

# Exhibit No. 161

*Exhibit No.:*  
*Issue(s):* *Billing Determinants*  
*Witness:* *Michael L. Stahlman*  
*Sponsoring Party:* *MoPSC Staff*  
*Type of Exhibit:* *Surrebuttal Testimony*  
*Case No.:* *ER-2022-0337*  
*Date Testimony Prepared:* *March 13, 2023*

**MISSOURI PUBLIC SERVICE COMMISSION**

**INDUSTRIAL ANALYSIS DIVISION**

**TARIFF/RATE DESIGN DEPARTMENT**

**SURREBUTTAL TESTIMONY**

**OF**

**MICHAEL L. STAHLMAN**

**UNION ELECTRIC COMPANY,  
d/b/a AMEREN MISSOURI**

**CASE NO. ER-2022-0337**

*Jefferson City, Missouri*  
*March 2023*

1   **SURREBUTTAL TESTIMONY OF**  
2   **MICHAEL L. STAHLMAN**  
3   **UNION ELECTRIC COMPANY,**  
4   **d/b/a AMEREN MISSOURI**  
5   **CASE NO. ER-2022-0337**

6           Q.     Please state your name and business address.

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

9           Q.     Are you the same Michael L. Stahlman that filed direct and rebuttal testimony  
10 in this docket?

11          A.     Yes.

12          Q.     Please summarize your surrebuttal testimony.

13          A.     In his rebuttal testimony, Union Electric Company, d/b/a Ameren Missouri  
14 witness Dr. Nicholas Bowden incorrectly specified Staff’s regression models used to  
15 estimate the Block 1 usage, and from that incorrect model, draws erroneous conclusions  
16 about Staff’s regression models.

17          Q.     Does Dr. Bowden, in his rebuttal testimony, correctly specify your  
18 Residential and Small General Service (“SGS”) regression models on page 15, line 6?

19          A.     No. His equation excludes the polynomial<sup>1</sup> and dummy variables<sup>2</sup> that I used.

20          Q.     Is Dr. Bowden correct that Staff assumed “The existence of a single  
21 relationship between these two variables...”?<sup>3</sup>

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<sup>1</sup> A polynomial variable is an independent variable that is squared, cubed, or raised to any exponential power.  
<sup>2</sup> A dummy variable is a variable that is either a “1” or a “0” depending on a specified condition.  
<sup>3</sup> Rebuttal Testimony of Nicolas Bowden, PhD. p. 16, ll. 9-12.

1           A.     No. Because Dr. Bowden did not properly specify Staff's model on page 15,  
2 line 6, he erroneously concludes that Staff's model is based on a singular relationship  
3 between only two variables.

4           However, this critique of Staff's model is confusing considering Dr. Bowden's  
5 individual monthly regressions were all based on a singular relationship except for May  
6 which included a cooling degree day variable. Dr. Bowden's analysis of October did not  
7 even consider heating degree days, and most of his own regressions were largely  
8 insignificant with adjusted R-squares as low as 0.118 for SGS and 0.533 for Residential.<sup>4</sup>

9           Q.     On page 18, lines 10 through 15 of his rebuttal, Dr. Bowden states that Staff's  
10 model "requires that an increase in average usage in every month have the same probability  
11 of increasing Block 1 usage." Is this correct?

12          A.     No. The context of Dr. Bowden's analysis on pages 16 through 18 is specific  
13 to the residential class. Again, Dr. Bowden draws this erroneous conclusion because he  
14 ignored the polynomial used to account for the curved relationship.

15          Q.     Do you agree with Dr. Bowden's characterization of Staff's procedure on  
16 page 18 lines 16 through page 19 line 11 of his rebuttal testimony?

17          A.     No. Dr. Bowden does not appear to understand that Staff used two different  
18 procedures for the residential and SGS classes, and is mixing the two procedures up.

19          Q.     Why did Staff use two different procedures?

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<sup>4</sup> Dr. Bowden did not provide regression statistics in his workpapers but only performed a line estimate procedure. Staff verified the coefficients used with regression analysis which also provided the regression statistics.

1           A.     Staff used two different procedures because the cumulative frequency data  
2 was representative of the Residential Anytime Service but the cumulative frequency data of  
3 the SGS class was not representative of the subset of SGS customers that had blocked rates.  
4 Residential and SGS classes both have optional rate designs, but the cumulative frequency  
5 data was not split into these alternative rate designs. For residential, the estimated Block 1  
6 usage based on the cumulative frequency data closely aligned with the actual Block 1 usage  
7 percent prior to any weather normalization. For SGS however, the estimated Block 1 usage  
8 was much higher, thus Staff used the actual summer, base, and seasonal kWh for its analysis.

9           Q.     On page 19 lines 9 through 10 of his rebuttal testimony, Dr. Bowden states  
10 that there is “no reasonable logic that supports” a decision to use 100% in Block 1. What is  
11 the logic that supports this decision?

12           A.     There is no blocking in the summer months. Although he claims that this  
13 was done for “several months”, this was only for three months for the residential class only,  
14 July, August, and September. The winter rates are only applicable for October through May.  
15 Because the summer period begins on June 1 and bill cycles are approximately thirty (30)  
16 days each, there should not be much, if any winter usage in these summer months, and any  
17 potential usage should be relatively small to make usage in the second block unlikely for a  
18 residential customer.

19           Additionally, as noted in my rebuttal testimony, Dr. Bowden did not even provide  
20 any analysis for these months or for the month of June.

21           Q.     Does this conclude your surrebuttal testimony?

22           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        )

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.

  
\_\_\_\_\_  
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 8<sup>th</sup> day of March 2023.

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