Exhibit No:	
Issue:	**Class Cost of Service and Rate Design**
Witness:	**Timothy S. Lyons**
Type of Exhibit:	**Surrebuttal Testimony**
Sponsoring Party:	**Spire Missouri, Inc.**
Case No.:	**GR-2021-0108**
Date Testimony Prepared:	**July 14, 2021**

SPIRE MISSOURI, INC.

CASE NO. GR-2021-0108

SURREBUTTAL TESTIMONY

OF

TIMOTHY S. LYONS

July 14, 2021

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SURREBUTTAL TESTIMONY OF TIMOTHY S. LYONS

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS ADDRESS.

A. My name is Timothy S. Lyons. I am a Partner at ScottMadden, Inc. My business address is 1900 West Park Drive, Suite 250, Westborough, Massachusetts 01581.

Q. ARE YOU THE SAME TIMOTHY S. LYONS WHO PREVIOUSLY SPONSORED DIRECT AND REBUTTAL TESTIMONIES RELATED TO CASH WORKING CAPITAL, CLASS COST OF SERVICE STUDY AND RATE DESIGN IN THIS PROCEEDING?

A. Yes, I am. I sponsored direct testimony ("Direct Testimony") and rebuttal testimony ("Rebuttal Testimony") before the Missouri Public Service Commission (the "Commission") on behalf of Spire Missouri, Inc. ("Spire" or the "Company") related to the Company's cash working capital requirement. I also provided rebuttal testimony related to the Company's Class Cost of Service ("CCOS") study and rate design.

II. PURPOSE AND OVERVIEW OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

A. The purpose of this surrebuttal testimony ("Surrebuttal Testimony") is to address specific concerns and recommendations related to the Company's class cost of service study and rate design by Witnesses Charles T. Poston and Robin Kliethermes on behalf of the Staff of the Commission ("Staff"), Witness Brian C. Collins on behalf of Missouri Industrial Energy Consumers and Vicinity Energy

Kansas City, Inc. ("MIEC"), and Witnesses Geoff Marke and Lena M. Mantle on behalf of the Office of the Public Counsel ("OPC"),

Q. HAVE YOU PREPARED SCHEDULES SUPPORTING YOUR TESTIMONY?

A. Yes, I have prepared Class Cost of Service Studies for Spire East and Spire West as Schedules TSL-SR1 and TSL-SR2. Due to the voluminous nature of these studies, they are being made available to the parties via ProofPoint. A copy of my schedules are also being mailed to the Commission's data center.

III. RESPONSE TO STAFF WITNESS POSTON

Q. PLEASE SUMMARIZE STAFF WITNESS POSTON'S RECOMMENDATIONS ADDRESSED IN YOUR TESTIMONY.

A. Staff Witness Poston expressed two concerns related to the cost allocators used in the Company's CCOS study.[1] First, Staff discovered that the cost allocators for meter, meter installation, regulator and service costs were incorrectly imported into the spreadsheet used to derive the Company's cost allocators. Second, Staff discovered errors in the study used to derive the Company's mains allocator. Specifically, Staff found that approximately 234 miles of mains installed between 1900 and 1909 were excluded from the Company's study. In addition, the length of 20-inch cast iron main included in the study was not supported by the data.

As a result of these concerns, Staff Witness Poston recommends that the results of the Company's class cost of service study should not be relied upon to make changes in the rate design.[2]

[1] Rebuttal Testimony of Charles T. Poston, PE, p. 2-4.
[2] Ibid., p. 4.

Q. WHAT IS THE COMPANY'S RESPONSE TO STAFF WITNESS POSTON'S RECOMMENDATIONS?

A. As an initial matter, the Company's recommendations in rebuttal testimony were not based on the Company's filed CCOS study. Instead, the Company's recommendations were based on Staff's CCOS study methodology and data, revised to reflect the Company's proposed mains allocator.

The Company's proposed mains allocator described in rebuttal testimony does not contain the errors referenced by Staff Witness Poston. Specifically, the Company's proposed mains allocator described in rebuttal testimony includes all cast iron mains installation, including those installed between 1900 and 1909. Regarding Staff's concerns related to the meter and service-related cost allocators, the Company provided Staff with an updated CCOS study on April 14 that included corrections to the meter and service-related cost allocators, as noted by Staff Witness Poston. The Company is not aware of any other concerns regarding these cost allocators.

