Exhibit No.:
Issues: Revenue Requirement/Rate of Return
Witness: Christopher C. Walters
Type of Exhibit: Rebuttal Testimony
Sponsoring Party: Missouri Industrial Energy Consumers
Case No.: GR-2025-0107
Date Testimony Prepared: May 30, 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**

Rebuttal Testimony of

Christopher C. Walters

On behalf of

Missouri Industrial Energy Consumers

May 30, 2025

BRUBAKER & ASSOCIATES, INC.

Project 11770

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**

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 is my rebuttal testimony which was 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 is true and correct and that it shows the matters and things that it purports to show.

Christopher C. Walters

Subscribed and sworn to before me this 30th day of May, 2025.

ADRIENNE J. FOLLETT
Notary Public - Notary Seal
STATE OF MISSOURI
Jefferson County
My Commission Expires: Mar. 22, 2029
Commission # 21989987

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**

Table of Contents to the Rebuttal Testimony of Christopher C. Walters

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**

Rebuttal Testimony of Christopher C. Walters

Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

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

Q ARE YOU THE SAME CHRISTOPHER C. WALTERS WHO HAS PREVIOUSLY FILED TESTIMONY IN THIS PROCEEDING?

A Yes. I have previously filed Direct Testimony on April 23, 2025 in this proceeding.

Q ARE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE OUTLINED IN YOUR PRIOR TESTIMONY?

A Yes. This information is included in my Direct Testimony filed on April 23, 2025.

Q ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?

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

I. INTRODUCTION AND SUMMARY

Q WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A The purpose of my testimony is to offer a review and critique of the analysis and recommendations of Spire Missouri Inc. ("Spire Missouri" or "Company") witness Mr. Adam Woodard. In particular I will be responding to Mr. Woodard's analyses and testimony he relied upon to form his recommendations as it relates to the Company's cost of equity and capital structure.

My silence regarding any position taken by any other party in their Direct Testimony or other filings in this proceeding does not indicate my tacit endorsement of that position.

Q PLEASE SUMMARIZE YOUR CONCLUSIONS RELATING TO MR. WOODARD'S TESTIMONY AND ANALYSIS IN THIS PROCEEDING.

A After careful review of Mr. Woodard's testimony, I conclude Mr. Woodard's analysis contains material flaws and biases that produce excessive cost of equity estimates for Spire Missouri. Further, Mr. Woodard's recommended capital structure unnecessarily increases the cost of capital and revenue requirements to ratepayers. I recommend the Missouri Public Service Commission ("Commission") reject Mr. Woodard's recommended return on equity ("ROE") of 10.50% and the Company's requested equity ratio of 55%. I continue to recommend the Commission authorize an ROE of 9.45% and an equity ratio of no higher than 53.2%.

II. RESPONSE TO MR. WOODARD

A. Summary of Mr. Woodard's Analytical Methods

Q PLEASE SUMMARIZE MR. WOODARD'S ROE ESTIMATES.

A Mr. Woodard's ROE estimates are summarized in Table CCW-1 below. With prudent and reasonable adjustments to Mr. Woodard's Discounted Cash Flow ("DCF") model, Capital Asset Pricing Model ("CAPM"), Empirical CAPM ("ECAPM"), and RISK PREMIUM return estimates, his studies show that my recommended ROE of 9.45% as presented in my Direct Testimony is reasonable.

TABLE CCW-1

Mr. Woodard's Return on Equity Estimates

Description	Woodard Results[1]	
Constant Growth DCF (Value Line)	Average	Median
Gas Proxy Group	10.65%	10.57%
Expanded Proxy Group	9.71%	9.37%
DCF Average	**10.18%**	**9.97%**
Constant Growth DCF (Consensus Growth)	Average	Median
Gas Proxy Group	11.29%	10.36%
Expanded Proxy Group	10.50%	10.16%
DCF Average	**10.89%**	**10.26%**
CAPM	Average	Median
Gas Proxy Group	10.91%	10.74%
Expanded Proxy Group	11.15%	10.91%
CAPM Average	**11.03%**	**10.83%**
ECAPM	Average	Median
Gas Proxy Group	11.04%	10.91%
Expanded Proxy Group	11.22%	11.04%
CAPM Average	**11.13%**	**10.98%**
Risk Premium	**10.53%**	
Recommended Range	10.00% - 11.00%	
ROE Recommendation	**10.50%**	

Q ARE MR. WOODARD'S ROE ESTIMATES REASONABLE?

