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MISSOURI PUBLIC SERVICE COMMISSION

FILE NO. ER-2024-0319

REBUTTAL TESTIMONY OF THOMAS HICKMAN ON BEHALF OF UNION ELECTRIC COMPANY D/B/A AMEREN MISSOURI

St. Louis, Missouri January 2025

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REBUTTAL TESTIMONY

OF

THOMAS HICKMAN

FILE NO. ER-2024-0319

	I. <u>INTRODUCTION</u>
Q.	Please state your name and business address.
А.	My name is Thomas Hickman. My business address is One Ameren Plaza,
1901 Choute	au Ave., St. Louis, Missouri.
Q.	Are you the same Thomas Hickman that submitted direct testimony in
this case?	
А.	Yes, I am.
Q.	To what testimony or issues are you responding?
А.	My rebuttal testimony responds to the reasonableness of Class Cost of Service
Studies ("CC	OSS") filed in this case. Specifically, I address concerns primarily relating to
allocations of	production, distribution, and overhead and administrative costs made by Staff. I
also address c	ertain apparent errors in Staff's CCOSS. Finally, I respond to Consumers Council
of Missouri's	("CCM") concerns about my workpapers.
II.	RESPONSE TO STAFF'S CLASS COST OF SERVICE STUDY
Q.	Before you get into the specific concerns you have with portions of Staff's
CCOSS, cou	ld you describe what is meant by allocations in the context of a CCOSS?
А.	As I stated in my direct testimony, allocation is the process of allocating certain
costs among	the Company's customer rate classes. Different types of costs are allocated
differently, w	ith the end goal of ensuring each customer class is assigned an appropriate portion
of the Compa	ny's total costs.
	Q. A. 1901 Choutes Q. this case? A. Q. A. Studies ("CC allocations of also address c of Missouri's II. Q. CCOSS, coul A. costs among differently, wa

1	Q.	Which of Staff's allocation methods do you believe are incorrect?
2	А.	I have concerns with Staff's production, pole and overhead device, and
3	administrativ	e and overhead cost allocations. I also have concerns with Staff's treatment of
4	"customer-sp	ecific infrastructure" and concerns with the customer count Staff used to represent
5	the Lighting	class.
6		A. Production Allocation
7	Q.	Do you find Staff's production allocations reasonable?
8	А.	I do not. The Company's application of the average and excess method remains
9	reasonable in	this case, and I struggle with a number of aspects related to Staff's production
10	allocations, i	ncluding layers of issues that may not be apparent on the face of the written
11	testimony. I	Please see the testimony of Company witness Nicholas Phillips for more detail
12	relating to pro	oduction allocations.
13		B. "Customer-Specific" Allocation
13 14	Q.	B. "Customer-Specific" AllocationWhat do you mean by "customer-specific" allocation?
13 14 15	Q. A.	 B. "Customer-Specific" Allocation What do you mean by "customer-specific" allocation? "Customer-specific" allocation is a direct assignment method which seeks to
 13 14 15 16 	Q. A. identify asset	 B. "Customer-Specific" Allocation What do you mean by "customer-specific" allocation? "Customer-specific" allocation is a direct assignment method which seeks to s (and their costs) that are viewed as serving a single individual customer.
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 13 14 15 16 17 18 19 	Q. A. identify asset Q. concept in the A.	 B. "Customer-Specific" Allocation What do you mean by "customer-specific" allocation? "Customer-specific" allocation is a direct assignment method which seeks to s (and their costs) that are viewed as serving a single individual customer. Did Staff allocate any costs consistent with their "customer-specific" his case? Yes. Staff allocated the cost of four substations identified as only currently
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 13 14 15 16 17 18 19 20 21 22 23 	Q. A. identify asset Q. concept in the A. serving a sing the cost of the Q. A	 B. "Customer-Specific" Allocation What do you mean by "customer-specific" allocation? "Customer-specific" allocation is a direct assignment method which seeks to a (and their costs) that are viewed as serving a single individual customer. Did Staff allocate any costs consistent with their "customer-specific" alio case? Yes. Staff allocated the cost of four substations identified as only currently de customer directly to the Large Primary Service ("LPS") class and proposed that ese substations be directly allocated to those customer's rate classes. Do you find those allocations reasonable? No. I do not believe they were reasonable for a few significant reasons. First,