IV. RESPONSE TO STAFF WITNESS KLIETHERMES

Q. HAS THE COMPANY EVALUATED CHANGES TO STAFF'S DEMAND ALLOCATOR DESCRIBED IN THE CORRECTED DIRECT TESTIMONY OF STAFF WITNESS ROBIN KLIETHERMES?

A. Yes. As noted in rebuttal testimony, the Company was not able to incorporate into its rebuttal testimony a review and evaluation of the corrections to Staff's demand allocator due to time limitations. However, the Company has since completed its

review and evaluation of the corrections to Staff's demand allocator. The results of the review and evaluation are incorporated into this surrebuttal testimony.

Q. PLEASE SUMMARIZE STAFF'S CORRECTIONS TO ITS DEMAND ALLOCATOR DESCRIBED IN THE CORRECTED DIRECT TESTIMONY OF STAFF WITNESS KLIETHERMES.

A. Staff's corrections to its demand allocator (or 'Max HDD Usage' allocator) are related to derivation of the class peak demands used to derive the demand allocator.[3] Staff Witness Kliethermes explains that the class peak demands used to derive the demand allocator were based on inconsistent methodologies. Class peak demands for certain "weather-normalized" rate schedules (i.e., Residential, Small General Service and Large General Service) were based on the results of regression analysis used to weather-normalize actual usage. By comparison, class peak demands for certain "non-weather-normalized" rate schedules (i.e., Transportation, Interruptible, and Large Volume) were based on actual usage.[4]

To correct for this inconsistency, Staff recalculated the class demands for each weather normalized rate class by applying the weather adjustment to usage per day per billing cycle and then summing usage per day per billing cycle for each month. Except for the weather adjustment, the calculation is consistent with the calculation of class demands for the non-weather normalized rate classes.[5]

Q. WHAT ARE THE RESULTS OF STAFF'S CORRECTION?

A. The results are shown in Figures 1 and 2 (below).

[3] Corrected Direct Testimony of Robin Kliethermes, p. 1.
[4] Ibid., p. 5-6.
[5] Ibid., p. 6.

Figure 1: Staff's Demand Allocators (Spire East)

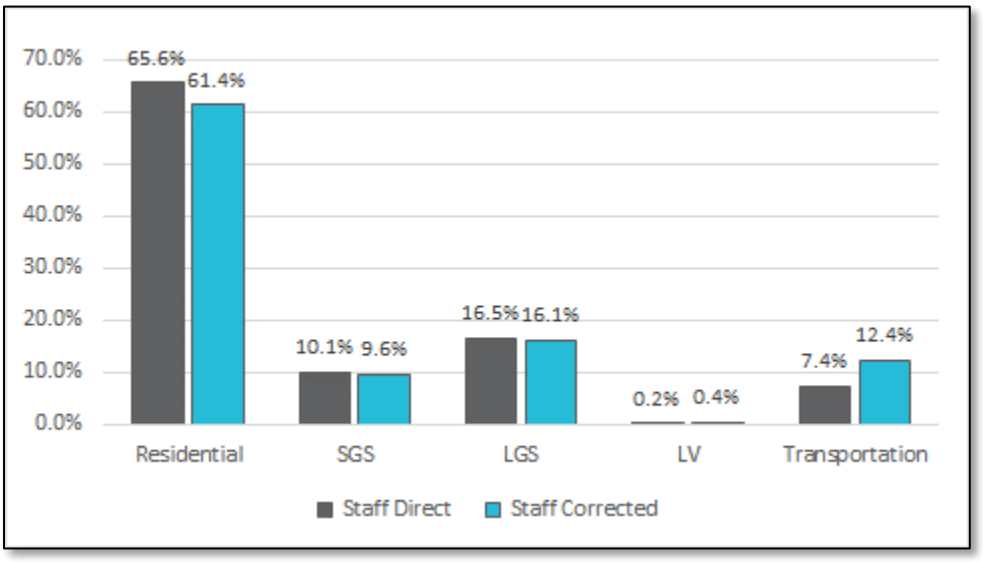

Figure 1 shows that Staff's corrections have reduced Spire East's residential demand allocator from 65.6 percent in direct testimony to 61.4 percent in corrected direct testimony. In addition, Figure 1 shows that Staff's corrections have increased the transportation demand allocator from 7.4 percent in direct testimony to 12.4 percent in corrected direct testimony.

