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**MISSOURI PUBLIC SERVICE COMMISSION**

**FILE NO. ER-2024-0319**

**SURREBUTTAL TESTIMONY**

**OF**

**THOMAS HICKMAN**

**ON**

**BEHALF OF**

**UNION ELECTRIC COMPANY**

**D/B/A AMEREN MISSOURI**

**St. Louis, Missouri  
February, 2025**

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**SURREBUTTAL TESTIMONY**

**OF**

**THOMAS HICKMAN**

**FILE NO. ER-2024-0319**

1

**I. INTRODUCTION**

2

**Q. Please state your name and business address.**

3

A. My name is Thomas Hickman. My business address is One Ameren Plaza,

4

1901 Chouteau Ave., St. Louis, Missouri.

5

**Q. Are you the same Thomas Hickman that submitted direct and rebuttal**

6

**testimony in this case?**

7

A. Yes, I am.

8

**II. PURPOSE OF TESTIMONY**

9

**Q. To what testimony or issues are you responding?**

10

A. My surrebuttal testimony responds to criticisms of my Class Cost of Service

11

Study ("CCOSS") filed in this case. Specifically, I will respond to criticisms made by Staff

12

relating to allocations of general plant, various distribution allocations, and my method of

13

using the non-coincident peak in an average and excess ("A&E") allocator of production

14

costs.

1       **III.     RESPONSE TO CRITICISM OF GENERAL PLANT ALLOCATIONS**

2           **Q.     Staff asserts in rebuttal testimony, "It is not reasonable to use a**  
3 **composite expense allocator to allocate rate base."<sup>1</sup> Do you agree with this statement?**

4           A.     I do not. In fact, Staff's claim is contradicted by the National Association  
5 of Regulatory Commission's ("NARUC") Electric Utility Cost Allocation Manual,  
6 specifically, Chapter 8 under the heading "I. GENERAL PLANT," which describes three  
7 approaches, including the approach that I used, to rate base allocation:

8                   One approach to the functionalization, classification, and allocation  
9 of general plant is to assign the total dollar investment on the same  
10 basis as the sum of the allocated investments in production,  
11 transmission and distribution plant. This type of allocation rests on  
12 the theory that general plant supports the other plant functions.

13                  Another method is more detailed. Each item of general plant or  
14 groups of general and common plant items is functionalized,  
15 classified, and allocated. For example, the investment in general  
16 office building can be functionalized by estimating the space used  
17 in the building by the primary functions (production, transmission,  
18 distribution, customer accounting and customer information). This  
19 approach is more time-consuming and presents additional  
20 allocation questions such as how to allocate the common facilities  
21 such as the general corporate computer space, the Shareholder  
22 Relation Office space, etc.

23                  Another suggested basis is the use of the operating labor ratios. In  
24 performing the cost of service study, operation and maintenance  
25 expenses for production, transmission, distribution, customer  
26 accounting and customer information have already been  
27 functionalized, classified, and allocated. Consequently, the amount  
28 of labor, wages, and salaries assigned to each function is known,  
29 and a set of labor expense ratios is thus available for use in  
30 allocating accounts such as transportation equipment,  
31 communication equipment, invests or general office space.<sup>2</sup>

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<sup>1</sup> File No. ER-2024-0319, Rebuttal Testimony of Sarah L.K. Lange, p. 42, ll. 12-13.

<sup>2</sup> NARUC *Electric Utility Cost Allocation Manual*, at p. 105 (1992).

