

# Exhibit No. 138

*Exhibit No.:*  
*Issue(s):* *Weather, Weather  
Normalization  
Adjustment Rider*  
*Witness:* *Michael L. Stahlman*  
*Sponsoring Party:* *MoPSC Staff*  
*Type of Exhibit:* *Surrebuttal Testimony*  
*Case No.:* *GR-2021-0108*  
*Date Testimony Prepared:* *July 14, 2021*

**MISSOURI PUBLIC SERVICE COMMISSION**

**INDUSTRY ANALYSIS DIVISION**

**TARIFF/RATE DESIGN DEPARTMENT**

**SURREBUTTAL TESTIMONY**

**OF**

**MICHAEL L. STAHLMAN**

**SPIRE MISSOURI INC., d/b/a SPIRE**

**SPIRE EAST and SPIRE WEST  
GENERAL RATE CASE**

**CASE NO. GR-2021-0108**

*Jefferson City, Missouri  
July 2021*



1           A.     Yes.  Generally I do not disagree with Ms. Mueller’s discussion, but want to  
2 provide additional information so that the incorrect conclusions are not drawn.  NOAA did release  
3 its 1991-2020 climatic normals in May 2021.  These published normals are not the same as the  
4 normals used by Staff and Spire in this rate case for weather normalization.  NOAA’s published  
5 normals are a strict average of the weather on a given date; e.g. the normal high temperature of  
6 January 1 is the average of all January 1 daily high temperatures from 1991 through 2020.  This  
7 results in the smoothing of the extreme temperatures since it is unlikely that the coldest days of  
8 the year are consistently on the same calendar date.  The rank method preserves these extremes by  
9 averaging the coldest day of a given month irrespective of the calendar date.  In order to develop  
10 these normals Staff uses the serially-complete monthly temperature (“SCMT”) data series, which  
11 is an intermediate product of NOAA’s process to develop new climatic normals.

12           Q.     What was used as the 30-year period in this case?

13           A.     Both Staff and the Company used the thirty-year period that began on  
14 January 1, 1989 and ended on December 31, 2018.

15           Q.     Ms. Mueller states, “Spire would like to work with Staff on this new data  
16 set.”<sup>1</sup> How would using the new climatic normals information from NOAA impact this period for  
17 this case?

18           A.     Staff would not move the 30-year period forward since it is good academic practice  
19 to keep the period under review (the test year, beginning October 1, 2019, and ending  
20 September 30, 2020) separate from reference period (the 30-year period from January 1, 1989,  
21 through December 31, 2018).  However, NOAA would provide information about adjustments

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<sup>1</sup> Rebuttal Testimony of Alicia Mueller, p. 4, l. 6.

1 that may have happened to the weather station since 2010. These adjustments, typically fractions  
2 of a degree, are made to account for changes such as replacing the equipment or moving the  
3 location of the weather station. Staff has not yet evaluated any adjustments to the stations in this  
4 case. Additionally, the changes would likely affect both the historical period and the test period,  
5 meaning that the actual impact on the resulting weather normalization process could largely cancel  
6 out. However, Staff would be willing to have discussions with Spire.

7 **Surrebuttal of Lena M. Mantle**

8 Q. On page 13 of her rebuttal testimony, Ms. Mantle states that, “OPC is the only party  
9 that has proposed a mechanism that accounts for weather and some conservation impacts on  
10 revenues.” Do you agree?

11 A. No. Ms. Mantle makes this assertion without defining what OPC means by  
12 “conservation,” and without providing any analysis justifying her claim that there are changes  
13 other than weather or conservation within Staff’s alternative RNA defined rate blocks. At this  
14 time, Staff is the only party that has adopted a definition of “conservation” in its testimony, which  
15 was given in its CCoS Report. Furthermore, as discussed in my rebuttal testimony, it is not clear  
16 whether continuing the WNAR would account for conservation or exacerbate the difference.  
17 For instance, Ms. Mantle’s WNAR example provided in Figure 4, page 10 of her direct  
18 testimony would actually exacerbate the impact of conservation if the direction of the weather  
19 would reverse; i.e. the normal usage of 100 and 75 Ccf and actual usage of 120 and 90 Ccf on the  
20 graph. In Ms. Mantle’s graph, the size of the WNAR adjustment is larger than the actual change  
21 in usage under the conservation scenario. While this compensates the company for conservation  
22 when the customer charged a positive WNAR charge, the company credits the customer with more  
23 than the actual change in usage when the WNAR charge is negative.