Figure 2: Staff's Demand Allocators (Spire West)

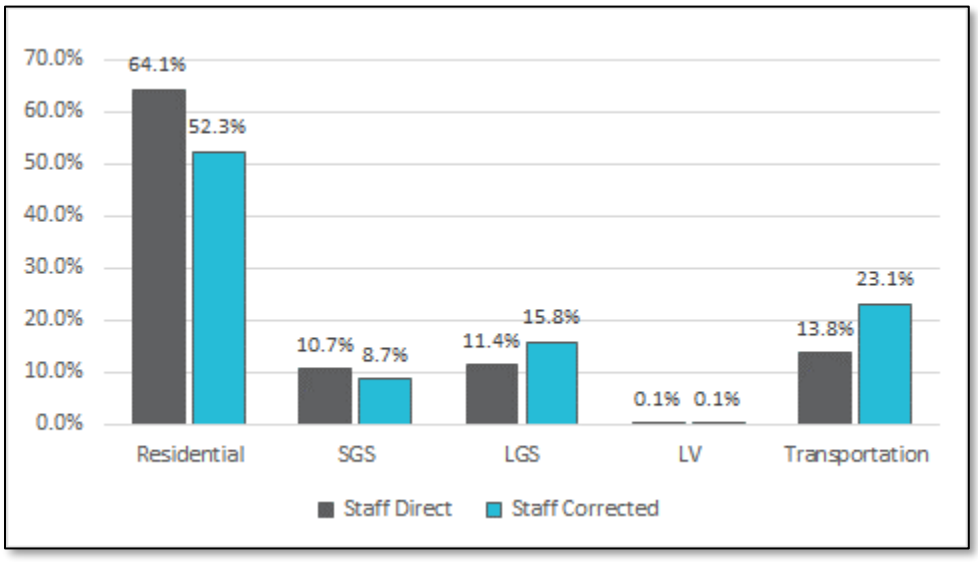

Figure 2 shows that Staff's corrections have reduced Spire West's residential demand allocator from 64.1 percent in direct testimony to 52.3 percent in corrected direct testimony. In addition, Figure 2 shows that Staff's corrections have increased the transportation demand allocator from 13.8 percent in direct testimony to 23.1 percent in corrected direct testimony.

Q. WHAT IS THE COMPANY'S RESPONSE TO STAFF'S CORRECTED DEMAND ALLOCATOR?

A. The Company has concerns with Staff's approach since it does not reflect the design of the Company's investment in its distribution mains. Specifically, distribution mains are designed to (1) provide customer access to the natural gas system and (2) meet customer demands on the design day. Related to the latter, Staff's corrected demand allocator is not based on customer demands on the design day and thus does not reflect the design of the Company's investment in its distribution system.

The Company believes a better approach is to develop a demand allocator that reflects customer demands on the design day. This approach is consistent with the design of the Company's investment in its distribution mains – and is a recognized approach in the industry.

Q. WHAT IS THE COMPANY'S RECOMMENDATION REGARDING THE DEMAND ALLOCATOR?

A. The Company proposes to use a demand allocator based on the Coincident Demand or Peak Responsibility method. It is one of the methods recognized by NARUC in allocating demand costs.[6] The proposed demand allocator reflects each rate classes' responsibility to the peak day or design day demands of the system – and is consistent with the allocator used in the Company's most recent rate case proceeding (Case No. GR-2017-0215 and GR-2017-0216).

Derivation of the Company's proposed demand allocator consisted of four steps. First, heat use per heating degree day per customer was derived based on the results of a regression analysis for each rate class of heat use per heating degree day per customer as a function of heating degree days. The regression analysis produced a strong R-squared, which measures how much variation in a dependent variable (in this case heat use per customer) can be explained by an independent variable (in this case heating degree days). Heat use per customer was calculated as the difference between actual use per customer and base use per customer, where base use per customer was the lowest average use of two consecutive months during July through September.

[6] NARUC Gas Distribution Rate Design Manual. p. 27

The second step involved applying heat use per degree per customer to the Company's design day heating degree days ("HDD") of 75.60 HDD for Spire East and 81.08 HDD for Spire West to derive design day heating use per customer. The Company uses design day heating degree days of 75.60 HDD for Spire East and 81.08 HDD for Spire West in planning its distribution system.

For the third step, the design day heating use per customer derived in the previous step was added to base use per customer to calculate total design day use per customer.

The final step was to multiply the number of customers for each class in the month of the design day by the design day use per customer for each class to calculate total design day use by class.