1           While it is true that the NARUC manual discusses approaches other than the one  
2 we used (the third approach), it certainly can't validly be said that use of an approach the  
3 manual recognizes is "unreasonable." In criticizing our use of this NARUC-recognized  
4 approach, Staff latches onto a variant of the first approach, stating: "If the decision is made  
5 to allocate general plant and similar items using already allocated class responsibilities, it  
6 is much less unreasonable to use the allocation of net plant for those items, not the  
7 allocation of labor expense."<sup>3</sup> As noted, our approach can't be said to be unreasonable  
8 given NARUC's recognition of its appropriateness, especially when one considers Staff's  
9 position on allocating these costs in its direct testimony. Recall from Staff direct testimony,  
10 "Staff recommends these costs be allocated to the classes on the basis of energy sales, as  
11 the basic product of an electric utility. However, for validation of its CCoS results, Staff  
12 also calculated the return of each class where administrative and overhead costs are  
13 allocated to the classes on each class's share of net rate bases, and where administrative  
14 and overhead expenses are allocated to the classes on each class's share of net expenses."<sup>4</sup>  
15 The impact of Staff allocating this rate base using energy is an increase to the large primary  
16 service class's share of net ratebase from \$926,065,917 to \$1,016,082,340, an increase of  
17 approximately 9.7%. Staff's approach is *not included at all* in NARUC's outlining of three  
18 acceptable methods for allocating general plant. While the NARUC manual is not the only  
19 conceptual reference for electric utility cost allocation methodologies, it has long been  
20 accepted as the industry standard. This fact is further supported by Staff utilizing numerous  
21 quotes with emphasis from the NARUC manual throughout its rebuttal testimony as a basis  
22 for what Staff claims to be reasonable and not reasonable.

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<sup>3</sup> File No. ER-2024-0319, Rebuttal Testimony of Sarah L.K. Lange, p. 42, ll. 13-15.

<sup>4</sup> File No. ER-2024-0319, Direct Testimony of Sarah L.K. Lange, p. 43, ll. 7-11.



1 of non-residential customers and certain residential customers who have selected the option  
2 to direct bury and own and maintain their own services. The vast majority of residential  
3 customers with underground services do not own those services and thus it is the Company  
4 that owns and is responsible to maintain those services. In fact, cases where the customer  
5 does own and maintain their own services are totally irrelevant to the discussion of how  
6 the Company classifies expenses. In those limited situations where the customer owns the  
7 service and the service itself is not owned by the Company, it does not even appear within  
8 the Company's accounting records. Similarly, any maintenance performed by the customer  
9 who owns those services also does not appear in the Company's accounting records.

10 In summary, the FERC Uniform System of Accounts definitions support that  
11 Operations & Maintenance occurring on underground services occurs in the underground  
12 line expense accounts. Staff's misguided assertions about the ownership of underground  
13 services is both incorrect in most cases and irrelevant to the discussion on how the  
14 Company classifies expenses.

15 **Q. Staff criticizes your use of the Handy Whitman index to adjust**  
16 **historical cost of distribution plant for inflation in your development of minimum size**  
17 **study allocators. Please respond to Staff's criticism.**

18 A. Staff's response misses a few critical aspects of my minimum system  
19 analysis in this case. I am not calculating the absolute value of the cost of a minimum  
20 system to determine my classification of distribution costs between customer-related and  
21 demand-related. I am calculating percentages to apply as allocation factors against the  
22 capital balance to apportion it between classifications. In this way, using index-adjusted  
23 values is reasonable because the indexed values help eliminate the impact of when the costs

1 were incurred, and better insulates the impacts from things like step changes in cost due to  
2 changes in standards.

3 Staff stated in rebuttal testimony, "Based on Staff's analysis of only the poles  
4 account, this artificially inflated the minimum size by 5.15%. I would expect similar results  
5 on other accounts."<sup>7</sup> First, to the extent Staff is implying intentional inflation of an  
6 allocator by using the term "artificially inflated" in this context, the implication is  
7 absolutely false. Second, Staff's expectations driven by its narrow, summary level impact  
8 review are totally wrong. Staff implies because of the impacts within the pole accounts,  
9 Staff expects similar results on other accounts. Table 1 below shows that Staff's  
10 expectation is wrong (Table 1 illustrates the impact of applying Handy Whitman inflation  
11 adjustments to the assets in various accounts on the eventual level of the investment in that  
12 account that is functionalized as customer-related).