1 Q. On page 22 of Ms. Mantle's Rebuttal Testimony, she says, "Computer programs  
2 can be written that quickly do the matching of actual and normal heating degree days to each  
3 billing cycle. This should have already been done with Spire's current WNAR." Has a computer  
4 program been developed that does this?

5 A. Yes. During the course of GO-2019-0058 and GO-2019-0059, I developed and  
6 provided Spire with an Excel program that does such. It requires the user to input the actual and  
7 normal heating degree days, the meter read dates, and the number of customer charges, and will  
8 provide the monthly adjustment both in terms of ccf/therms and in dollars.

9 Q. Does Spire utilize this program in its WNAR filings?

10 A. No. The typical excel files we receive from Spire are accounting entries that don't  
11 show the daily weather or meter read dates. In order to check the weather, I look at the weather  
12 values in the worksheets and see if I can come up with reasonable meter read dates for the bill  
13 cycle and check that the actual and normal weather would have the same meter read dates.

14 Q. On page 23 of Ms. Mantle's Rebuttal Testimony, she states that the determination  
15 of the ranked normal heating degree days is not a complicated process and a computer program  
16 could perform this function once a year. Do you agree?

17 A. It depends. Spire has maintained that its accountants need to determine the WNAR  
18 each month for booking purposes. However, the excel program that calculates the ranked normal  
19 heating degree days is the same program that is used to rank normal heating degree days in the  
20 course of a rate case. For the convenience of Spire, I have updated and provided this file to them  
21 at the beginning of every month since the last rate case.

1           Q.     Do you agree that it is unlikely for daily temperatures to not be recorded at St. Louis  
2 Lambert International Airport and Kansas City International Airport Weather Stations?<sup>2</sup>

3           A.     Yes. However, the Kirksville weather station was thought to be a fairly reliable  
4 weather station that had recorded weather data for multiple decades<sup>3</sup> until it recently stopped  
5 recording daily temperatures.

6           Q.     Does this conclude your testimony?

7           A.     Yes it does.

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<sup>2</sup> Rebuttal Testimony of Lena M. Mantle, page 28, ll. 13-17.

<sup>3</sup> The temperature records for this station begin in 1893, but there are scattered throughout its historical record days and periods of missing data. The most recent long term period of not recording temperature occurred from March 1, 1915, through March 14, 1917. There have been other times where the station had been down for a complete month for maintenance or other issues, with 1973 being the most recent year with multiple months of missing data (January, February, April and September). Since that time, there have only been four months with completely missing data; August 1980, November 1982, July 1986, and March 1991.

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

In the Matter of Spire Missouri Inc.'s d/b/a            )  
Spire Request for Authority to Implement a            )  
General Rate Increase for Natural Gas                )  
Service Provided in the Company's                    )  
Missouri Service Areas                                    )

Case No. GR-2021-0108

**AFFIDAVIT OF MICHAEL L. STAHLMAN**

STATE OF MISSOURI        )  
                                      )        ss.  
COUNTY OF COLE         )

COMES NOW MICHAEL L. STAHLMAN and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Surrebuttal Testimony of Michael L. Stahlman*; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

  
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MICHAEL L. STAHLMAN

**JURAT**

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 13<sup>th</sup> day of July 2021.

D. SUZIE MANKIN  
Notary Public - Notary Seal  
State of Missouri  
Commissioned for Cole County  
My Commission Expires: April 04, 2025  
Commission Number: 12412070

  
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Notary Public