Q. HOW DOES THE COMPANY'S DEMAND ALLOCATOR COMPARE TO STAFF'S DEMAND ALLOCATOR?

A. The Company's demand allocator is generally between Staff's demand allocator filed in direct testimony and Staff's demand allocator filed in corrected direct testimony, as shown in Figures 3 and 4 (below).

Figure 3: Spire's Demand Allocator (Spire East)

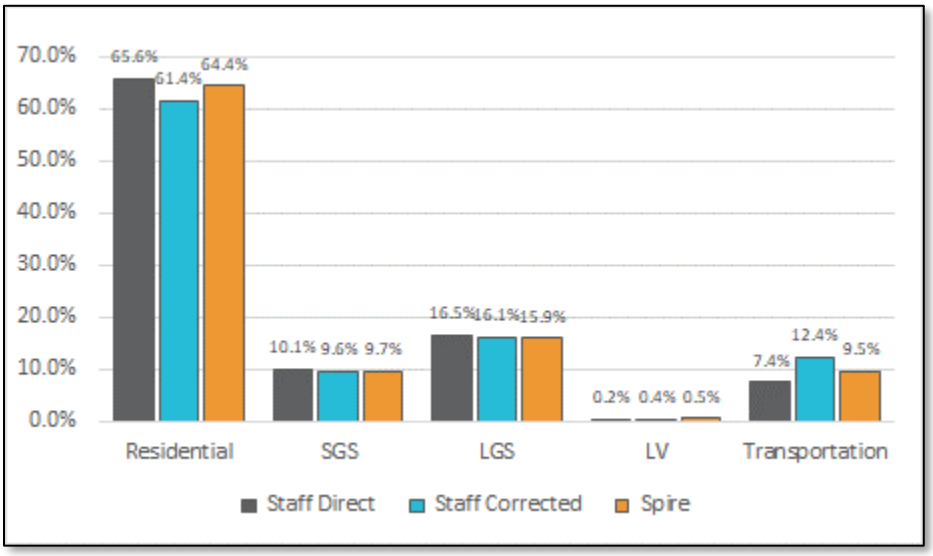

Figure 3 shows the Company's residential demand allocator for Spire East is 64.4 percent as compared to Staff's demand allocator of 65.6 percent in direct testimony and 61.4 percent in corrected direct testimony. Figure 3 also shows the Company's transportation demand allocator for Spire East of 9.5 percent as compared to Staff's demand allocator of 7.4 percent in direct testimony and 12.4 percent in corrected direct testimony.

Figure 4: Peak Demand Allocators' Comparison (Spire West)

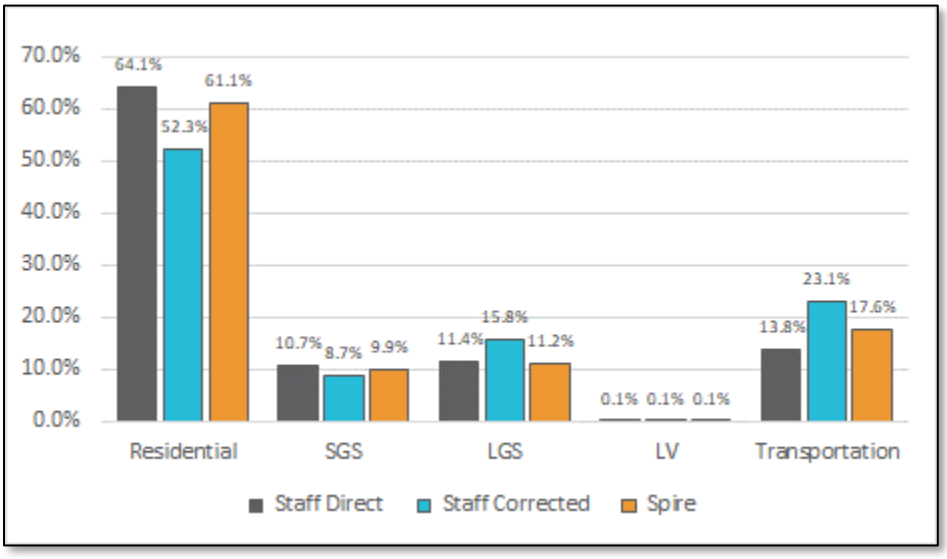

Figure 4 shows the Company's residential demand allocator for Spire West is 61.1 percent as compared to Staff's demand allocator of 64.1 percent in direct testimony and 52.3 percent in corrected direct testimony. Figure 4 also shows the Company's transportation demand allocator for Spire West of 17.6 percent as compared to Staff's demand allocator of 13.8 percent in direct testimony and 23.1 percent in corrected direct testimony.