A No. Mr. Woodard's estimated ROE is overstated and should be rejected. Specifically, Mr. Woodard's analyses produce excessive results for various reasons, including the following:

1. He has inappropriately included several companies in his proxy groups;
2. His constant growth DCF results are based on unsustainably high growth rates;
3. His CAPM is based on excessive beta values and an excessive estimate of the risk-free rate;
4. In addition to the same flaws that are present in his traditional CAPM, his ECAPM overstates the cost of equity further by incorrectly incorporating the use of adjusted beta estimates; and
5. His Risk Premium model is predicated on an excessive estimated equity risk premium.

I will discuss my concerns with each of his analytical methods and conclusions below.

B. Mr. Woodard's Proxy Groups

Q PLEASE DESCRIBE MR. WOODARD'S PROXY GROUPS.

A Mr. Woodard's analyses consider the results of models applied to two different proxy groups. The first proxy group is comprised of eight regulated natural gas distribution utility companies. He identifies this as his "base" group. His second proxy group includes 26 companies from natural gas, water, and electric utility sectors.

Q WHAT CONCERNS DO YOU HAVE WITH MR. WOODARD'S PROXY GROUPS?

A Mr. Woodard's proxy groups include several companies that should have been excluded. For example, both of his proxy groups included Chesapeake Utilities and NiSource Incorporated ("NiSource"). Chesapeake Utilities should not be considered a

comparable risk proxy company due to it, and its subsidiaries, not being a rated entity by Standard & Poor's ("S&P") or Moody's Investors Service ("Moody's"). Credit ratings provide a comprehensive independent assessment of a company's total business and financial risk. Credit ratings are one of the most common indicators of risk comparability used by rate of return ("ROR") experts in regulated utility proceedings such as this one. If an entity, nor any of its subsidiaries, does not have a credit rating, it should not be relied upon to assess the subject utility's cost of equity.

As explained in my Direct Testimony, NiSource had engaged in a significant transaction where it divested a 20% stake in its vertically integrated electric utility, NIPSCO. NiSource closed on the divestiture in early 2024. At the time of the announcement, the announced value of the transaction represented nearly 20% of NiSource's market capitalization, making this a significant and transformative transaction. NiSource should not be included in the proxy group.

In his expanded group, Mr. Woodard included ALLETE, Inc ("ALLETE"). ALLETE is the target of a pending acquisition by a coalition of investors primarily comprised of the Canada Pension Plan Investment Board and Global Infrastructure Management, LLC. The proposed acquisition was announced on May 6, 2024 and is still pending. ALLETE should not be included in the proxy group.

In addition, Mr. Woodard included other companies that should have not been considered, including several vertically integrated electric utilities like Alliant Energy Corporation, Ameren Corporation, Avista Corporation, IDACORP, Inc., MGE Energy, Inc., NorthWestern Energy Group, Inc., OGE Energy Corp., Pinnacle West Capital Corp., Portland General Electric Company, and TXNM Energy Inc. A vertically integrated electric utility should not be included in a proxy group for a gas utility because their business models and risk profiles differ significantly. Vertically integrated

electric utilities typically engage in generation, transmission, and distribution activities, exposing them to risks associated with fuel procurement, power plant operations, and wholesale energy markets. In contrast, gas distribution utilities primarily deliver natural gas and face different regulatory structures, operational risks, and investment profiles. Including vertically integrated electric utilities in a gas proxy group would, thus, misrepresent the gas utility's risk and could distort cost of equity estimates.

Mr. Woodard's incomparable proxy groups warrant his analyses flawed and unreliable for estimating the cost of equity for Spire Missouri.

C. Mr. Woodard's Constant Growth DCF

Q PLEASE DESCRIBE MR. WOODARD'S CONSTANT GROWTH DCF RETURN ESTIMATES.

A Mr. Woodard's constant growth DCF returns are developed on his Schedules AWW-D-4 and D-5. Mr. Woodard's constant growth DCF models are based on consensus growth rates published by Factset, as well as individual growth rate projections made by *Value Line*.

He relied on dividend yield calculations based on closing stock prices on November 15, 2024. Mr. Woodard's DCF analysis is applied to his "base" proxy group of eight natural gas utility companies as well as his "expanded" proxy group including 26 regulated natural gas, water, and electric utility companies. Using Value Line's growth forecasts, his base proxy group produced an average ROE of 10.65% (median 10.57%) with an average growth rate of 6.81%, while the expanded group produced an average ROE of 9.71% (median 9.37%) with an average growth rate of 6.08%. Using consensus analyst forecasts, the base proxy group's average result

is 11.29% (median 10.36%) and an average growth rate of 7.44%, and the expanded group averaging 10.50% (median 10.16%) with an average growth rate of 6.69%.

