sustainable Growth Rate

<u>Line</u>	<u>Company</u>	<u>13-Week</u>	<u>2023</u>	<u>Market</u>	<u>Common Shares</u>		<u>Growth</u>	<u>S Factor</u> ³	<u>V Factor</u> ⁴	<u>S * V</u>
		<u>Average</u>	<u>Book Value</u>	<u>to Book</u>	<u>Outstanding (in Millions)</u> ²					
		<u>Stock Price</u> ¹	<u>Per Share</u> ²	<u>Ratio</u>	<u>2023</u>	<u>3-5 Years</u>	<u>(6)</u>	<u>(7)</u>	<u>(8)</u>	<u>(9)</u>
		(1)	(2)	(3)	(4)	(5)				
1	Atmos Energy Corporation	\$144.46	\$73.20	1.97	148.49	185.00	3.73%	7.37%	49.33%	3.63%
2	New Jersey Resources Corporation	\$47.05	\$20.40	2.31	97.58	105.00	1.23%	2.83%	56.64%	1.61%
3	Northwest Natural Holding Company	\$40.45	\$34.12	1.19	37.63	50.00	4.85%	5.75%	15.65%	0.90%
4	ONE Gas, Inc.	\$71.23	\$48.91	1.46	56.55	57.00	0.13%	0.19%	31.33%	0.06%
5	Southwest Gas Holdings, Inc.	\$73.43	\$46.25	1.59	71.56	75.00	0.79%	1.25%	37.02%	0.46%
6	UGI Corporation	\$31.03	\$19.75	1.57	210.91	225.00	1.08%	1.70%	36.36%	0.62%
7	American States Water Company	\$75.57	\$20.99	3.60	36.98	39.00	1.07%	3.85%	72.22%	2.78%
8	American Water Works Company, Inc.	\$129.79	\$50.31	2.58	194.73	202.00	0.74%	1.90%	61.24%	1.16%
9	California Water Service Group	\$45.15	\$24.72	1.83	57.72	50.00	- 2.83%	- 5.17%	45.25%	- 2.34%
10	Essential Utilities, Inc.	\$36.41	\$21.57	1.69	273.30	288.00	1.05%	1.78%	40.76%	0.72%
11	Middlesex Water Company	\$53.23	\$23.74	2.24	17.82	18.00	0.20%	0.45%	55.40%	0.25%
12	SJW Group	\$50.77	\$38.52	1.32	32.02	30.00	- 1.29%	- 1.71%	24.13%	- 0.41%
	Average	\$66.55	\$35.21	1.94	102.94	110.33	0.90%	1.68%	43.78%	0.79%

Sources and Notes:

¹ S&P Global Market Intelligence, Downloaded on March 21, 2025.

² *The Value Line Investment Survey*, January 3 and February 21, 2025.

³ Expected Growth in the Number of Shares, Column (3) * Column (6).

⁴ Expected Profit of Stock Investment, [1 - 1 / Column (3)].

Spire Missouri, Inc.

Constant Growth DCF Model (Sustainable Growth Rate)

<u>Line</u>	<u>Company</u>	<u>13-Week AVG Stock Price¹</u> (1)	<u>Sustainable Growth²</u> (2)	<u>Annualized Dividend³</u> (3)	<u>Adjusted Yield</u> (4)	<u>Constant Growth DCF</u> (5)
1	Atmos Energy Corporation	\$144.46	8.05%	\$3.48	2.60%	10.66%
2	New Jersey Resources Corporation	\$47.05	8.05%	\$1.80	4.13%	12.18%
3	Northwest Natural Holding Company	\$40.45	4.25%	\$1.96	5.05%	9.30%
4	ONE Gas, Inc.	\$71.23	3.54%	\$2.68	3.90%	7.44%
5	Southwest Gas Holdings, Inc.	\$73.43	3.68%	\$2.48	3.50%	7.18%
6	UGI Corporation	\$31.03	8.31%	\$1.50	5.24%	13.54%
7	American States Water Company	\$75.57	7.89%	\$1.86	2.66%	10.55%
8	American Water Works Company, Inc.	\$129.79	5.89%	\$3.06	2.50%	8.38%
9	California Water Service Group	\$45.15	5.54%	\$1.12	2.62%	8.16%
10	Essential Utilities, Inc.	\$36.41	4.10%	\$1.30	3.72%	7.83%
11	Middlesex Water Company	\$53.23	6.79%	\$1.36	2.73%	9.52%
12	SJW Group	\$50.77	3.90%	\$1.60	3.27%	7.18%
13	Average	\$66.55	5.83%	\$2.02	3.49%	9.33%
14	Median					8.84%

Sources:

¹ S&P Global Market Intelligence, Downloaded on March 21, 2025.

² Schedule CCW-6, page 1.

³ *The Value Line Investment Survey*, January 3 and February 21, 2025.

Spire Missouri, Inc.