The Company prepared an updated CCOS study for this Surrebuttal Testimony that reflects the Company's proposed demand allocator. The updated CCOS study is based on the CCOS study filed with its rebuttal testimony, adjusted to reflect the Company's proposed demand allocator and changes to the income tax allocator described below.

V. RESPONSE TO MIEC WITNESS COLLINS

Q. PLEASE SUMMARIZE MIEC WITNESS COLLINS RECOMMENDATION THAT IS ADDRESSED IN YOUR TESTIMONY.

A. MIEC Witness Collins states that Staff has incorrectly allocated income taxes to the rate classes in both Spire East and Spire West and that the allocation method has a significant impact on calculation of the class cost of service.[7] Specifically, MIEC states that Staff allocated income taxes to the rate classes based on their share of income taxes at present rates. However, the transportation class rate of return is presently higher than the system average rate of return, thus the allocation of income taxes at the current rate of return is higher than it would be at the system average rate of return.

MIEC Witness Collins also states that Staff's allocation of underground storage costs, gas inventory costs, and propane inventory costs to transportation customers should be rejected as Spire does not incur these costs in providing distribution delivery service to Transportation customers, and that these costs are incurred entirely for the benefit of sales customers that rely on Spire for the gas supply service.[8]

Q. DOES THE COMPANY AGREE WITH MIEC COLLINS RECOMMENDATION ON THE ALLOCATION OF INCOME TAXES?

A. Yes. The Company agrees with MIEC Witness Collins that the allocation of income taxes at rates under equalized rates of return should reflect the class net income

[7] Rebuttal Testimony of MIEC Witness Brian C. Collins, p. 3-6
[8] Id., p. 3, 8-12

under equalized rates of return. In other words, each rate classes income tax responsibility should be based on their respective net income.

Q. DOES THE COMPANY AGREE WITH MIEC COLLINS RECOMMENDATION ON THE ALLOCATION OF UNDERGROUND STORAGE COSTS, GAS INVENTORY COSTS AND PROPANE INVENTORY COSTS TO TRANSPORTATION CUSTOMERS?

A. Yes. The Company agrees with MIEC Witness Collins that the underground storage costs, gas inventory costs and propane inventory costs should not be allocated to transportation customers as these costs are not incurred to provide distribution delivery service to Transportation customers. This approach is consistent with the methodology used in the Company's most recent rate case proceeding (Case No. GR-2017-0215 and GR-2017-0216).

Q. HAS THE COMPANY PREPARED AN UPDATED CCOS STUDY THAT REFLECTS THESE CHANGES?

A. Yes. The Company prepared an updated CCOS study for this Surrebuttal Testimony that reflects a revised income tax allocator and a revised storage cost, gas inventory cost and propane inventory cost allocator. The updated CCOS study is based on the CCOS study filed with its rebuttal testimony, adjusted to reflect the revised income tax allocator, and revised storage cost, gas inventory cost and propane inventory cost allocators, and the revised demand allocator described above.

VI. RESPONSE TO OPC WITNESS MARKE

Q. PLEASE SUMMARIZE OPC WITNESS MARKE'S RECOMMENDATION THAT IS ADDRESSED IN YOUR TESTIMONY.

A. While stating that the recommendation is subject to further examination based on the class cost of service studies and stakeholder comments in rebuttal testimony, OPC Witness Marke provides a "default" recommendation that Spire West retain its residential customer charge at $20.00 and Spire East reduce its residential customer charge by $2.00 to $20.00 to match Spire West.[9]

Q. WHAT IS THE COMPANY'S RESPONSE TO OPC'S RECOMMENDATION?

A. The Company recommends increasing Spire East and Spire West's residential customer charge to $22.50 per month. The Company's recommendation is based on the updated CCOS study prepared for this Surrebuttal Testimony. The updated CCOS study shows Spire East and Spire West's customer cost per month exceeds $22.50, as shown in Figure 5 (below).