13 **Table 1**

Account	Customer % - HW Adjusted	Customer % - No HW Adjusted	Difference	% Change to Customer Proportion
364 - Poles-Towers-Fixtures	67.84%	64.52%	3.32%	5.15%
365 - Overhead Conductor & Device	48.81%	58.69%	-9.89%	-16.85%
366 - Underground Conduit	30.78%	30.88%	-0.09%	-0.30%
367 - Underground Conductor & Device	30.78%	30.88%	-0.09%	-0.30%
368 - Line Transformers	51.67%	45.74%	5.93%	12.97%
369001 - Services - Overhead	91.97%	97.58%	-5.61%	-5.75%
369002 - Services - Underground	84.82%	88.25%	-3.43%	-3.88%

14

15 The results show **five out of the six** other accounts were impacted directionally  
16 **opposite** to the poles account. Staff's expectations were wrong, and the bias that Staff  
17 implies to be present in the Company's analysis simply does not exist.

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<sup>7</sup> File No. ER-2024-0319, Rebuttal Testimony of Sarah L.K. Lange, p. 29 l. 14, p, 30 ll. 1-2.



1           **Q. Staff described the causation for the plant in service accounting**  
2 **("PISA") revenue requirement and criticized the Company's allocation of it. Please**  
3 **respond.**

4           A. Staff stated in rebuttal testimony, referencing PISA balances, that "The  
5 causation of these amounts in the Ameren Missouri revenue requirement are Missouri  
6 statutes and Ameren Missouri management decisions."<sup>8</sup> PISA is a recovery framework to  
7 allow for the recovery of return and depreciation associated with qualifying plant  
8 investments that would otherwise go unrecovered because of lag between historic test year  
9 rate cases. Staff's stated "causation" could be used to describe **every** cost incurred by the  
10 Company under the regulatory framework in Missouri and offers no assistance or direction  
11 to Commission decision making regarding the allocation of the PISA revenue requirement  
12 impacts. The relevant causation that should inform the Commission in deciding the  
13 allocation of the cost underlying the PISA amortization for a given time period is the same  
14 causation that applies to all of the Company's plant investments in the case, that is, the  
15 reason for making the investments in the first place. My approach to allocating the  
16 regulatory asset balance and amortization of that balance reflects functionalization based  
17 explicitly on those underlying plant investments that make up the new period PISA balance  
18 in each rate case. To go beyond that and develop an allocator based on the operating  
19 voltage of the underlying assets, as Staff seems to suggest, would be analytically  
20 burdensome, expensive, and require special onetime analysis in each rate case. My  
21 allocations were made using readily available information, did not require any significant

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<sup>8</sup> File No. ER-2024-0319, Rebuttal Testimony of Sarah L.K. Lange, p. 43, ll. 20-21.

1 one-time special analysis, and are a fundamentally reasonable approach to allocating these  
2 costs consistent with the underlying investments in plant made to serve customers.

3 **Q. Are there any criticisms Staff makes of your CCOSS model that you**  
4 **agree with?**

5 A. Yes, I agree with four different points Staff makes and have made my own  
6 corrections in my model for them. In each case, I may only agree with the criticism in  
7 principle as Staff and I may still fundamentally allocate certain types of costs in different  
8 ways. The four corrections I issue are listed in summary below.

9 1. Correction 1 – I made an update to my CCOSS model reflective of formula  
10 reference errors in a supporting workpaper relating to minimum distribution.

11 2. Correction 2 – I made a correction to the allocation treatment for certain assets  
12 recorded in the TAPS subaccounts.

13 3. Correction 3 – I made a correction for the treatment of certain distribution assets  
14 that are functionally serving as interconnections for certain generation assets.

15 4. Correction 4 – I made a correction for the classification of certain lighting  
16 infrastructure.