Multi-Stage Growth DCF Model

Line	Company	13-Week AVG Stock Price ¹ (1)	Annualized Dividend ² (2)	First Stage Growth ³ (3)	Second Stage Growth					Third Stage Growth ⁴ (9)	Multi-Stage Growth DCF (10)
					Year 6 (4)	Year 7 (5)	Year 8 (6)	Year 9 (7)	Year 10 (8)		
1	Atmos Energy Corporation	\$144.46	\$3.48	7.18%	6.67%	6.17%	5.66%	5.15%	4.65%	4.14%	7.19%
2	New Jersey Resources Corporation	\$47.05	\$1.80	7.80%	7.19%	6.58%	5.97%	5.36%	4.75%	4.14%	9.13%
3	Northwest Natural Holding Company	\$40.45	\$1.96	6.37%	6.00%	5.63%	5.26%	4.88%	4.51%	4.14%	9.91%
4	ONE Gas, Inc.	\$71.23	\$2.68	4.59%	4.51%	4.44%	4.36%	4.29%	4.21%	4.14%	8.17%
5	Southwest Gas Holdings, Inc.	\$73.43	\$2.48	8.11%	7.44%	6.78%	6.12%	5.46%	4.80%	4.14%	8.64%
6	UGI Corporation	\$31.03	\$1.50	2.74%	2.97%	3.21%	3.44%	3.67%	3.91%	4.14%	8.75%
7	American States Water Company	\$75.57	\$1.86	15.30%	13.44%	11.58%	9.72%	7.86%	6.00%	4.14%	9.18%
8	American Water Works Company, Inc.	\$129.79	\$3.06	7.61%	7.03%	6.46%	5.88%	5.30%	4.72%	4.14%	7.21%
9	California Water Service Group	\$45.15	\$1.12	32.93%	28.14%	23.34%	18.54%	13.74%	8.94%	4.14%	15.53%
10	Essential Utilities, Inc.	\$36.41	\$1.30	5.51%	5.29%	5.06%	4.83%	4.60%	4.37%	4.14%	8.20%
11	Middlesex Water Company	\$53.23	\$1.36	9.24%	8.39%	7.54%	6.69%	5.84%	4.99%	4.14%	7.81%
12	SJW Group	\$50.77	\$1.60	4.51%	4.45%	4.39%	4.33%	4.26%	4.20%	4.14%	7.50%
13	Average	\$66.55	\$2.02	9.32%	8.46%	7.60%	6.73%	5.87%	5.00%	4.14%	8.93%
14	Median										8.42%

Sources:

¹ S&P Global Market Intelligence, Downloaded on March 21, 2025.

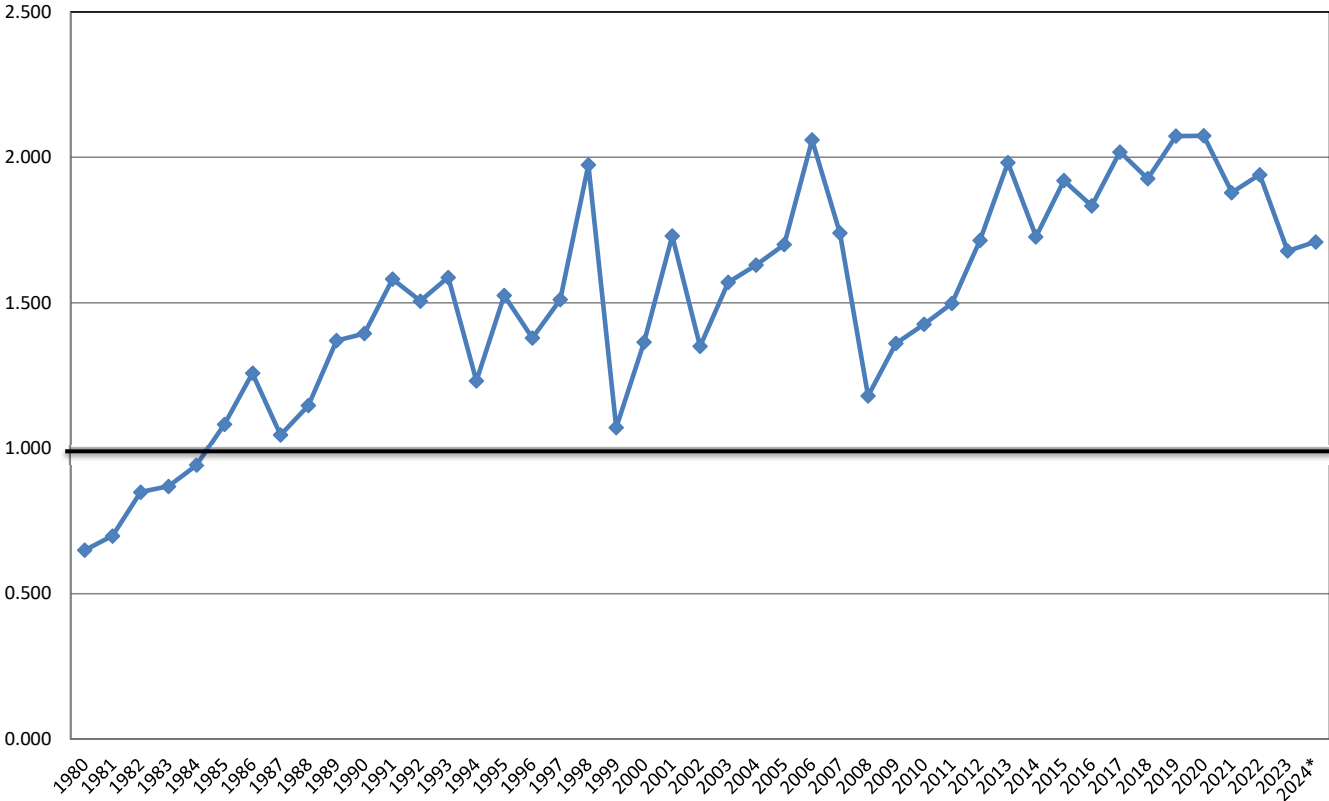
² *The Value Line Investment Survey*, January 3 and February 21, 2025.

