

*Exhibit No.:*  
*Issue(s):* *Class Cost of Service,  
Rate Design,  
Energy Efficiency Adjustment*  
*Witness:* *Hari K Poudel, PhD*  
*Sponsoring Party:* *MoPSC Staff*  
*Type of Exhibit:* *Rebuttal Testimony*  
*Case No.:* *ER-2024-0261*  
*Date Testimony Prepared:* *August 18, 2025*

**MISSOURI PUBLIC SERVICE COMMISSION**

**INDUSTRY ANALYSIS DIVISION**

**TARIFF AND RATE DESIGN DEPARTMENT**

**REBUTTAL TESTIMONY**

**OF**

**HARI K. POUDEL, PhD**

**THE EMPIRE DISTRICT ELECTRIC COMPANY,  
d/b/a Liberty**

**CASE NO. ER-2024-0261**

*Jefferson City, Missouri  
August 2025*

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**HARI K. POUDEL, PhD**  
**THE EMPIRE DISTRICT ELECTRIC COMPANY,**  
**d/b/a Liberty**  
**CASE NO. ER-2024-0261**

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Q. Please describe Ms. Maini's revenue requirement allocations among the residential customers.

A. According to Ms. Maini's testimony, the revenue requirement allocation differs among residential codes. Individual rate codes are assigned multipliers to align their rates with Ms. Maini's calculated class cost of service study ("COSS"). In Figure 2.1, reproduced below, Ms. Maini presented a comparative analysis of returns utilizing two different multipliers: MECG COSS Class Multiplier (Column 2) and MECG Recommended Class Multiplier (Column 3). She stated that, "[t]he multipliers are calculated by taking the class increase and dividing it by the system average. The class multiplier would be applied to the final authorized increase."<sup>2</sup> For example, a 1.15x multiplier for TC Residential indicates that the class pays 15% higher than the average increase. A 0.88x multiplier indicates that the class pays 12% less than the average. These multipliers are based on the results of the MECG COSS. Ms. Maini fails to offer any empirical justification for the selection of the recommended multipliers.

**Figure 2.1: MECG COSS Based Multiplier and MECG Recommended Class Multiplier**

| Column                    | 1         | 2                          | 3                                 |
|---------------------------|-----------|----------------------------|-----------------------------------|
| Class                     | MECG COSS | MECG COSS Class Multiplier | MECG Recommended Class Multiplier |
| NS Residential            | 27.7%     | 0.94                       | 0.88                              |
| TC Residential            | 42.5%     | 1.43                       | 1.15                              |
| TP Residential            | 61.7%     | 2.08                       | 1.20                              |
| NS General Service        | 17.7%     | 0.60                       | 0.80                              |
| TC General Service        | 10.1%     | 0.34                       | 0.80                              |
| TP General Service        | 98.7%     | 3.33                       | 1.25                              |
| NS Large General          | 24.3%     | 0.82                       | 0.85                              |
| TC Large General          | 34.1%     | 1.15                       | 1.01                              |
| NS Small Primary          | -1.0%     | -0.03                      | 0.74                              |
| TC Small Primary          | -5.0%     | -0.17                      | 0.74                              |
| Large Power               | 5.6%      | 0.19                       | 0.76                              |
| Transmission              | 10.4%     | 0.35                       | 0.77                              |
| MS-Miscellaneous          | -22.7%    | -0.77                      | 0.70                              |
| SPL-Municipal St Lighting | 55.1%     | 1.86                       | 1.20                              |
| PL-Private Lighting       | -30.1%    | -1.01                      | 0.70                              |
| LS-Special Lighting       | 240.8%    | 8.13                       | 1.25                              |
| Total Company             | 29.64%    | 1.00                       | 1.00                              |

<sup>2</sup> Case No. ER-2024-0261, Maini Direct Testimony, Page 21, Lines 16-19.