1 serving one customer currently, there is information relevant to these substations that was not 2 requested. Most significantly, three of the four substations allocated to the LPS class by Staff 3 are currently serving Small Primary Service ("SPS") customers and not LPS customers.¹ That 4 makes Staff's direct assignment of these substations to the LPS class wholly inappropriate 5 because it assigns the full cost of these substations to a class that makes no use of them. 6 Additionally, the question in DR 601 only sought to understand whether a substation "supports 7 a single customer, a municipality with its own electric distribution utility, more than twelve 8 customers, or other explanation as to its use and purpose." This highlights a major challenge of 9 assets of this nature being directly assigned. 10 At a single point in time, an asset like the substations that Staff directly assigned may 11 only have a single customer connected to them – but that dynamic may and often does change 12 over time. I submit that Staff is using a snapshot view of the configuration of the system, which 13 is an inappropriate representation of that asset and ultimately the cost causation for that asset. 14 A substation may originally be built to serve two customers or even a customer and another 15 feeder with multiple smaller customers. Then a future event happens which causes the system 16 to be reconfigured. This could be the result of some engineering changes in the area or even the 17 result of a customer who was also being served by one of these substations going out of business. 18 In that situation, it is not appropriate to say that the reason the substation was built is to

exclusively serve a single customer. Or said another way, that customer did not *cause* the cost of the substation that was originally built for a significantly different system configuration and for more load than it currently serves. That customer class should not be directly assigned that cost.

¹ Only the Hudlin Park substation serves an LPS customer.

1 There are also situations where a substation was built and only connects one customer, 2 but it is designed to have some potential future benefit to the system for other customers. 3 Perhaps a single customer is connected to a substation initially, but it is in an area with 4 anticipated future growth or overloads, which that substation could be utilized to support, or it 5 may enable operating flexibility. This is the exact case with the Hudlin Park substation, which 6 represents almost all the substation cost Staff directly allocated in this case. It is currently only 7 serving a single LPS customer, but there is and has always been a plan to add load to that 8 substation beyond the single customer it is currently serving. The fact that, at this moment, the 9 substation only serves one customer does not make it appropriate to allocate it to that single 10 customer. Staff's methodology would result in the allocation of the costs of that substation 11 changing in a future rate case. First, Staff will allocate it to one class as if it serves a single 12 customer in one rate case (as it has done here) but then change assignment in a subsequent rate 13 case because an additional customer load is connected. That is a disruptive allocation method. 14 I would not imply that these types of questions are easy to answer or that the Company could 15 go asset by asset across the entire system and identify when things that serve single customers 16 were intended to only serve that single customer forever or not. I only intend to highlight how 17 challenging these questions are to answer and how simplifying them to the level of being 18 capable of being answered might lead to some inappropriate allocations. This is a very real and 19 compelling reason that direct assignment of most types of distribution infrastructure is not a 20 common practice in electric utility cost allocation studies, but rather appropriate allocation 21 factors are employed to ensure reasonable cost responsibility across a variety of use cases and 22 circumstances that may apply to various assets.

1 Q. You noted a few reasons for believing those customer-specific allocations 2 were not reasonable. Are there other reasons which make Staff's allocations 3 unreasonable?

4 A significant reason that "customer-specific" assignment is not reasonable is A. 5 that, without adjusting the allocation factors for the remaining, allocated, infrastructure, classes 6 may be over-allocated costs by being assigned the full costs of their particular infrastructure and 7 then being allocated an additional share of the infrastructure dedicated to or shared by other 8 classes. This can be highlighted if we step through an example of one of the four substations 9 that Staff directly assigned in this case. I started by creating a version of my CCOSS model with 10 one change, and that was allocating a single substation that was directly assigned to the LPS 11 class by Staff to the single customer this substation currently serves, which is actually an SPS 12 class customer. This substation has an original book cost of \$33,112.49. I ran my CCOSS 13 model, and the result was an increase to the required Base Revenues for the combined 14 SPS/Large General Service ("LGS") Class, the correct class this substation would be assigned 15 to absent Staff's error noted above, of \$2,538. All other classes received some level of decrease 16 as a result. Stopping at this step is essentially what Staff did. Staff identified a piece of equipment 17 being used by one customer and attempted to make sure the cost of that equipment was reflected 18 in that customer's class's allocation. But this approach only does half of what needs to be done 19 when directly assigning a single component out of a population of components that is otherwise 20 allocated on shared basis.