³ Schedule CCW-3

⁴ *Blue Chip Economic Indicators*, March 10, 2025 at page 14.

Spire Missouri, Inc.

Common Stock Market/Book Ratio



Source:
1980 - 2000: Mergent Public Utility Manual.
2001 - 2015: AUS Utility Reports, multiple dates.
2016 - 2023: Value Line Investment Survey, multiple dates.
* Value Line Investment Survey Reports January 17, February 7, February 21, and March 7, 2025.

Spire Missouri, Inc.

Equity Risk Premium - Treasury Bond

<u>Line</u>	<u>Year</u>	<u>Authorized Gas Returns¹</u> (1)	<u>30 yr. Treasury Bond Yield²</u> (2)	<u>Indicated Risk Premium</u> (3)	<u>Rolling 5 - Year Average</u> (4)	<u>Rolling 10 - Year Average</u> (5)
1	1986	13.46%	7.80%	5.66%		
2	1987	12.74%	8.58%	4.16%		
3	1988	12.85%	8.96%	3.89%		
4	1989	12.88%	8.45%	4.43%		
5	1990	12.67%	8.61%	4.06%	4.44%	
6	1991	12.46%	8.14%	4.32%	4.17%	
7	1992	12.01%	7.67%	4.34%	4.21%	
8	1993	11.35%	6.60%	4.75%	4.38%	
9	1994	11.35%	7.37%	3.98%	4.29%	
10	1995	11.43%	6.88%	4.55%	4.39%	4.42%
11	1996	11.19%	6.70%	4.49%	4.42%	4.30%
12	1997	11.29%	6.61%	4.68%	4.49%	4.35%
13	1998	11.51%	5.58%	5.93%	4.73%	4.55%
14	1999	10.66%	5.87%	4.79%	4.89%	4.59%
15	2000	11.39%	5.94%	5.45%	5.07%	4.73%
16	2001	10.95%	5.49%	5.46%	5.26%	4.84%
17	2002	11.03%	5.43%	5.60%	5.45%	4.97%
18	2003	10.99%	4.96%	6.03%	5.47%	5.10%
19	2004	10.59%	5.05%	5.54%	5.62%	5.25%
20	2005	10.46%	4.65%	5.81%	5.69%	5.38%
21	2006	10.40%	4.87%	5.53%	5.70%	5.48%
22	2007	10.22%	4.83%	5.39%	5.66%	5.55%
23	2008	10.39%	4.28%	6.11%	5.68%	5.57%
24	2009	10.22%	4.07%	6.15%	5.80%	5.71%
25	2010	10.15%	4.25%	5.90%	5.81%	5.75%
26	2011	9.92%	3.91%	6.01%	5.91%	5.81%
27	2012	9.94%	2.92%	7.02%	6.24%	5.95%
28	2013	9.68%	3.45%	6.23%	6.26%	5.97%
29	2014	9.78%	3.34%	6.44%	6.32%	6.06%
30	2015	9.60%	2.84%	6.76%	6.49%	6.15%
31	2016	9.54%	2.60%	6.94%	6.68%	6.29%
32	2017	9.72%	2.90%	6.83%	6.64%	6.44%
33	2018	9.59%	3.11%	6.48%	6.69%	6.48%
34	2019	9.71%	2.58%	7.13%	6.83%	6.57%
35	2020	9.46%	1.56%	7.90%	7.05%	6.77%
36	2021	9.56%	2.05%	7.51%	7.17%	6.92%
37	2022	9.53%	3.12%	6.42%	7.08%	6.86%
38	2023	9.60%	4.09%	5.51%	6.89%	6.79%
39	2024 ³	9.71%	4.41%	5.30%	6.53%	6.68%
40	Average	10.77%	5.14%	5.63%	5.67%	5.68%
41	Minimum				4.17%	4.30%
42	Maximum				7.17%	6.92%

Sources:

¹ Regulatory Research Associates, Inc., Regulatory Focus, Major Rate Case Decisions, Jan. 1997 p. 5, and Jan. 2011 p. 3.
S&P Global Market Intelligence, RRA Regulatory Focus, Major Rate Case Decisions, January - December 2024,
February 3, 2025 at page 3.

² St. Louis Federal Reserve: Economic Research, <http://research.stlouisfed.org/>.

The yields from 2002 to 2005 represent the 20-Year Treasury yields obtained from the Federal Reserve Bank.

³ Data represents January - December, 2024.

Spire Missouri, Inc.

