MISSOURI PUBLIC SERVICE COMMISSION

INDUSTRY ANALYSIS DIVISION

TARIFF AND RATE DESIGN DEPARTMENT

REBUTTAL TESTIMONY

OF

MICHAEL L. STAHLMAN

THE EMPIRE DISTRICT ELECTRIC COMPANY

CASE NO. ER-2019-0374

Jefferson City, Missouri
March 2020

<center>

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Q.   Please state your name and business address.

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

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

A.   I am employed by the Missouri Public Service Commission ("Commission") as a Regulatory Economist III in the Tariff and Rate Design Department, of the Industry Analysis Division.

Q.   Are you the same Michael L. Stahlman that supported sections in Staff's Cost of Service ("COS Report")?

A.   Yes.

Q.   What is the purpose of your testimony?

A.   The purpose of my rebuttal testimony is to respond to The Empire District Electric Company's ("Empire") witnesses Eric Fox concerning the weather normalization adjustments and Tim Lyons concerning the Weather Normalization Rider ("WNR").

Q.   Do you have any corrections to your portions of the COS Report?

A.   Yes. On page 41, I state "The 365-Days Adjustment for RES, SGS, LGS, SPS, and LPS were provided to Staff witness Michelle A. Bocklage, who used the 365-Days Adjustment to adjust the revenues of the weather-normalized class revenues months to the

<center>Page 1</center>

1 twelve months ended June 30, 2019." The date June 30, 2019 was made in error, it should read

2 July 31, 2019.

3   Q.   Please summarize your testimony.

4   A.   My testimony will address Empire's insufficient data provided to Staff and

5 explain how Empire's own analysis suffers this data defect. Secondly, there is a mismatch in

6 methods used to calculate average temperature for Empire's daily average actual temperature

7 and the ranked normal weather data, which I will discuss.

8 **Weather Normalization Adjustment**

9   Q.   What are Staff's issues with Empire's weather normalization adjustments?

10   A.   The chief issue, which impacts both Staff's and Empire's weather analysis, is

11 the lack of data provided to use to properly scale the daily weather adjustments to an overall

12 revenue month. Generally, Staff and Empire used the same method to calculate the weather

13 normalization adjustment, though there will be some differences due to using different test

14 periods.[1] Staff identified two technical issues that would also result in some differences.

15   Q.   What data does Staff still need from Empire in order to make its weather

16 normalization adjustment?

17   A.   Staff has only recently received the billing cycle data per rate class discussed in

18 Staff's COS Report. In its original response to Staff Data Request No. 0142.2, Empire provided

19 billing cycle data per FERC classification. This classification divides customers based on

20 classifications such as residential (including any residential lighting), commercial, industrial,

21 and municipal rather than use rate classes as defined in Empire's effective tariffs. Staff received

22 the corrected data on February 24, 2020, but has not yet fully recalculated the weather

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[1] Staff used an update period through July 31, 2019.

1 adjustments. Preliminary changes in the weather adjustment factors by class by month are

2 provided in Table 1.

3

Table 1: Change in Wx Factors						
Year	Month	Res	CB	GP	SH	TEB
2018	8	0.36%	0.13%	-1.43%	0.22%	-0.08%
2018	9	-0.08%	0.02%	0.69%	0.08%	0.03%
2018	10	0.14%	-0.24%	-0.29%	-0.34%	-0.07%
2018	11	2.64%	0.44%	-0.04%	1.08%	0.26%
2018	12	0.41%	0.06%	-0.01%	-0.23%	0.03%
2019	1	0.12%	0.12%	0.00%	0.01%	0.21%
2019	2	0.04%	0.07%	0.07%	-0.18%	0.75%
2019	3	-0.18%	-0.06%	-0.43%	0.18%	-1.09%
2019	4	0.38%	-0.04%	-0.35%	0.20%	0.42%
2019	5	-0.20%	-0.35%	1.24%	0.18%	-0.41%
2019	6	0.32%	0.12%	0.15%	0.17%	0.18%
2019	7	-0.08%	0.00%	-0.23%	-0.09%	-0.01%
Days Adj.		0.01%	0.01%	-0.19%	0.00%	0.05%

4

5 Q. What are the technical issues?

6 A. First, while Staff's and Empire's daily normal average temperatures are the

7 same, Empire's daily actual average temperatures are based on a 24-hr average rather than the

8 average of daily highs and lows. This method of averaging is inconsistent with the method

9 Empire used to calculate the normal average temperatures. Additionally, hourly temperatures

10 are read on the hour and would miss the daily high and low unless they happen to occur on the

11 top of the hour. As an example, Table 2 shows the daily temperatures at the Springfield Airport

12 for January 25, 2020.

13 Table 2: The Daily High, Low, and Hourly Temperatures for Springfield Airport,

14 January 25, 2020.

1

Date	Time	Temp (F)
1/25/2020	12:52:00 AM	31
1/25/2020	1:52:00 AM	31
1/25/2020	2:52:00 AM	31
1/25/2020	3:52:00 AM	31
1/25/2020	4:52:00 AM	31
1/25/2020	5:52:00 AM	30
1/25/2020	6:52:00 AM	28
1/25/2020	7:52:00 AM	28
1/25/2020	8:52:00 AM	29
1/25/2020	9:52:00 AM	29
1/25/2020	10:52:00 AM	32
1/25/2020	11:52:00 AM	33
1/25/2020	12:52:00 PM	37
1/25/2020	1:52:00 PM	39
1/25/2020	2:52:00 PM	40
1/25/2020	3:52:00 PM	41
1/25/2020	4:52:00 PM	40
1/25/2020	5:52:00 PM	39
1/25/2020	6:52:00 PM	37
1/25/2020	7:52:00 PM	37
1/25/2020	8:52:00 PM	37
1/25/2020	9:52:00 PM	38
1/25/2020	10:52:00 PM	38
1/25/2020	11:52:00 PM	38
	Average	34.375
Daily High/Low	42	28
	Average	35.00

2

3   As can be seen, there is a difference between the 24 hour average and the daily high/low

4   average. Additionally, no hourly read captured the actual daily high temperature.

5   Secondly, Staff noted a small discrepancy for a cell that didn't get updated information

6   in Empire's workpapers. Staff notified Empire and believes that this will be corrected.

7   Q.   Are there other issues that would impact Staff and Empire's weather analysis?

1   A.   Yes. It is my understanding that there could be a large number of bills that are

2 based on estimates of usage rather actual usage. This could impact the weather normalization

3 analysis since the regression analysis depends on the relationship between actual usage and

4 weather. This issue is further discussed by Staff witness Robin Kliethermes in her Rebuttal

5 testimony, and is being further investigated by other Staff witnesses.

6   Q.   Does this conclude your testimony?

7   A.   Yes.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of The Empire District Electric Company's Request for Authority to File Tariffs Increasing Rates for Electric Service Provided to Customers in its Missouri Service Area	)))))	Case No. ER-2019-0374

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 *Cost of Service Rebuttal Testimony*; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

_____
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 _2nd_ day of March 2020.

_____
Notary Public