17 **Q. Please further describe Correction 1 and quantify the impact of the**  
18 **correction.**

19 A. In the Company's Minimum Size Study workpaper, certain cells are  
20 referenced to values in the margin of dynamic pivot tables. On one tab related to FERC  
21 account 367, Underground Conductor and Devices, the references within two cells were  
22 not updated consistent with changes to the dynamic pivot table. This error was originally  
23 called out in our response to DR CCM 7 in this case in relation to one of the two cells and

1 subsequently in a supplemental response to DR CCM 7 for the other of these two cells.  
2 These two updates drive changes in the classification split between customer-related and  
3 demand-related for account 367 calculated within this file and used as an input within my  
4 CCOSS model. This correction changes the customer-related percentage for account 367  
5 from 27.17% to 30.78%. When input in the CCOSS model, it has the following impact on  
6 class share of revenue requirement, presented in Table 2.

7 **Table 2**

	<u>Total System</u>	<u>Residential</u>	<u>SGS</u>	<u>LGS/SPS</u>	<u>LPS</u>	<u>Lighting</u>
<b>Base Revenues - No Changes</b>	3,332,932,122	1,809,552,484	372,979,427	874,075,370	218,017,098	58,307,744
<b>Correction 1 Change</b>	<u>3,332,932,122</u>	<u>1,811,278,519</u>	<u>372,932,121</u>	<u>872,329,106</u>	<u>217,850,138</u>	<u>58,542,238</u>
<b>Correction 1 Difference</b>	-	1,726,035	(47,306)	(1,746,264)	(166,960)	234,494

8

9 **Q. Please further describe Correction 2 and quantify the impact of the**  
10 **correction.**

11 A. The Company's accounting records contain sub accounts called "TAPS"  
12 within accounts 364 (Poles-Towers-Fixtures) and 365 (Overhead Conductor and Devices).  
13 Two types of assets are tracked within these subaccounts. I will detail the second type as  
14 part of my description of correction 3. The first type are assets that meet the criteria of the  
15 FERC 7-Factor Test. These criteria are established by FERC to help distinguish assets  
16 between transmission (for regulation by FERC) and local distribution (for regulation by  
17 states). As part of my direct testimony, I was frankly unaware of the existence of this  
18 breakout of assets within our accounting records. Understanding what they are, I now  
19 agree that they should be treated differently than they were in my direct testimony. My  
20 proposed treatment, however, is different than that which Staff used in their CCOSS model.  
21 These "TAPS" designated assets are operating at transmission voltage but are functionally

1 distribution. Rather than treat them as functionally transmission, they should be treated as  
2 functionally distribution, and they should be allocated using non-coincident peak at the  
3 transmission voltage level.

4 In addition to this clarification, Staff points to Staff DR 0600 where certain of these  
5 assets were identified as needing to be reclassified from distribution to transmission as  
6 some system changes have occurred causing them to now be functionally transmission  
7 assets. Because moving these assets would require moving both capital and some amount  
8 of reserves and would additionally impact depreciation expense to some degree,  
9 quantifying this change for modeling in CCOSS is challenging. It appears to impact around  
10 \$7.6 million of capital, but the net book value impacted would be substantially less. I dollar  
11 average weighted the assets by vintage year and determined that the average vintage year  
12 on a dollar-weighted basis is approximately 1996. So, the issue of reserves is relevant. At  
13 this time, due to these complications, I have modeled the impact of allocating  
14 approximately \$71.5 million (the total capital value of the "TAPS" designated assets  
15 described above in this case) based on non-coincident peak at transmission voltage but  
16 have not modeled the impacts of approximately \$6 million (the capital value of the "TAPS"  
17 designated assets which should be transferred to transmission capital accounts) of that  
18 amount being functionalized as transmission capital, for the reasons stated above. When  
19 the impact is put into the model, it has the following impact on class share of revenue  
20 requirement, presented in Table 3.