Equity Risk Premium - Utility Bond

<u>Line</u>	<u>Year</u>	<u>Authorized Gas Returns¹</u> (1)	<u>"A" Rated Utility Bond Yield²</u> (2)	<u>Indicated Risk Premium</u> (3)	<u>Rolling 5 - Year Average</u> (4)	<u>Rolling 10 - Year Average</u> (5)
1	1986	13.46%	9.58%	3.88%		
2	1987	12.74%	10.10%	2.64%		
3	1988	12.85%	10.49%	2.36%		
4	1989	12.88%	9.77%	3.11%		
5	1990	12.67%	9.86%	2.81%	2.96%	
6	1991	12.46%	9.36%	3.10%	2.80%	
7	1992	12.01%	8.69%	3.32%	2.94%	
8	1993	11.35%	7.59%	3.76%	3.22%	
9	1994	11.35%	8.31%	3.04%	3.21%	
10	1995	11.43%	7.89%	3.54%	3.35%	3.16%
11	1996	11.19%	7.75%	3.44%	3.42%	3.11%
12	1997	11.29%	7.60%	3.69%	3.49%	3.22%
13	1998	11.51%	7.04%	4.47%	3.64%	3.43%
14	1999	10.66%	7.62%	3.04%	3.64%	3.42%
15	2000	11.39%	8.24%	3.15%	3.56%	3.45%
16	2001	10.95%	7.76%	3.19%	3.51%	3.46%
17	2002	11.03%	7.37%	3.66%	3.50%	3.50%
18	2003	10.99%	6.58%	4.41%	3.49%	3.56%
19	2004	10.59%	6.16%	4.43%	3.77%	3.70%
20	2005	10.46%	5.65%	4.81%	4.10%	3.83%
21	2006	10.40%	6.07%	4.33%	4.33%	3.92%
22	2007	10.22%	6.07%	4.15%	4.43%	3.96%
23	2008	10.39%	6.53%	3.86%	4.32%	3.90%
24	2009	10.22%	6.04%	4.18%	4.27%	4.02%
25	2010	10.15%	5.46%	4.69%	4.24%	4.17%
26	2011	9.92%	5.04%	4.88%	4.35%	4.34%
27	2012	9.94%	4.13%	5.81%	4.68%	4.55%
28	2013	9.68%	4.48%	5.20%	4.95%	4.63%
29	2014	9.78%	4.28%	5.50%	5.22%	4.74%
30	2015	9.60%	4.12%	5.49%	5.38%	4.81%
31	2016	9.54%	3.93%	5.61%	5.52%	4.94%
32	2017	9.72%	4.00%	5.72%	5.50%	5.09%
33	2018	9.59%	4.25%	5.34%	5.53%	5.24%
34	2019	9.71%	3.77%	5.94%	5.62%	5.42%
35	2020	9.46%	3.02%	6.44%	5.81%	5.59%
36	2021	9.56%	3.11%	6.45%	5.98%	5.75%
37	2022	9.53%	4.72%	4.81%	5.80%	5.65%
38	2023	9.60%	5.54%	4.06%	5.54%	5.54%
39	2024 ³	9.71%	5.54%	4.17%	5.19%	5.40%
39	Average	10.77%	6.50%	4.27%	4.32%	4.32%
40	Minimum				2.80%	3.11%
41	Maximum				5.98%	5.75%

Sources:

¹ Regulatory Research Associates, Inc., Regulatory Focus, Major Rate Case Decisions, Jan. 1997 p. 5, and Jan. 2011 p. 3.
S&P Global Market Intelligence, RRA Regulatory Focus, Major Rate Case Decisions, January - December 2024,
February 3, 2025 at page 3.

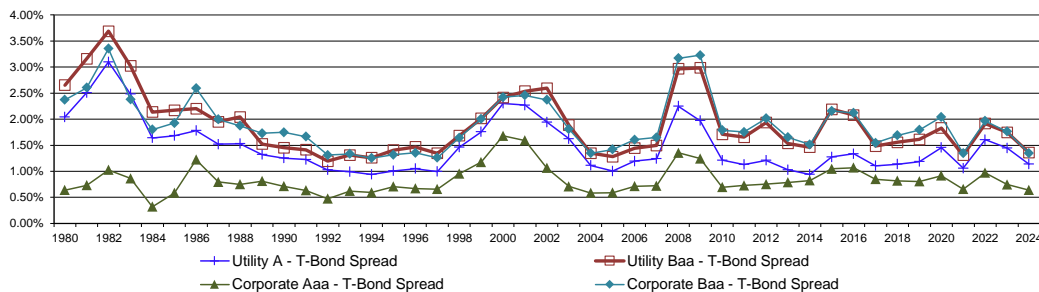
² The utility bond yields for the period 1980-2005 were obtained from the St. Louis Federal Reserve: Economic Research, <http://research.stlouisfed.org>

Spire Missouri, Inc.