Figure 5: Residential Customer Charge Analysis

Customer Charge Analysis	Proposed Charge	Current Charge	Customer Cost Per Month
Spire East	$ 22.50	$ 22.00	$ 33.09
Spire West	$ 22.50	$ 20.00	$ 28.51

Specifically, the Figure shows Spire East and Spire West's residential customer cost per month is $33.09 and $28.51, respectively.

[9] Rebuttal Testimony of Geoff Marke, p. 13

The customer cost per month is based on costs classified as customer-related in the CCOS study, such as meter and service-related expenses, customer account expenses, and customer service and sales expenses. The customer cost per month also includes the customer portion of the Company's investment in distribution mains.

VII. RESPONSE TO OPC WITNESS MANTLE

Q. PLEASE SUMMARIZE OPC WITNESS MANTLE'S RECOMMENDATION THAT IS ADDRESSED IN YOUR SURREBUTTAL TESTIMONY.

A. OPC Witness Mantle does not recommend approval of the Revenue Normalization Adjustment ("RNA") recommended by Staff and the Company. Among other reasons, OPC Witness Mantle suggests the current Weather Normalization Adjustment Rider ("WNAR") adjusts for the difference between actual and normal weather and some conservation.[10]

To demonstrate this point, OPC Witness Mantle in direct testimony relies on a hypothetical relationship between consumption (or usage) and Heating Degree Days ("HDD"), as illustrated in Figure 6 (below). Figure 6 has been reproduced from OPC Witness Mantle's testimony.[11]

[10] Rebuttal Testimony of Lena M. Mantle, p. 2, 12-31
[11] Testimony of OPC Witness Mantle, Figure 4 on p. 10.

Figure 6: Residential Customer Charge Analysis

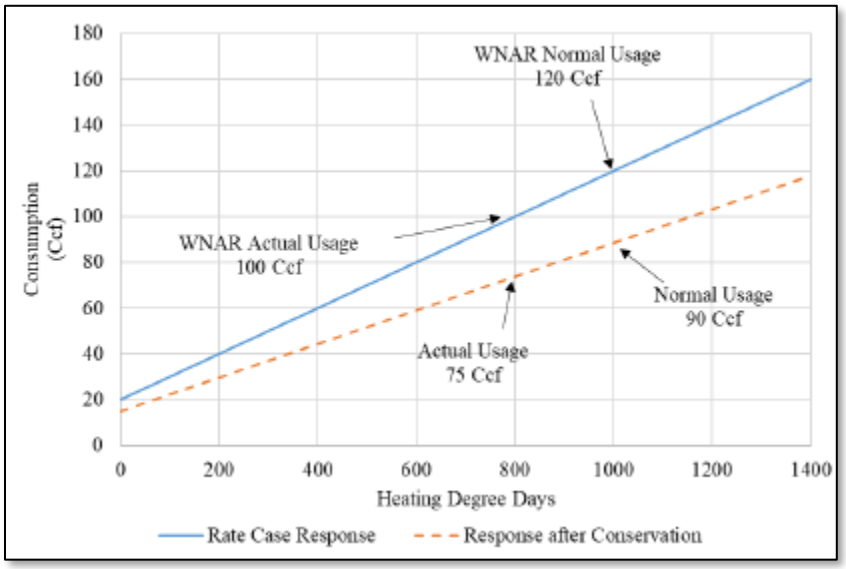

Figure 6 depicts two hypothetical relationships between usage and HDD: (1) a relationship before conservation – depicted by the blue or solid line; and (2) a relationship after conservation – depicted by the red or dotted line. The relationship before conservation shows that warmer than normal weather represented by a decline from 1,000 HDD to 800 HDD results in a usage decline of 20 CCF. The relationship after conservation shows that the decline from 1,000 HDD to 800 HDD results in a usage decline of only 15 CCF. OPC Witness Mantle contends that with conservation the Company's actual weather adjustment is only 15 CCF but the WNAR provides the Company with a weather adjustment of 20 CCF. OPC contends the difference – 5 CCF – reflects an adjustment for "some" conservation.

Q. DOES THE COMPANY AGREE THAT THE WNAR ADJUSTS REVENUES FOR CONSERVATION?

A. No. The WNAR does not adjust revenues for conservation. OPC's conclusion does not reflect how rates are established nor how changes in usage impact the Company's recovery of the Commission-approved revenue requirement.

As an initial matter, rates are set based on a Commission-approved revenue requirement and an assumed level of usage – or normal usage. To the extent that actual usage is more than normal usage, then rates will recover more than the Commission-approved revenue requirement. Conversely, to the extent that actual usage is less than normal usage, then rates will recover less than the Commission-approved revenue requirement.