1 Q. Does Staff agree with Ms. Maini's recommended revenue requirement  
2 allocations?

3 A. No.

4 Q. Please describe Staff's disagreement with Ms. Maini.

5 A. As is demonstrated in Figure 2.1 from Ms. Maini's direct testimony, the different  
6 rate options within the residential class are assigned "class multipliers" that align with MCEG's  
7 COSS. The proposed class multiplier does not acknowledge the shifting of the revenue  
8 allocation within the residential class. Considering multipliers for revenue allocation without  
9 thorough empirical analysis may not fulfill the need for revenue shifting within the residential  
10 class as discussed by Ms. Maini in her testimony. A clear understanding of the cost basis is  
11 needed to reasonably realign revenue recovery within a class. That is not present in this case,  
12 as discussed further in Staff witness Sarah L.K. Lange's rebuttal testimony.

13 Second, on page 21 (Lines 20-21) of her direct testimony, Ms. Maini recommended the  
14 necessity of the moderation for certain rate classes, including residential. A data request (DR)  
15 was sent on July 24, 2025, requesting an explanation behind the reasoning and methodology  
16 that was used to calculate the MCEG Recommended Class Multipliers, but unfortunately, the  
17 response received on August 13, 2025, declined to provide this additional information, instead  
18 primarily providing citation to Ms. Maini's existing testimony. Due to the lack of the  
19 information, Staff is unable to verify whether the applied multipliers are valid or not. Therefore,  
20 there might be a possible arbitrary moderation. For example, the moderation of TC residential's  
21 multiplier from 1.43x to 1.15x seems arbitrarily. Additionally, it seems an inconsistent  
22 treatment of TC residential vs. TP residential. The TC residential (1.15x) is only slightly lower  
23 than TP residential (1.20x), but Ms. Maini's testimony does not explain why.

1 Third, Ms. Maini's proposal may drive intraclass rate code switching as customers  
2 self-select the rate that yields the best bill outcome, not necessarily matching cost causation.

3 Finally, the COSS utilized to inform the class multipliers are flawed as discussed in the  
4 rebuttal testimony of Staff witnesses, Sarah L.K. Lange and Marina Gonzales.

5 Q. What would be needed to reasonably adjust rates within a rate class?

6 A. A clear understanding of the cost basis is needed to reasonably realign revenue  
7 recovery within a class. That is not present in this case, as is discussed further in Staff witness  
8 Sarah L.K. Lange's rebuttal testimony.

9 **Residential Rate Design Approach**

10 Q. Is Empire proposing changes to the residential rate design?

11 A. Yes.

12 Q. What specific changes are being introduced?

13 A. Empire is recommending a new<sup>3</sup> declining block rate design among residential  
14 customers. According to this new rate plan for the NS Residential, the first 600-kWh of usage  
15 in a given billing month will be \$0.19330/kWh during the summer and winter seasons.  
16 Additional usage will be \$0.16393/kWh during a given billing month in the summer season and  
17 \$0.13202/kWh during the winter season.<sup>4</sup>

18 Q. Did Empire provide justification for these changes?

19 A. No. Staff's review found no supporting testimonies or workpapers documenting  
20 the rationale for this residential rate design modification.

21 Q. How does this proposal compare to historical residential rate design?

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<sup>3</sup> JE-2025-0127.

<sup>4</sup> The Summer Season consists of the first four monthly billing periods on and after June 16, and the Winter Season consists of the remaining eight monthly billing periods of the calendar year.

1           A.     This proposal represents a substantial departure from longstanding practice.

2     Staff analysis confirms:

- 3           •     Empire's Residential Service Schedule has not implemented a summer declining
- 4                 block rate design since August 15, 1994.
- 5           •     Even the most recent residential tariff<sup>5</sup> maintained this absence.

6           Q.     Does Staff consider this proposed change reasonable?

7           A.     No. Staff has significant concerns regarding reasonableness. The introduction of  
8     a summer declining block rate design is a significant matter and goes against the principle of  
9     cost causation. A declining block rate design in electric utility means that the price per unit of  
10    electricity decreases as the quantity consumed increases. For example, Empire's first block of  
11    usage of the 600 kWh will charge a \$0.19774/kWh, and the additional usage of kWh will charge  
12    a \$0.16837/kWh in the summer season. However, the cost of serving energy to a residential  
13    household does not suddenly decrease in the middle of the month. The cost of serving load  
14    through Southwest Power Pool ("SPP") is dependent on the time of day and not the amount of  
15    energy purchased in a given month.