Bond Yield Spreads

Line	Year	T-Bond Yield ¹ (1)	Public Utility Bond				Corporate Bond				Utility to Corporate	
			A ² (2)	Baa ² (3)	A-T-Bond Spread (4)	Baa-T-Bond Spread (5)	Aaa ³ (6)	Baa ³ (7)	Aaa-T-Bond Spread (8)	Baa-T-Bond Spread (9)	Baa Spread (10)	A-Aaa Spread (11)
1	1980	11.30%	13.34%	13.95%	2.04%	2.65%	11.94%	13.67%	0.64%	2.37%	0.28%	1.40%
2	1981	13.44%	15.95%	16.60%	2.51%	3.16%	14.17%	16.04%	0.73%	2.60%	0.56%	1.78%
3	1982	12.76%	15.86%	16.45%	3.10%	3.69%	13.79%	16.11%	1.03%	3.35%	0.34%	2.07%
4	1983	11.18%	13.66%	14.20%	2.48%	3.02%	12.04%	13.55%	0.86%	2.38%	0.65%	1.62%
5	1984	12.39%	14.03%	14.53%	1.64%	2.14%	12.71%	14.19%	0.32%	1.80%	0.34%	1.32%
6	1985	10.79%	12.47%	12.96%	1.68%	2.17%	11.37%	12.72%	0.58%	1.93%	0.24%	1.10%
7	1986	7.80%	9.58%	10.00%	1.78%	2.20%	9.02%	10.39%	1.22%	2.59%	-0.39%	0.56%
8	1987	8.58%	10.10%	10.53%	1.52%	1.95%	9.38%	10.58%	0.80%	2.00%	-0.05%	0.72%
9	1988	8.96%	10.49%	11.00%	1.53%	2.04%	9.71%	10.83%	0.75%	1.87%	0.17%	0.78%
10	1989	8.45%	9.77%	9.97%	1.32%	1.52%	9.26%	10.18%	0.81%	1.73%	-0.21%	0.51%
11	1990	8.61%	9.86%	10.06%	1.25%	1.45%	9.32%	10.36%	0.71%	1.75%	-0.30%	0.54%
12	1991	8.14%	9.36%	9.55%	1.22%	1.41%	8.77%	9.80%	0.63%	1.67%	-0.25%	0.59%
13	1992	7.67%	8.69%	8.86%	1.02%	1.19%	8.14%	8.98%	0.47%	1.31%	-0.12%	0.55%
14	1993	6.60%	7.59%	7.91%	0.99%	1.31%	7.22%	7.93%	0.62%	1.33%	-0.02%	0.37%
15	1994	7.37%	8.31%	8.63%	0.94%	1.26%	7.96%	8.62%	0.59%	1.25%	0.01%	0.35%
16	1995	6.88%	7.89%	8.29%	1.01%	1.41%	7.59%	8.20%	0.71%	1.32%	0.09%	0.30%
17	1996	6.70%	7.75%	8.17%	1.05%	1.47%	7.37%	8.05%	0.67%	1.35%	0.12%	0.38%
18	1997	6.61%	7.60%	7.95%	0.99%	1.34%	7.26%	7.86%	0.66%	1.26%	0.09%	0.34%
19	1998	5.58%	7.04%	7.26%	1.46%	1.68%	6.53%	7.22%	0.95%	1.64%	0.04%	0.51%
20	1999	5.87%	7.62%	7.88%	1.75%	2.01%	7.04%	7.87%	1.18%	2.01%	0.01%	0.58%
21	2000	5.94%	8.24%	8.36%	2.30%	2.42%	7.62%	8.36%	1.68%	2.42%	-0.01%	0.62%
22	2001	5.49%	7.76%	8.03%	2.27%	2.54%	7.08%	7.95%	1.59%	2.45%	0.08%	0.68%
23	2002	5.43%	7.37%	8.02%	1.94%	2.59%	6.49%	7.80%	1.06%	2.37%	0.22%	0.88%
24	2003	4.96%	6.58%	6.84%	1.62%	1.89%	5.67%	6.77%	0.71%	1.81%	0.08%	0.91%
25	2004	5.05%	6.16%	6.40%	1.11%	1.35%	5.63%	6.39%	0.58%	1.35%	0.00%	0.53%
26	2005	4.65%	5.65%	5.93%	1.00%	1.28%	5.24%	6.06%	0.59%	1.42%	-0.14%	0.41%
27	2006	4.87%	6.07%	6.32%	1.20%	1.44%	5.58%	6.48%	0.71%	1.61%	-0.16%	0.48%
28	2007	4.83%	6.07%	6.33%	1.24%	1.50%	5.56%	6.48%	0.72%	1.65%	-0.15%	0.52%
29	2008	4.28%	6.53%	7.25%	2.25%	2.97%	5.63%	7.45%	1.35%	3.17%	-0.20%	0.90%
30	2009	4.07%	6.04%	7.06%	1.97%	2.99%	5.31%	7.30%	1.24%	3.23%	-0.24%	0.73%
31	2010	4.25%	5.46%	5.96%	1.21%	1.71%	4.94%	6.04%	0.69%	1.79%	-0.08%	0.52%
32	2011	3.91%	5.04%	5.57%	1.13%	1.66%	4.64%	5.66%	0.73%	1.75%	-0.10%	0.40%
33	2012	2.92%	4.13%	4.86%	1.21%	1.93%	3.67%	4.94%	0.75%	2.01%	-0.08%	0.46%
34	2013	3.45%	4.48%	4.98%	1.03%	1.54%	4.24%	5.10%	0.79%	1.65%	-0.12%	0.24%
35	2014	3.34%	4.28%	4.80%	0.94%	1.46%	4.16%	4.85%	0.82%	1.51%	-0.05%	0.12%
36	2015	2.84%	4.12%	5.03%	1.27%	2.19%	3.89%	5.00%	1.05%	2.16%	0.03%	0.23%
37	2016	2.60%	3.93%	4.68%	1.34%	2.08%	3.67%	4.72%	1.07%	2.12%	-0.04%	0.27%
38	2017	2.90%	4.00%	4.38%	1.10%	1.48%	3.74%	4.44%	0.85%	1.55%	-0.06%	0.26%
39	2018	3.11%	4.25%	4.67%	1.14%	1.56%	3.93%	4.80%	0.82%	1.69%	-0.13%	0.32%
40	2019	2.58%	3.77%	4.19%	1.19%	1.61%	3.39%	4.38%	0.81%	1.79%	-0.18%	0.38%
41	2020	1.56%	3.02%	3.39%	1.45%	1.83%	2.48%	3.60%	0.91%	2.04%	-0.21%	0.54%
42	2021	2.05%	3.11%	3.36%	1.06%	1.31%	2.71%	3.40%	0.66%	1.35%	-0.04%	0.40%
43	2022	3.12%	4.72%	5.03%	1.61%	1.91%	4.09%	5.08%	0.97%	1.97%	-0.05%	0.64%
44	2023	4.09%	5.54%	5.84%	1.45%	1.75%	4.84%	5.85%	0.75%	1.76%	-0.01%	0.70%
45	2024 ⁴	4.41%	5.54%	5.76%	1.14%	1.36%	5.04%	5.75%	0.64%	1.35%	0.01%	0.50%
46	Average	6.05%	7.53%	7.95%	1.48%	1.90%	6.88%	7.95%	0.83%	1.90%	0.00%	0.64%