Q ARE THE CONSTANT GROWTH DCF RESULTS PRODUCED BY MR. WOODARD REASONABLE?

A No. Notwithstanding the significant flaws present in Mr. Woodard's proxy group, his DCF results are overstated primarily due to the fact that his growth rates are substantially higher than the projected long-term growth rate of the United States ("U.S.") economy. Specifically, Mr. Woodard's constant growth DCF model is based on growth rates of 6.08% to 7.44% on average. These growth rates exceed the projected long-term Gross Domestic Product ("GDP") growth rate of 4.14%, meaning even his lowest average growth rate scenario produces excessive results. As I discuss in greater detail below and in my Direct Testimony, growth rates that exceed the growth rate of GDP in the country in which the utility provides goods and services cannot be sustained. Therefore, his DCF model results should be considered high-end return estimates. Given the fact that Mr. Woodard's lowest and highest average growth scenarios 6.08% and 7.44%, which exceed the consensus long-term projected growth rate of the U.S. economy by 194 and 230 basis points, respectively, they should be given little weight. Because of the economic infirmities with his assumed proxy company growth rate that exceeds the expected growth of the U.S. economy in perpetuity, Mr. Woodard should have considered the results of a multi-stage DCF.

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

A A utility's long-term earnings and dividend growth are primarily driven by additions to rate base, which in turn depend on factors such as economic growth in its service territory, system reliability needs, and public policy initiatives like renewable energy mandates. Over the long run, a utility cannot grow faster than the economy in which it operates. Therefore, the projected nominal U.S. GDP growth rate serves as a reasonable and conservative proxy for the maximum sustainable long-term growth rate of a utility.

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

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

> The constant growth model is most appropriate for mature companies with a stable history of growth and stable future expectations. Expected growth rates vary somewhat among companies, but dividends for mature firms are often expected to grow in the future at about the same rate as nominal gross domestic product (real GDP plus inflation).[1]

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

> **Estimating Growth Rates**
>
> One of the advantages of a three-stage discounted cash flow model is that it fits with life cycle theories in regards to company growth. In these

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

theories, companies are assumed to have a life cycle with varying growth characteristics. Typically, the potential for extraordinary growth in the near term eases over time and eventually growth slows to a more stable level.

* * *

Another approach to estimating long-term growth rates is to focus on estimating the overall economic growth rate. Again, this is the approach used in the *Ibbotson Cost of Capital Yearbook*. To obtain the economic growth rate, a forecast is made of the growth rate's component parts. Expected growth can be broken into two main parts: expected inflation and expected real growth. By analyzing these components separately, it is easier to see the factors that drive growth.[2]

Q WHAT WOULD THE RESULTS OF A MULTI-STAGE DCF ANALYSIS LOOK LIKE UNDER A PROPERLY CONSTRUCTED PROXY GROUP?

A As shown in my Schedule CCW-8 attached to my Direct Testimony, a multi-stage DCF analysis applied to a properly constructed proxy group would produce average and median results of 8.93% and 8.42%, respectively.

D. Mr. Woodard's CAPM Studies

Q PLEASE DESCRIBE MR. WOODARD'S CAPM ANALYSIS.

A The CAPM analysis is based upon the theory that the market required ROR for a security is equal to the risk-free rate, plus a risk premium associated with the specific security. The risk premium associated with the specific security is expressed mathematically as:

Bi x (Rm - Rf) where:

Bi = Beta - Measure of the risk for stock
Rm = Expected return for the market portfolio
Rf = Risk-free rate

[2]Morningstar, Inc., Ibbotson SBBI 2013 Valuation Yearbook at pages 51 and 52.

Q PLEASE DESCRIBE MR. WOODARD'S ESTIMATES FOR BETA.

A Mr. Woodard relied on current estimates of beta from *Value Line*. His base proxy group's average beta is 0.93 and his expanded proxy group's average beta is 0.96.

Q PLEASE DESCRIBE MR. WOODARD'S ESTIMATES FOR THE RISK-FREE RATE.

A For his estimate of the risk-free rate, Mr. Woodard relied on the current 30-year Treasury bond yield of 4.62%.

Q PLEASE DESCRIBE MR. WOODARD'S MARKET RISK PREMIUM ("MRP").

A Mr. Woodard derived his MRP by subtracting the long-term average 10-year Treasury yield of 4.86% from the long-term average total return on the S&P 500 of 11.66% over the period of 1927-2023. This produced a historical average MRP of 6.80%.

