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## Exhibit No. 160

Staff – Exhibit 160 Michael Stahlman Rebuttal Testimony File No. ER-2022-0337

Exhibit No.:

Issue(s): Blocks

Witness: Michael L. Stahlman Sponsoring Party: MoPSC Staff Type of Exhibit: Rebuttal Testimony

Case No.: ER-2022-0337

Date Testimony Prepared: February 15, 2023

# 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. ER-2022-0337

Jefferson City, Missouri February 2023

1		REBUTTAL TESTIMONY	
2		OF	
3		MICHAEL L. STAHLMAN	
4 5		UNION ELECTRIC COMPANY, d/b/a AMEREN MISSOURI	
6		CASE NO. ER-2022-0337	
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	
12	a Regulatory l	Economist in the Tariff/Rate Design Department in the Industry Analysis Division	
13	of the Commission's Staff.		
14	Q.	Are you the same Michael L. Stahlman that filed direct testimony in this docket?	
15	A.	Yes.	
16	Q.	What is the purpose of your testimony?	
17	A.	I will discuss the differences between Staff's and Ameren Missouri's block	
18	adjustments for residential and small general service ("SGS") customers as described by		
19	Ameren Missouri Witness Nicholas Bowden.		
20	Q.	Please summarize your testimony.	
21	A.	Dr. Bowden's reliance on several monthly-specific regression models is	
22	inefficient, not consistent with theory or the data, and unreliable.		
23	Q.	What is the most significant evidence that Dr. Bowden's method is unreliable?	
	i		

	Michael L. Stahlman		
1	A. The fact that Dr. Bowden himself doesn't rely on it. Instead of using the results		
2	of the regression analysis, he opts to use an "additional logical constraint1" when his result		
3	self-admittedly don't make sense.		
4	Q. Does the "additional logical constraint" include an alternative method of		
5	weather-normalizing the blocks in the affected months?		
6	A. No. Dr. Bowden's solution is to leave the block unadjusted. This solution, while		
7	better than using an inappropriate regression adjustment, questions the whole reason for		
8	weather normalizing the block usage; if not necessary here, why bother with the other months?		
9	Q. Which months were unadjusted for Block 1 usage?		
10	A First, Dr. Bowden only ran regression analyses on the months of October		
11	November, December, January, February, March, April, and May.		
12	For 1M Residential, Dr. Bowden left November 2021, December 2021, January 2022		
13	and February 2022 unadjusted – half of the months that Dr. Bowden analyzed. For June, July		
14	and August, Dr. Bowden also left the Block 1 percent equal to the actual, but for September		
15	Dr. Bowden set the Block 1 percentage equal to October's percent.		
16	For SGS, Base kWh was only unadjusted for November 2021 and for the unanalyzed		
17	summer months of June through September.		
18	Q. Are there issues with running a regression analysis using monthly temperature		
19	and monthly usage?		
20	A. Yes. Usage is usually measured in a revenue month and weather is normally		
21	read in a calendar month. Revenue months are not the same as calendar months; revenue		

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months are the sum of several bill cycles that can span over an approximate two calendar month

Direct Testimony of Nicolas Bowden, Ph.D., p. 14, ll. 15-16.

	Rebuttal Testimony of Michael L. Stahlman		
1	period. Dr. Bowden would need to include a system of weights to ensure that the block		
2	percentages are being compared on the same time basis as the weather.		
3	Q. Does it seem rational to regress revenue months individually rather than		
4	combining the data sets together?		
5	A. No. The customers in the first billing cycles in a February revenue month		
6	consume most of their usage in January calendar dates and only in the first few days of the		
7	February calendar dates. Only the customers in the later bill cycles of a February revenue		
8	month would have most of their usage occurring in the February calendar month. Likewise,		
9	the customers in the first bill cycles of the March revenue month would have a majority of their		
10	usage in the February. So a weather event in mid-February affects two revenue months rather		
11	than just one; both the February and March revenue months.		
12	Also, the data itself suggests that there is no defined break between revenue months.		
13	Confidential Figure 1 below:		
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- Q. Figure 1 does show a relationship between heating degree days and the usage in the first block. Do you consider this a direct relationship?
- A. No. The relationship is indirect because the increase in heating degree days tends to mean higher usage, and larger customer usage tends to mean more usage is in the second block instead of the first. A more direct way of determining block 1 usage percentage would be to analyze that percent with average customer usage.
- Q. Do you agree with analyzing a period from 2007 through 2022 as Dr. Bowden did?
- A. No. I would expect the relationship between weather and usage, even just in block 1 usage, to change over that period due to technological innovations, such as energy efficiency measure adoption.
  - Does this conclude your rebuttal testimony? Q.
- A. Yes it does.

#### BEFORE THE PUBLIC SERVICE COMMISSION

### OF THE STATE OF MISSOURI

In the Matter of Union Electric Company d/b/a Ameren Missouri's Tariffs to Adjust ) Its Revenues for Electric Service )	Case No. ER-2022-0337					
AFFIDAVIT OF MICHAEL L. STAHLMAN						
STATE OF MISSOURI ) ) ss. COUNTY OF COLE )	a a					
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 <i>Rebuttal Testimony of Michael L. Stahlman</i> ; and that the same is true and correct according to his best knowledge and belief.						
Further the Affiant sayeth not.	8 5					
MICHAEL L. S'	TAHLMAN					
JURAT	a se					
Subscribed and sworn before me, a duly constituted and at the County of Cole, State of Missouri, at my office in Jefferso of February 2023.	$\sim 11$					
D. SUZIE MANKIN Notary Public - Notary Seal State of Missouri Commissioned for Cole County My Commission Expires: April 04, 2025 Commission Number 2011 04, 2025	ellankin					