Yield Spreads
Treasury Vs. Corporate & Treasury Vs. Utility



Sources:

- ¹ St. Louis Federal Reserve: Economic Research, <http://research.stlouisfed.org/>.
- ² The utility yields for the period 1980-2000 were obtained from Mergent Public Utility Manual, Mergent Weekly News Reports, 2003. The utility yields for the period 2001-2024 were obtained from the Mergent Bond Record.
- ³ The corporate yields for the period 1980-2005 were obtained from the St. Louis Federal Reserve: Economic Research, <http://research.stlouisfed.org/>. The corporate yields from 2006-2024 were obtained from <http://credittrends.moodys.com/>.
- ⁴ Data represents January - December, 2024.

Spire Missouri, Inc.

3 and 6 Month Treasury and Utility Bond Yields

<u>Line</u>	<u>Date</u>	<u>Treasury Bond Yield¹</u> (1)	<u>"A" Rated Utility Bond Yield²</u> (2)	<u>"Baa" Rated Utility Bond Yield²</u> (3)
1	December-24	4.58%	5.58%	5.77%
2	November-24	4.54%	5.55%	5.75%
3	October-24	4.38%	5.41%	5.61%
4	September-24	4.04%	5.20%	5.41%
5	August-24	4.15%	5.38%	5.61%
6	July-24	4.46%	5.64%	5.85%
7	3-Month Average	4.50%	5.51%	5.71%
8	Spread To Treasury		1.01%	1.21%
9	6-Month Average	4.36%	5.46%	5.67%
10	Spread To Treasury		1.10%	1.31%

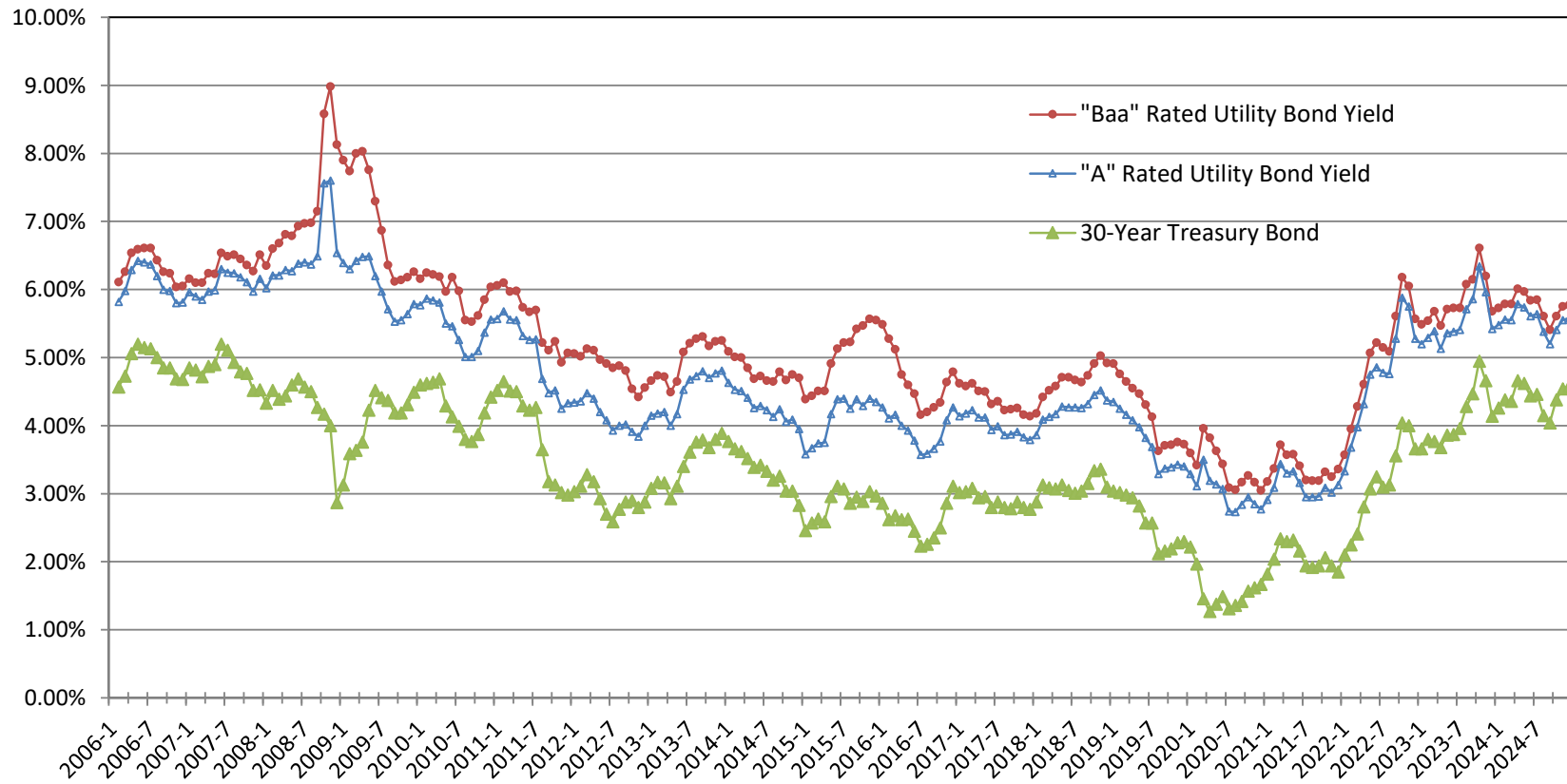
Sources:

¹ St. Louis Federal Reserve: Economic Research, <http://research.stlouisfed.org>.

² Mergent Bond Record.

Spire Missouri, Inc.

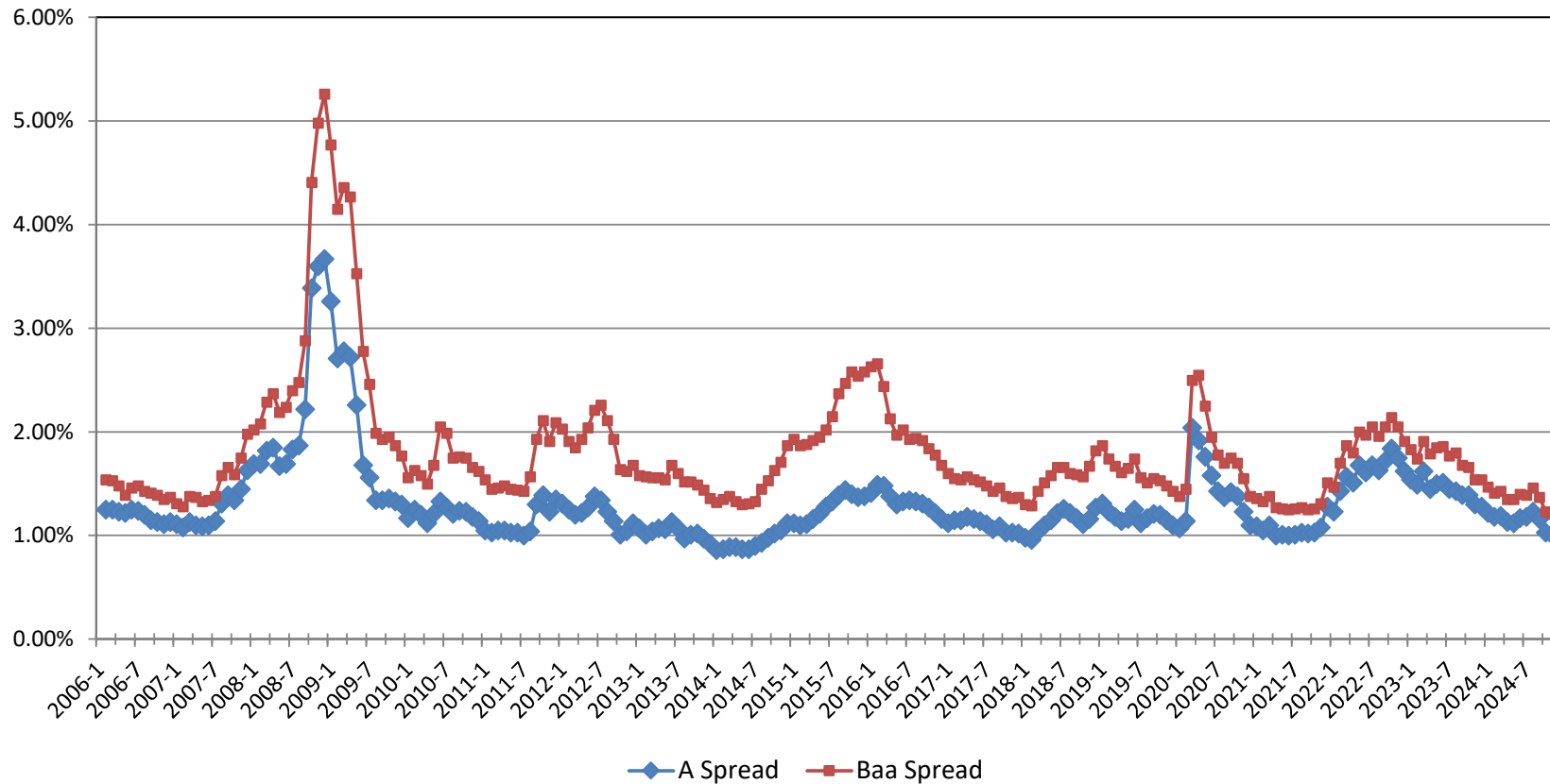
Trends in Bond Yields



Sources:
Mergent Bond Record.
www.moodys.com, Bond Yields and Key Indicators.
St. Louis Federal Reserve: Economic Research, <http://research.stlouisfed.org/>

Spire Missouri, Inc.