Q PLEASE DESCRIBE THE ISSUES YOU HAVE WITH MR. WOODARD'S CAPM STUDY.

A I have several concerns with Mr. Woodard's CAPM analysis. First, he measures a MRP over a 10-year Treasury yield while incorporating a 30-year Treasury yield within the CAPM formula, presenting a significant mismatch. Second, his betas are biased upward and do not capture current investor perceptions of risk in utility stocks. Third, Mr. Woodard's risk-free rate based on spot Treasury yields is unreasonable.

Q PLEASE EXPLAIN WHY MR. WOODARD'S USE OF 10-YEAR TREASURY YIELDS TO CALCULATE THE MRP IS TROUBLESOME CONSIDERING HE INCORPORATES A 30-YEAR TREASURY YIELD IN THE CAPM FORMULA.

A Mr. Woodard's approach introduces a mismatch that creates internal inconsistency in his CAPM analysis. By calculating the historical MRP using the yield on 10-year Treasury bonds, but then applying it to a current 30-year Treasury bond yield within the CAPM formula, he mixes two fundamentally different benchmarks. Ten-year Treasury yields are historically lower and less volatile compared to 30-year Treasury yields due to differences in maturity, duration, and sensitivity to interest rate movements. Consequently, his methodology artificially inflates the estimated equity cost because he applies a historically lower benchmark-based premium to a currently higher long-term yield. This mismatch distorts the CAPM result, overstating the required return and unfairly increasing costs imposed on ratepayers.

Q PLEASE DESCRIBE YOUR CONCERNS WITH MR. WOODARD'S BETA ESTIMATES.

A As I explain in my Direct Testimony because *Value Line*'s beta estimates are based on the most recent five years of historical stock returns and volatility, they are being heavily impacted by the market fallout in early 2020 as the global pandemic set in and the market reacted, with this S&P 500 falling more than 40%. For this reason, it is not reasonable to assume current beta estimates, particularly Blume-adjusted betas, such as those published by *Value Line*, are reflective of investor expectations at this time. For these reasons, the use of other measures of beta, such as the long-term average and three-year beta, is necessary to get a more robust and accurate beta estimate.

Q WHAT CONCERNS DO YOU HAVE WITH MR. WOODARD'S RISK-FREE RATE OF 4.62%?

A My concerns are two-fold. First, Mr. Woodard's risk-free rate of 4.62% exceeds the consensus forecast yield for 30-year Treasury bonds that are expected to occur during the rate effective period at the conclusion of this case. For example, in the most recent *Blue Chip Financial Forecast,* the consensus estimate of 30-year Treasury yields over the next six quarters show an expectation of falling yields to 4.4% beginning in the first quarter of 2026.

Second, I am concerned with Mr. Woodard's use of spot interest rates in his analysis. Relying on spot interest rates to estimate the cost of capital for a regulated utility is poor policy because it fails to reflect the multi-year nature of utility rates and the protracted timeline of regulatory proceedings. Spot rates capture market conditions at a single point in time, which may be atypical, volatile, or driven by short-term factors that do not persist over the effective life of rates. Utility rates, once set, often remain in place for several years and are not continuously adjusted in real-time. Furthermore, rate cases can take many months to litigate, meaning spot data used at the outset may already be stale by the time rates are implemented. A more appropriate approach incorporates averaged or forward-looking interest rates that better reflect the utility's long-term financing environment and the enduring impact of the Commission's decision. This promotes rate stability, reduces regulatory lag, and aligns with the principle of setting just and reasonable rates based on sustainable financial conditions—not momentary market fluctuations.

E. Mr. Woodard's ECAPM Studies

Q PLEASE DESCRIBE MR. WOODARD'S ECAPM ANALYSIS.

A Mr. Woodard relies on empirical tests of the traditional CAPM model to modify it in such a way to attempt to *correct* the original CAPM for some deficiencies inherent in the original model. Empirical tests show that the expected return line, or security market line, predicted by the CAPM are not as steep as the model would have us believe. In other words, the traditional CAPM understates the expected return for securities with betas less than 1, and overstates the expected return for securities with betas greater than 1. In order to correct for this empirical finding, Mr. Woodard modifies the traditional CAPM model as follows:

$$R_i = R_f + 0.75 \times B_i \times (R_m - R_f) + 0.25 \times B_m \times (R_m - R_f)$$ where:

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

Q WHAT ISSUES DO YOU TAKE WITH MR. WOODARD'S ECAPM ANALYSIS?

