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 Weather Normalization
Witness: *Michael L. Stahlman*
Sponsoring Party: *MoPSC Staff*
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MISSOURI PUBLIC SERVICE COMMISSION

INDUSTRY ANALYSIS DIVISION

TARIFF/RATE DESIGN DEPARTMENT

REBUTTAL TESTIMONY

OF

MICHAEL L. STAHLMAN

UNION ELECTRIC COMPANY
d/b/a Ameren Missouri

CASE NO. GR-2021-0241

Jefferson City, Missouri
October 2021

1 **REBUTTAL TESTIMONY**

2 **OF**

3 **MICHAEL L. STAHLMAN**

4 **UNION ELECTRIC COMPANY**

5 **d/b/a Ameren Missouri**

6 **FILE NO. GR-2021-0241**

7 Q. Please state your name and business address.

8 A. My name is Michael L. Stahlman, and my business address is Missouri Public
9 Service Commission, P.O. Box 360, Jefferson City, Missouri, 65102.

10 Q. By whom are you employed and in what capacity?

11 A. I am employed by the Missouri Public Service Commission (“Commission”) as a
12 Regulatory Economist in the Energy Rate Design & Tariffs Unit, Economic Analysis Section,
13 of the Tariff, Safety, Economic and Engineering Analysis Department in the Industry Analysis
14 Division.

15 Q. Are you the same Michael L. Stahlman that filed direct testimony in portions in
16 Staff’s Cost of Service (“CoS”) and Class Cost of Service (“CCoS”) Reports?

17 A. Yes.

18 Q. What is the purpose of your testimony?

19 A. I will discuss the differences between Staff’s and Ameren Missouri’s weather and
20 normalized weather. I will also briefly discuss some weather normalization.

21 Q. Please summarize your testimony.

22 A. Although there are some differences in methods, Staff has found that Ameren
23 Missouri’s weather normalization and Covid-19 adjustments are reasonable and is willing to
24 accept them.

Actual Weather

1
2 Q. Did Staff and Ameren Missouri start off with the same weather?

3 A. Generally yes. Staff and Ameren Missouri both used Columbia and Cape
4 Girardeau weather stations, but Staff used the update period to obtain the most recent data
5 available.¹ One of the consequences of using the update period is that Staff's weather analysis
6 includes the February 2021 weather event while Ameren Missouri's does not, which means
7 Staff expects a larger than usual weather normalization for that month than what Ameren
8 Missouri would have for their February 2021 adjustment.

9 **Normal Weather and Normalization**

10 Q. Is the normal weather used by Ameren Missouri and Staff the same?

11 A. No. Both Ameren Missouri and Staff used the ranking method to develop the
12 normal weather, but Staff planned on using three years of actual weather to allow for examining
13 the impact of Covid-19, where Ameren Missouri examined only two. Because the 30 year
14 historical period should not overlap with the period being examined, Staff's 30 year weather
15 period was from January 1, 1988 through December 31, 2017. Staff's method for determining
16 weather normals in this case is identical to the method used in the Ameren Missouri electric
17 case, Case No. ER-2021-0240.²

¹ There were also three dates for each station where Ameren Missouri's actual Heating degree days differed from Staff's. For the Columbia weather station, those dates are: March 23, 2020, May 10, 2020, and October 21, 2020. For the Cape Girardeau station, those dates are: March 23, 2020, April 1, 2020, and May 10, 2020. Staff has verified that its daily temperatures match the Midwestern Regional Climate Center's ("MRCC") temperatures for those dates.

For its update period, Staff is aware of one date's temperatures in its own dataset at the Cape Girardeau station that does not match the current MRCC data: March 2, 2021. The data for this date was originally missing when Staff downloaded the data on April 1, 2021. It was subsequently updated at an unknown time by MRCC to weather that is not consistent with the local weather reports at Cape Girardeau for that date. Staff substituted the missing temperature for that station with the corresponding temperature from the Sikeston Missouri station, which is consistent with the local weather reports for that date.

² There are some differences between how Staff has historically determined normal weather in the electric cases compared to gas cases. The biggest difference is electric ranks temperatures over the whole year while gas ranks

1 Q. Did Staff ultimately use the three years of data to determine the impacts of Covid-
2 19 in its direct case?

3 A. No. Unfortunately the time constraints of other cases did not permit Staff to
4 develop new weather normalization models.

5 Q. Did Staff compare the results of a daily class usage weather normalization model,
6 like Ameren Missouri used, to the billing cycle usage per customer weather normalization
7 model that Staff used?

8 A. Yes for the Residential, General Service, and Standard Transport classes in the
9 Panhandle Eastern system. Staff compared the results of the weather normalization adjustment
10 factors for both models and found that there was only small differences between the two
11 approaches.

12 Q. Did the results of a daily class usage weather normalization model also indicate
13 that an adjustment for Covid-19 should be made?

14 A. For the General Service and Standard Transport classes, yes. Covid-19 was not a
15 significant variable for the Residential class. Staff witness Joel McNutt calculated the Covid-
16 19 adjustment for the Large Transport and Special Contract classes since these classes were not
17 weather normalized.³

18 Q. What is Staff's conclusion of Ameren Missouri's weather normalization and
19 Covid-19 adjustments?

20 A. Despite the differences in approach, Staff has found that Ameren Missouri's
21 weather normalization and Covid-19 adjustments for all classes except the Large Transport and

temperatures within each month. Electric also uses a two day weighted mean daily temperature, but that change is not very different than mean daily temperature.

³ These adjustments are provided in Staff's COS Report, p. 57 ll.1-9.

Rebuttal Testimony of
Michael L. Stahlman

1 Special Contract classes discussed by Staff Witness Joel McNutt are reasonable and is willing
2 to accept them.

3 Q. Does this conclude your testimony?

4 A. Yes it does.