Yield Spread Between Utility Bonds and 30-Year Treasury Bonds



Sources:

Mergent Bond Record.

www.moodys.com, Bond Yields and Key Indicators.

St. Louis Federal Reserve: Economic Research, <http://research.stlouisfed.org/>

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Beta

<u>Line</u>	<u>Company</u>	<u>Beta</u> ¹	<u>Historical</u> <u>Beta</u> ²	<u>S&P Global</u> <u>Market Intelligence</u> <u>Beta</u> ³	<u>3-Year VL</u> <u>Methodology</u> <u>Beta</u> ⁴
1	Atmos Energy Corporation	0.90	0.77	0.66	0.76
2	New Jersey Resources Corporation	1.00	0.86	0.69	0.75
3	Northwest Natural Holding Company	0.90	0.73	0.64	0.79
4	ONE Gas, Inc.	0.85	0.76	0.68	0.75
5	Southwest Gas Holdings, Inc.	0.95	0.84	0.74	0.79
6	UGI Corporation	1.15	N/A	0.80	0.89
7	American States Water Company	0.75	0.70	0.62	0.78
8	American Water Works Company, Inc.	1.00	0.77	0.80	0.87
9	California Water Service Group	0.75	0.72	0.67	0.83
10	Essential Utilities, Inc.	1.00	0.82	0.76	0.81
11	Middlesex Water Company	0.80	0.73	0.66	0.77
12	SJW Group	0.85	0.76	0.66	0.76
13	Average	0.91	0.77	0.70	0.80
14	Median	0.90	0.76	0.67	0.78

Source:

¹ *The Value Line Investment Survey*, January 3 and February 21, 2025.

² Value Line Software Analyzer.

³ S&P Global Market Intelligence, betas for the period 3/21/2020 - 3/21/2025.

⁴ S&P Global Market Intelligence, betas for the period 3/21/2022 - 3/21/2025.

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CAPM Return

<u>Line</u>	<u>Description</u>	<u>Kroll Normalized MRP (1)</u>	<u>Risk Premium Derived MRP (2)</u>	<u>Average FERC S&P 500 DCF Derived MRP (3)</u>
<u>Current Beta</u>				
1	Risk-Free Rate ^{1,2}	4.78%	4.60%	4.60%
2	Market Risk Premium	5.00%	7.10%	7.80%
3	Beta ⁷	0.91	0.91	0.91
4	CAPM	9.32%	11.05%	11.69%
<u>Historical Beta</u>				
5	Risk-Free Rate ^{1,2}	4.78%	4.60%	4.60%
6	Market Risk Premium ^{1,3}	5.00%	7.10%	7.80%
7	Beta ⁷	0.77	0.77	0.77
8	CAPM	8.62%	10.05%	10.58%
<u>Current S&P Global Market Intelligence Beta</u>				
9	Risk-Free Rate ^{1,2}	4.78%	4.60%	4.60%
10	Market Risk Premium ^{1,3}	5.00%	7.10%	7.80%
11	Beta ⁷	0.70	0.70	0.70
12	CAPM	8.27%	9.56%	10.05%
<u>3-Year S&P Global Market Intelligence Beta Adjusted Using VL Methodology</u>				
13	Risk-Free Rate ^{1,2}	4.78%	4.60%	4.60%
14	Market Risk Premium ^{1,3}	5.00%	7.10%	7.80%
15	Beta ⁴	0.80	0.80	0.80
16	CAPM	8.76%	10.25%	10.80%

Sources:

¹ *Kroll Cost of Capital Navigator.*

² *Blue Chip Financial Forecast February 28, 2025.*

³ Schedule CCW-15, page 2

⁴ Schedule CCW-14.

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Development of the Market Risk Premium

<u>Line</u>	<u>Description</u>	<u>MRP</u>
<u>Risk Premium Based Method:</u>		
1	Lg. Co. Stock Real Market Return	9.02% ¹
2	Projected Consumer Price Index	<u>2.50%</u> ²
3	Expected Market Return	11.75%
4	Risk-Free Rate	<u>4.60%</u> ²
5	Market Risk Premium	7.10%
<u>FERC S&P 500 (Dividend Companies) 1-Step DCF Based Method:</u>		
6	S&P 500 Growth	10.50% ³
7	Index Dividend Yield	1.70% ³
8	Adjusted Yield	<u>1.79%</u>
9	Expected Market Return	12.29%
10	Risk-Free Rate	<u>4.60%</u> ²
11	Market Risk Premium	7.70%
<u>FERC S&P 500 (All Companies) 1-Step DCF Based Method:</u>		
12	Short-Term S&P 500 Growth	10.90% ⁴
13	Index Dividend Yield	1.50% ⁴
14	Adjusted Yield	<u>1.58%</u>
15	Expected Market Return	12.48%
16	Risk-Free Rate	<u>4.60%</u> ²
17	Market Risk Premium	7.90%
18	Average DCF Based MRP	7.80%

Sources & Note:

¹ Morningstar Direct.

² *Blue Chip Financial Forecast February 28, 2025.*

³ S&P 500 1-Step DCF through March 21, 2025 for Dividend Paying Companies.

⁴ S&P 500 1-Step DCF through March 21, 2025 for all Companies.