A The biggest issue I have with Mr. Woodard's ECAPM analysis is his use of an adjusted beta as published by *Value Line*. The weighting adjustments applied in the ECAPM are mathematically the same as adjusting beta since the inputs are all multiplicative as shown in the formula above. The result of both using adjusted betas and ECAPM is a flattening of the security market line.

The end result of using adjusted betas in the ECAPM is an expected return line that has been flattened by two adjustments, meaning the vertical intercept has been raised twice and the security market line has been flattened twice: once through the

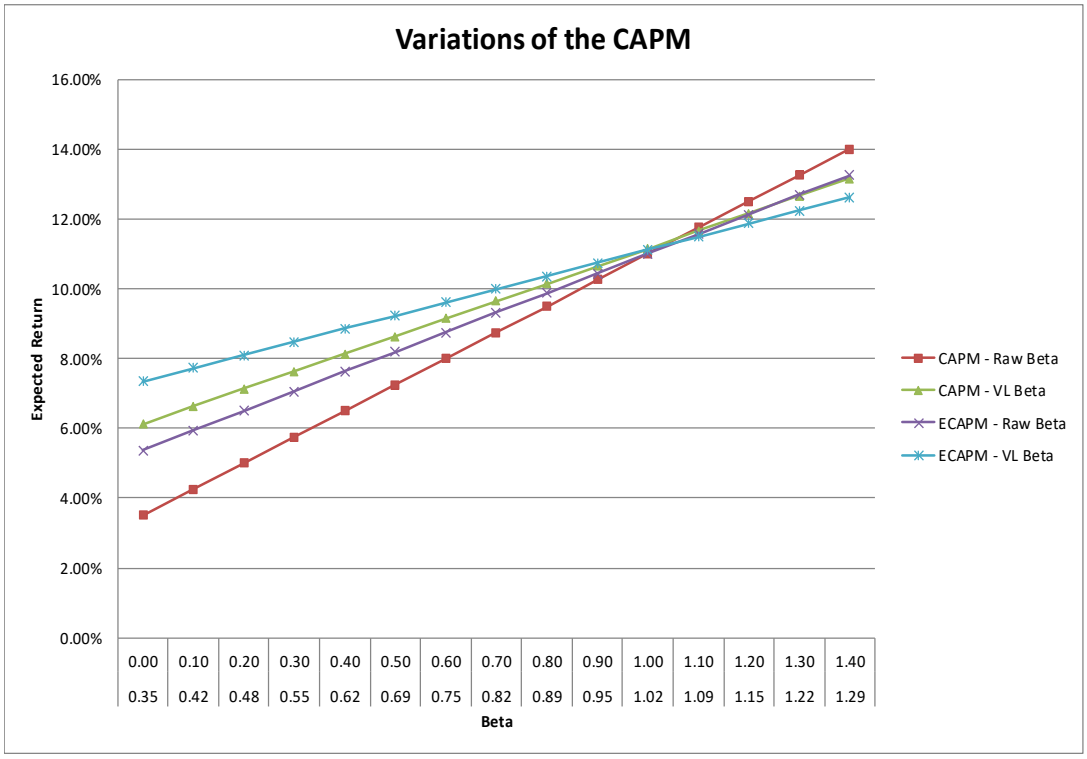
adjustments *Value Line* made to the raw beta and again by weighting the risk-adjusted MRP as Mr. Woodard has done.

In addition to the many adjustments employed by Mr. Woodard, he further increases the intercept by using a long-term 30-year Treasury yield when his MRP is measured over a shorter 10-year Treasury yield.

Q CAN YOU DEMONSTRATE THE EFFECT VARIOUS ADJUSTMENTS SUCH AS VALUE LINE BETAS AND THE ECAPM HAVE ON THE SECURITY MARKET LINE?

A Yes. The ECAPM with adjusted betas has the effect of increasing CAPM return estimates for companies with betas less than 1 and decreasing the CAPM return estimates for companies with betas greater than 1. I have modeled the expected return line resulting from the application of the various forms of the CAPM/ECAPM below in Figure CCW-1.

FIGURE CCW-1



Along the horizontal axis in Figure CCW-1, I have provided the raw unadjusted beta (top row) and the corresponding adjusted *Value Line* beta (bottom row). As shown in this figure, the CAPM using a *Value Line* beta compared to the CAPM using an unadjusted beta shows that the *Value Line* beta raises the intercept point and flattens the slope of the security market line. As shown in the figure above, the two variations with the most similar slope are the CAPM with the *Value Line* beta, and the ECAPM with a raw beta.