1

**Table 3**

	<b>Total System</b>	<b>Residential</b>	<b>SGS</b>	<b>LGS/SPS</b>	<b>LPS</b>	<b>Lighting</b>
<b>Base Revenues - No Changes</b>	3,332,932,122	1,809,552,484	372,979,427	874,075,370	218,017,098	58,307,744
<b>Correction 2 Change</b>	3,332,932,122	1,808,347,852	372,960,334	875,079,657	218,373,868	58,170,411
<b>Correction 2 Difference</b>	-	(1,204,632)	(19,093)	1,004,287	356,770	(137,332)

2

3

**Q. Please further describe Correction 3 and quantify the impact of the**

4

**correction.**

5

A. Some assets recorded in distribution accounts support certain solar

6

facilities. As those assets serve to interconnect generation assets to the distribution system,

7

and don't exist for the explicit purpose of delivering power to end users, Staff has

8

previously pointed out and the Company agrees that those assets would be better allocated

9

based on production allocators than based on distribution allocators. Certain conditions

10

may exist on assets of this nature in the future that would cause the Company to evaluate

11

on a more case by case basis how similar assets might be more appropriately treated

12

differently. Please see the testimony of Company Witness Nicholas Phillips for additional

13

discussion of this topic.

14

Similar issues relate to this correction as those noted in correction 2. Specifically,

15

some amount of reserves relate to these assets which needs to be reclassified as generation

16

consistent with the underlying capital. These assets, however, have a dollar average

17

weighted vintage year of 2021. As the amount of the related reserves is not likely yet to

18

be significant, I modeled the impact by simply moving the capital between the distribution

19

accounts and production in the model. When this impact is put into the model, it has the

20

following impact on class share of revenue requirement, presented in Table 4.

1

**Table 4**

	<b>Total System</b>	<b>Residential</b>	<b>SGS</b>	<b>LGS/SPS</b>	<b>LPS</b>	<b>Lighting</b>
<b>Base Revenues - No Changes</b>	3,332,932,122	1,809,552,484	372,979,427	874,075,370	218,017,098	58,307,744
<b>Correction 3 Change</b>	3,332,932,122	1,809,536,413	372,978,897	874,088,126	218,022,014	58,306,673
<b>Correction 3 Difference</b>	-	(16,071)	(530)	12,756	4,916	(1,071)

2

3

**Q. Please further describe Correction 4 and quantify the impact of the**

4

**correction.**

5

A. Lighting capital and expenses were classified as demand-related in my

6

CCOSS. Staff appropriately pointed out that these costs should not be classified as

7

demand-related. The Company agrees that they are more appropriately classified as

8

customer-related. I do note, however, that this classification has essentially no noticeable

9

impact on intraclass allocations, as the lighting costs are allocated directly to the lighting

10

customer class. This could have a minor impact on the split of lighting revenue requirement

11

assigned to the customer-owned and company-owned lighting classes, but the Company

12

proposes no changes between those two classes in this case and this change does not impact

13

that proposal. When this impact is put into the model, it has the following impact on class

14

share of revenue requirement, presented in Table 5.

15

**Table 5**

	<b>Total System</b>	<b>Residential</b>	<b>SGS</b>	<b>LGS/SPS</b>	<b>LPS</b>	<b>Lighting</b>
<b>Base Revenues - No Changes</b>	3,332,932,122	1,809,552,484	372,979,427	874,075,370	218,017,098	58,307,744
<b>Correction 4 Change</b>	3,332,932,122	1,809,552,484	372,979,427	874,075,370	218,017,098	58,307,744
<b>Correction 4 Difference</b>	-	-	-	-	-	-

16

1 **Q. Please summarize the cumulative impact of Corrections 1 through 4.**

2 A. As with many things in CCOSS, iterative changes can have indirect impacts  
3 on other allocations. As a result, I created one final model that reflected all 4 changes noted  
4 above simultaneously. Please see Table 6 below for those combined impacts.