16    **Energy Efficiency Adjustment**

17           Q.     Did Empire perform an analysis of the energy efficiency adjustment<sup>6</sup> using  
18    kWh savings like other utilities?

19           A.     No. Empire did not perform these calculations using kWh savings, which  
20    contrasts with standard utility practice in Missouri.

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<sup>5</sup> YE-2021-0041.

<sup>6</sup> As detailed on page 2, lines 8-14 of my direct testimony filed on July 2, 2025, the energy efficiency adjustment normalizes the billing units used to calculate the revenue requirement for Empire. The goal of the energy efficiency adjustment is to account for the annualized impact of energy efficiency measures installed during the update period. This modification adjusts for the decrease in billing units and related revenue that Empire encountered due to its implementation of energy efficiency measures approved by the Commission pursuant to the Missouri Energy Efficiency Investment Act ("MEEIA").

1 Q. Has Staff reviewed Empire's methodology of revenue requirement calculations?

2 A. Yes. Staff found Empire used dollar-based adjustments rather than proper kWh  
3 savings calculations. On January 13, 2025, Staff communicated with Empire about  
4 Empire's Witness workpaper (Schedule REV ADJ 8) related to Missouri Energy Efficiency  
5 Investment Act ("MEEIA") adjustment. Empire calculated the EE adjustment using dollars and  
6 not by kWh savings.<sup>7</sup>

7 Q. Does Staff provide a detailed EE adjustment analysis in its direct filing?

8 A. Yes. Staff's direct filing includes complete kWh-based calculations with  
9 supporting workpapers. Staff's methodology is consistent with the approach used by other  
10 Missouri utilities in general rate cases before the Commission.

11 Q. Has Empire indicated that it opposes Staff's methodology?

12 A. No. Staff anticipates that Empire will adopt Staff's methodology as it is  
13 advantageous for Empire to do so.

14 **CONCLUSION AND RECOMMENDATION**

15 Q. What is your recommendation concerning the topics on which you provide  
16 Rebuttal Testimony in this case?

17 A. Staff recommends that the Commission reject the proposed residential intraclass  
18 revenue shifts proposed by Ms. Maini. Staff recommends that the billing determinants used in  
19 this case reflect Staff's EE adjustment, which is consistent with the treatment for kWh savings  
20 for Ameren Missouri, Evergy Missouri West, and Evergy Missouri Metro.

21 Q. Does this conclude your rebuttal testimony?

22 A. Yes. It does.

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<sup>7</sup> DR No. 0227.



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

In the Matter of the Request of The Empire     )  
District Electric Company d/b/a Liberty for     )  
Authority to File Tariffs Increasing Rates     )  
for Electric Service Provided to Customers     )  
in Its Missouri Service Area                     )

Case No. ER-2024-0261

**AFFIDAVIT OF HARI K. POUDEL, PhD**

STATE OF MISSOURI     )  
                                      )  
COUNTY OF COLE     )     ss.

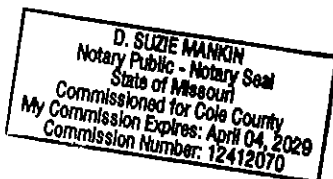
**COMES NOW HARI K. POUDEL, PhD** and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Rebuttal Testimony of Hari K. Poudel, PhD*; and that the same is true and correct according to his best knowledge and belief.

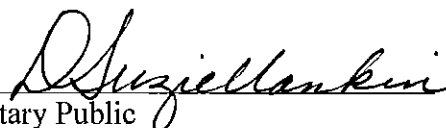
Further the Affiant sayeth not.

  
\_\_\_\_\_  
**HARI K. POUDEL, PhD**

**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 11<sup>th</sup> day of August 2025.



  
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Notary Public