This evidence shows that the ECAPM adjustment has a very similar impact on the expected return line as a *Value Line* beta. Another observation that can be made from the figure above is the magnifying effect that the ECAPM using a *Value Line* beta has on raising the vertical intercept and flattening the slope relative to all other variations. There is simply no legitimate basis to use an adjusted beta within an ECAPM because it unjustifiably alters the security market line and materially inflates a CAPM return for a company with a beta less than 1.

Q IN YOUR EXPERIENCE, IS MR. WOODARD'S PROPOSED USE OF AN ADJUSTED BETA IN AN ECAPM STUDY WIDELY ACCEPTED IN REGULATED UTILITY RATE PROCEEDINGS SUCH AS THIS?

A No. In my experience, regulatory commissions generally disregard the use of the ECAPM, particularly when an adjusted beta is used in the model. For example, the Illinois Commerce Commission ("ICC") has stated the following regarding the ECAPM:

> The Commission cannot recall a proceeding in which it relied upon the ECAPM in establishing the cost of common equity for a utility. In the instant proceeding, the record supports a finding that use of adjusted betas in the ECAPM is inappropriate. As Staff witness Ms. Freetly explained, by using adjusted betas she already effectively transformed his Traditional CAPM into an ECAPM. Therefore, including an

additional beta adjustment in the ECAPM model would result in inflated estimates of the samples' cost of common equity.[3]

Similarly, the California Public Utilities Commission has stated "We are not persuaded that ECAPM produces a result that should be considered. Electric utilities in general have low betas. Adjusting betas upward guarantees a higher ROE."[4]

Therefore, the Commission should reject Mr. Woodard's ECAPM, which as described above is based on adjusted beta estimates.

F. Mr. Woodard's Risk Premium

Q PLEASE DESCRIBE MR. WOODARD'S RISK PREMIUM METHODOLOGY.

A As shown on his Schedule AWW-D-16, Mr. Woodard estimates an ROE estimate based on the premise that equity risk premiums are inversely related to interest rates, meaning as interest rates go up the equity risk premium should decrease, and conversely, as interest rates go down, the equity risk premium should increase. Calculating the equity risk premium as the authorized ROE less the contemporaneous 30-year Treasury yield, he estimates the average equity risk premium for natural gas utilities to be approximately 5.45% over the period 1980 through 2023. He performs a linear regression using the 30-year Treasury yield as the independent variable (x-axis) and the risk premium as the dependent variable (y-axis). This model produces a regression formula, which he applies by inputting his current 30-year Treasury bond yield of 4.62%. The resulting expected equity risk premium based on these inputs is 5.90%. He then adds this estimated risk premium to spot Treasury yield of 4.62% to produce an ROE estimate of 10.53%.

[3]Illinois-American Water Company, ICC Order, Docket No. 11-0767, at page 109, (Sept. 19, 2012).

[4]https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M344/K961/344961040.PDF.

Q IS MR. WOODARD'S RISK PREMIUM METHODOLOGY REASONABLE?

A No. As an initial matter, even though his analysis is predicated on the authorized ROEs for natural gas utilities as the starting point, his result of 10.53% exceeds the highest ROE awarded to any vertically integrated electric utility since 2024. This is concerning given that vertically integrated electric utilities are generally considered riskier, and typically awarded higher ROEs, than regulated natural gas distribution utilities. Notwithstanding that observation, my main concern with Mr. Woodard's Risk Premium analysis is that his estimated equity risk premium is significantly overstated and inconsistent with his own hypothesis. For example, based on the data presented in my Direct Testimony, the average equity risk premium in 2023 and 2024 is 5.51% and 5.30%, respectively. This recent average is between 39 and 60 basis points less than the equity risk premium of 5.90% estimated by Mr. Woodard. In a report issued last year, Regulatory Research Associates (a division of S&P Global) discussed the equity risk premium, as measured by the authorized ROE spread over bond yields as follows:

> However, with the uptick in interest rates since 2020, the spread has begun to narrow, falling to around 550 basis points in 2023. With the myriad factors putting upward pressure on customer bills, the spread may continue to narrow as regulators may become more reluctant to raise authorized returns.[5]

As indicated by the data, the average Treasury yield in 2023 and 2024 was 4.09% and 4.40%, respectively. The average equity risk premium over Treasury yields over those two years were 5.51% and 5.30%, respectively. Mr. Woodard assumed a 30-year Treasury yield of 4.62%. To be consistent with Mr. Woodard's inverse relationship hypothesis, the equity risk premiums should be less than the equity risk premiums in the range of 5.51% and 5.30% since interest rates assumed by

[5]RRA, Major energy rate case decisions in the U.S. January-December 2023 Quarterly update on decided rate cases, February 6, 2024. (Emphasis Added).