Utilizing OPC's illustration, the Company's rates would be set in this example to recover the Commission-approved revenue requirement based on normal use of 120 CCF, as shown in Figure 6 (above). To the extent that actual use is more than 120 CCF, then the rates would recover more than the Commission-approved revenue requirement. To the extent that actual use is less than 120 CCF, then the rates would recover less than the Commission-approved revenue requirement.

The WNAR helps minimize variations due to weather through a usage and revenue adjustment that reflects the relative differences between actual weather and normal weather (as measured in HDD). To the extent that actual weather is colder than normal, then the WNAR provides for a credit to customers that reflects the revenue gained by the Company as a result of colder weather. To the extent that actual weather is warmer than normal, then the WNAR provides for a surcharge to customers to recover the revenue loss by the Company as a result of warmer weather.

Utilizing OPC's illustration, to the extent that actual weather is warmer than normal (where actual weather is 800 HDD and normal weather is 1,000 HDD), then the WNAR provides for a surcharge to customers to reflect the revenue loss associated with the warmer weather; i.e., the revenues associated with the 20 CCF depicted in Figure 6 (above).

However, the WNAR adjusts revenues for only variations in weather and does not adjust revenues for the revenue loss associated with conservation. This can be demonstrated by once again utilizing OPC's illustration.

To the extent that actual use is 75 CCF, as depicted in Figure 6, then the difference between actual usage and normal usage is 45 CCF.

The WNAR offsets some of the difference of 45 CCF, as noted by OPC Witness Mantle. Specifically, the WNAR provides for a revenue adjustment corresponding to 20 CCF related to the warmer than normal usage, as shown in Figure 6. However, there is still a difference of 25 CCF. This represents the revenue loss associated with conversation, none of which is recovered through the WNAR.

Specifically, OPC's illustration demonstrates that not only does the WNAR not recover the revenue loss associated with conservation but even with the WNAR adjustment the Company would recover less than 80.0 percent of its Commission-approved revenue requirement.[12]

[12] Actual recovery is 79.2 percent, which is calculated as actual sales of 75 CCF, adjusted to reflect the WNAR adjustment of 20 CCF, or 95 CCF, divided by normal usage of 120 CCF.

Q. DOES THE PROPOSED RNA ADJUST REVENUES TO REFLECT REVENUE FLUCTUATIONS DUE TO WEATHER AND CONSERVATION?

A. Yes. The RNA is designed to insulate the Company from certain revenue fluctuations due to weather and conservation by residential and SGS customers. Specifically, the RNA is designed as a two-block rate mechanism, with Block 1 representing monthly customer usage and revenues up to a set threshold ("Breakpoint") and Block 2 representing the remaining monthly customer usage and revenues. The RNA is designed to expose the Company in Block 1 to the benefits or risks of variations between actual and normal usage and revenues and insulate the Company in Block 2 to the benefits or risks of variations between actual and normal usage and revenues.

The benefits of the RNA include: (1) to limit the degree to which customers collectively under- or over-contribute to the Company's revenue requirement; and (2) to pass along to customers the benefits (or detriments) or increases (or decreases) in usage associated with customer growth. In addition, since the RNA identifies changes between actual and normal usage, it eliminates the need to calculate "deemed savings" for purposes of identifying customer savings related to conservation efforts

VIII. CONCLUSION

Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Spire Missouri Inc.'s Request for Authority to Implement a General Rate Increase for Natural Gas Service Provided in the Company's Missouri Service Areas	)))))	File No. GR-2021-0108

AFFIDAVIT

STATE OF VERMONT	)	
COUNTY OF CHITTENDEN	)	SS.
	)	

Timothy S. Lyons, of lawful age, being first duly sworn, deposes and states:

1. My name is Timothy S. Lyons. I am a Partner at ScottMadden, Inc. My business address is 1900 West Park Drive, Suite 250, Westborough, Massachusetts 01581.

2. Attached hereto and made a part hereof for all purposes is my rebuttal testimony on behalf of Spire Missouri, Inc.

3. Under penalty of perjury, I declare that my answers to the questions contained in the foregoing surrebuttal testimony are true and correct to the best of my knowledge and belief.

/s/ Timothy Lyons
Timothy S. Lyons

July 14, 2021
Date