5 **Table 6**

	<b>Total System</b>	<b>Residential</b>	<b>SGS</b>	<b>LGS/SPS</b>	<b>LPS</b>	<b>Lighting</b>
<b>Base Revenues - No Changes</b>	3,332,932,122	1,809,552,484	372,979,427	874,075,370	218,017,098	58,307,744
<b>All Corrections Change</b>	3,332,932,122	1,810,045,425	372,912,368	873,356,852	218,215,088	58,402,389
<b>All Corrections Difference</b>	-	492,942	(67,059)	(718,517)	197,990	94,645

6

7 In summary, the four corrections have an extremely minor impact on overall  
8 allocations of revenue requirement – i.e., the change in the residential total cost of service  
9 from making all of the corrections associated with Staff's valid criticisms amounts to an  
10 imperceptible 0.03%. Further, the two largest impacts (an approximate \$500k increase for  
11 residential and an approximate \$700k reduction for the combined large general service and  
12 small primary service class) are directionally consistent with the Company's initial  
13 proposal. Please see the testimony of Company witness Nicholas Bowden for additional  
14 testimony relating to that initial class revenue requirement allocation proposal.

15 **V. RESPONSE TO STAFF'S CRITICISM OF PRODUCTION**

16 **ALLOCATIONS**

17 **Q. Staff asserts in rebuttal testimony that the Company used an incorrect**  
18 **measure of non-coincident peak demand in its A&E allocator. Do you agree?**

19 A. Staff's statement in rebuttal testimony was in response to a question about  
20 whether Large General Service ("LGS") and Small Primary Service ("SPS") customers are  
21 the same, "No. LGS customers rely on secondary distribution infrastructure, while SPS

1 customers do not." Staff further stated, "Ameren Missouri chose to add the hourly loads  
 2 of these two classes together prior to finding non-coincident peaks ("NCP") for the  
 3 combined classes, rather than to consistently find the NCPs for each class, calculate the  
 4 A&E allocator, and then sum the allocators for ease of study presentation. This approach  
 5 unreasonably reduces the allocation that is due to these classes under the A&E allocator."  
 6 Staff's argument is unconvincing. While Staff highlights that the difference between  
 7 customers in this class is the voltage at which they take service (which is an issue that  
 8 impacts the proper allocation of *distribution* costs), Staff presents no evidence that these  
 9 groups of customers are dissimilar in terms of their use of the *production* system, which is  
 10 more generally tied to things like relative size of load, time of use, and load factor. Thus,  
 11 Staff completely fails to provide any evidence in support of its criticism of the Company's  
 12 production allocator, which negates Staff's claim that our production cost allocation  
 13 approach is unreasonable or otherwise inappropriate. Regardless, I decided to do a brief  
 14 CCOSS scenario analysis to see the impact if one assumed that Staff's criticism had some  
 15 validity. To be clear, I disagree with the premise of this scenario, the impacts of which are  
 16 shown in Table 7.

17 **Table 7**

	<b>Total System</b>	<b>Residential</b>	<b>SGS</b>	<b>LGS/SPS</b>	<b>LPS</b>	<b>Lighting</b>
<b>Base Revenues - No Changes</b>	3,332,932,122	1,809,552,484	372,979,427	874,075,370	218,017,098	58,307,744
<b>Scenario 1 Change</b>	3,332,932,122	1,809,474,109	372,961,746	874,177,992	218,011,162	58,307,114
<b>Scenario 1 Difference</b>	-	(78,375)	(17,681)	102,622	(5,936)	(630)

18



1           What Table 7 tells us is that even if Staff's criticism had merit (it doesn't), the impact  
2           would be extremely low (i.e., a 0.004% impact on the total residential cost of service),  
3           demonstrating that the Company's rate proposal is in fact reasonable.

4           **Q.     Does this conclude your surrebuttal testimony?**

5           A.     Yes, it does.