Mr. Woodard are higher than the interest rates realized over 2023 and 2024. However, Mr. Woodard's estimated equity risk premium of 5.90%, representing an increase of 39 to 60 basis points relative to the 2023 and 2024 equity risk premiums. Notably, the year-to-date average authorized ROE for vertically integrated electric utilities is 9.76%, a decline from 9.84% in 2024.

Importantly, it is a clear indication that Mr. Woodard's Risk Premium method is unreliable given his model produces an ROE estimate that significantly exceeds the recent ROEs awarded to other regulated utilities. Further, given Mr. Woodard's estimates of the equity risk premium are inconsistent with the inverse relationship he asserts is present, Mr. Woodard's Risk Premium analysis should be given little weight.

G. Mr. Woodard's Flotation Cost Adjustment

Q PLEASE DESCRIBE THE FLOTATION COST ADJUSTMENT PROPOSED BY MR. WOODARD.

A Mr. Woodard proposes to recover flotation costs by either (1) adding 13 basis points to his recommended ROE, or (2) grossing up the equity layer in the capital structure by 3.50% of the book value of common equity, equivalent to approximately $70.2 million. He argues that because common equity is perpetual, these costs cannot be amortized over a finite term like debt issuance costs and must instead be embedded permanently in rates.

Q ARE EITHER OF MR. WOODARD'S PROPOSALS FOR RECOVERING FLOTATION COSTS REASONABLE?

A No, Mr. Woodard's proposals to add 13 basis points to the ROE or gross up the equity layer by $70.2 million for flotation costs are unreasonable for three reasons. First, Spire

Missouri's $1.96 billion equity balance includes a $210 million goodwill asset, stemming from the acquisition of Missouri Gas Energy in 2013. Goodwill, an intangible asset, does not contribute to utility service or generate cash flow. In other words, goodwill is not a used and useful asset and provides zero benefits or services to ratepayers.

Second, 56.6% of Spire Missouri's equity ($1.11 billion of $1.96 billion) is retained earnings, which incur no flotation costs. Mr. Woodard's 3.50% flotation cost rate applied to the entire equity balance overstates costs by including retained earnings.

Third, Mr. Woodard does not clarify whether Spire Inc.'s equity contributions to Spire Missouri are funded by equity or debt. Since 2020, Spire Inc. has raised approximately $1.633 billion in net new debt versus $423 million in equity, suggesting some contributions may be debt-funded.

For these reasons, Mr. Woodard's proposal to recover flotation costs are unwarranted and should be rejected.

H. Mr. Woodard's Recommended Capital Structure

Q WHAT CAPITAL STRUCTURE IS THE COMPANY PROPOSING IN THIS CASE?

A Based on the testimony and recommendations of Mr. Woodard, the Company is requesting a capital structure consisting of 55.0% common equity and 45.0% long-term debt. This is a significant increase in the equity layer relative to how the Company is currently capitalized, which is approximately 53.2% (including the goodwill asset on the balance sheet).

Q WHAT IS THE RATIONALE FOR MR. WOODARD'S RECOMMENDATION THAT THE COMPANY BE AWARDED AN EQUITY RATIO OF 55.0%?

A Mr. Woodard recommends a 55.0% equity ratio based on Spire Missouri's historical capital structure and his view that this level supports financial resiliency, credit quality, and stable access to capital. He notes that the Company's average equity ratio over the past 10 years was 56.0%, with more recent averages of 53.9% (5-year) and 52.9% (3-year). Although the actual equity ratio as of September 30, 2024, was 52.1%, he proposes increasing it to 55.0%, citing deterioration in credit metrics—particularly a decline in the utility's Funds From Operations to Debt ("FFO to Debt") ratio following prior rate orders and deferred gas cost recovery. He asserts that restoring the equity layer to 55.0% will help repair these metrics and maintain investment-grade credit ratings, which he claims are necessary for attracting capital on reasonable terms.

Q DO YOU AGREE WITH MR. WOODARD'S ASSERTIONS?

A No, I do not. As an initial matter, Mr. Woodard assesses the Company's capital structure post-acquisition beginning in 2014. As discussed above, subsequent to the closure of the Spire Inc.'s acquisition of the Company, a $210 million goodwill asset was recorded on Spire Missouri's balance sheet and remains there today. Goodwill is an intangible asset that provides no value or benefit to ratepayers.

Second, there are significant benefits to utilities in Senate Bill 4 ("SB 4") that was passed and signed into law in Missouri earlier this year, which will enhance cash flows and reduce the notion of regulatory lag for Spire Missouri. For example, SB 4 authorizes utilities to use projected costs and revenues for a forthcoming 12-month period when setting rates (i.e., a projected test year), rather than relying solely on

historical data. This provision enables utilities to proactively recover anticipated expenses, such as those associated with infrastructure investments, potentially leading to more stable financial planning. However, it may also result in higher rates for consumers if projections overestimate future costs. An excessive equity ratio on top of projected test years will unnecessarily burden ratepayers.

Finally, Mr. Woodard understates the Company's credit metrics based on his recommendations, specifically, the FFO to Debt ratio.

Q PLEASE DESCRIBE HOW MR. WOODARD ESTIMATES THE COMPANY'S FFO TO DEBT METRIC BASED ON HIS RECOMMENDATIONS.

A Mr. Woodard estimates Spire Missouri's FFO to Debt ratio using a simplified formula based on three key cost-of-capital inputs: the earned ROE, the equity ratio, and the depreciation rate. He expresses the FFO as the sum of (1) the ROE multiplied by the equity percentage and (2) the depreciation rate multiplied by the total capitalization. This result is then divided by the debt percentage to calculate the FFO to Debt ratio.

Mathematically, his derivation can be summarized as:

FFO to Debt = (ROE × Equity%) + Depreciation% ÷ Debt%

Using his proposed equity ratio of 55% and recommended ROE of 10.50%, along with an assumed depreciation rate of 3.35%, Mr. Woodard derives a forward-looking FFO to Debt ratio consistent with the target ranges used by rating agencies—specifically, 17% to 18% per S&P and 18% to 22% per Moody's. He argues that this level of FFO to Debt is necessary to maintain Spire Missouri's investment-grade credit ratings and support its access to capital.

Q WHY DO YOU BELIEVE HE UNDERSTATED THE COMPANY'S CREDIT METRICS?

A Mr. Woodard misrepresents the amount of depreciation that would be represented in the Company's FFO. For example, applying Mr. Woodard's 3.35% depreciation rate to the Company's proposed rate base of $4.386 billion generates $146.9 million in depreciation expense. However, the Company is requesting approximately $201.4 million in depreciation expense on a consolidated basis, not including amortization. Mr. Woodard's generic application of 3.35% understates depreciation by $54.5 million. He further understates the FFO by not including amortization. Consolidated amortization expense would provide for an additional $26.8 million to the Company's FFO. Mr. Woodard under-represents FFO by at least $81.3 million under his assumptions.

Q HAVE YOU ESTIMATED THE COMPANY'S FFO TO DEBT RATIO USING MR. WOODARD'S RECOMMENDATIONS?

A Yes, I have. To provide clarity on the FFO to Debt metric, I will present the components in dollar figures. Mathematically, it can be summarized as follows:

FFO/Debt = [(ROE% × Equity% × Rate Base) + Depr + Amort] ÷ (Debt% × Rate Base).

Under Mr. Woodard's recommended ROE and equity ratio, the net income generated using the Company's rate base of $4.386 billion is $253.3 million.[6] Adding depreciation expense of $201.4 million and amortization expense of $26.8 million to net income produces a total FFO of $481.5 million. The amount of debt supporting rate base under Mr. Woodard's recommendation is $1.97 billion. Therefore, the FFO to Debt metric under Mr. Woodard's recommendations is actually 24.4% compared to the

[6]Net Income = ROE% × Equity% × Rate Base = 10.5% × 55.0% × $4.386 billion = $253.3 million.

20.28% figure supported by Mr. Woodard. An FFO to Debt of 24.4% exceeds any projected estimate by S&P or Moody's and is above the upgrade thresholds at the ratings agencies by a significant margin. Mr. Woodard's analysis is biased and produces excessive, unreasonable results.

Q HAVE YOU ESTIMATED THE COMPANY'S FFO TO DEBT RATIO USING YOUR RECOMMENDATIONS?

A Yes, I have. Using the same methodology at my recommended ROE of 9.45% and equity ratio of 53.2%, the Company's expected FFO to Debt ratio is 21.86%. Notably, this level of FFO to Debt is higher than what Mr. Woodard presents his recommendations to produce. Given Mr. Woodard asserts that an FFO to Debt ratio of 20.28% is sufficient, he would find that an FFO to Debt ratio of 21.86% is more than sufficient, is supportive of the Company's credit, and would provide it access to capital at reasonable terms. Mr. Woodard's recommendations overstate the Company's cost of capital and unnecessarily increases the financial burden on all ratepayers.

Q DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A Yes, it does.

532104