A second step is necessary. That is, one must identify how much the customer being served by the direct assignment asset contributes to the allocation factor applied to the remainder of the shared assets and remove their impact from that allocator. This step is necessary to avoid

5

1 double allocation of substation costs to the customer (and the class it is a part of) in question, 2 since the load of the customer that was directly assigned the costs of one substation that it is 3 presumed to have caused cannot also be presumed to also cause some share of the costs of the 4 remaining fleet of substations that necessarily must be serving only *other* customers. In this 5 case, using my model to highlight this example, remaining substations are allocated based on 6 Class Non-Coincident Peak Demand at High Voltage. I determined through review of Load 7 Research the specific hour in which this allocator was set for the SPS/LGS class. I then reviewed 8 interval load data for the specific customer being served by this substation, determining that 9 their hourly demand in this hour (at the level at which it is metered) was 3,109.92 kW. This 10 demand is metered at the primary level, so it needs to be grossed up by a loss factor to correctly 11 reflect the impact at High Voltage (i.e., to reflect distribution losses). That loss factor is 1.0132, 12 so this customer's contribution at the hour of their class's Non-Coincident Peak ("NCP") at 13 High Voltage ("HV") was set is 3,150.97 kW.

Using this information, I layered this modification to the allocator for substations into my CCOSS model and ran the model (i.e., I reduced the NCP of the LGS/SPS class by the 3,150.97 kW of demand that is fully served by the directly assigned substation). The resulting impact of both including the specific allocation of \$33,112.49 and removing the customer being served by that asset's contribution to the allocator resulted in a total *decrease* to the required Base Revenues of the combined class of \$58,811. An offsetting increase was experienced by other classes. See Table 1 below for summary of differences calculated: 1

	Total System	Residential	SGS	LGS/SPS	LPS	Lighting
Base Revenues - No Changes	3,332,932.122	1,809,552.484	372,979.427	874,075.370	218,017.098	58,307.744
Base Revenues - Specific Allocation	3,332,932.122	1,809,550.624	372,979.007	874,077.908	218,016.854	58,307.729
Difference (from No Changes)	-	(1.860)	(0.419)	2.538	(0.244)	(0.015)
Base Revenues - Specific Allocation and Demand						
Allocator Adjustment	3,332,932.122	1,809,595.569	372,989.146	874,016.559	218,022.758	58,308.090
Difference (from no Changes)	-	43.085	9.720	(58.811)	5.660	0.346

Table 1

Q. What does this analysis show?

2

3 It shows the ill effects of a partially implemented and incomplete cost allocation A. 4 concept. I think the underlying expectation Staff presents is that when a single asset serves a 5 single customer, direct assignment of the costs of that asset should cause that customer's class's 6 base revenues to increase. The opposite can often be true. See the testimony of Company 7 witness Nicholas Phillips for further discussion and examples where the opposite of this 8 expectation would be true. When you think about a distribution substation, most customers 9 served at primary voltage and below only ever need one such substation to exist on the path of 10 electricity from generation to that customer. By allocating that specific substation to a customer 11 (or in this case, their class), you've met the equipment needs of their underlying demand. Not 12 removing that underlying demand from the allocator of the rest of distribution substations, 13 results in double counting that customer's demand. It would be counted once in the specific 14 allocation, and then again, when allocating the portion of the remaining share of distribution substations. 15

1 This should not be taken to imply in all cases that this mathematical exercise of adjusting 2 the allocation factor will result in a decrease to required base revenues that is greater than the 3 increase caused by the specific allocation. This specific example is a unique condition where an 4 aged piece of equipment is still functioning and is providing adequate service to a higher load 5 customer. But even in the case where you have a larger newer investment in substations, 6 implementing the second step will at least always cause some marginal reduction to required 7 base revenues offsetting at least a portion of the increase arising from the specific assignment. 8 This is a condition not acknowledged at all by Staff's attempt at specific assignment and is a 9 significant issue with "customer-specific" assignments, in general, and particularly as 10 performed by Staff in this case.

11

O. If your mathematical example above addresses this issue, why can't this 12 exercise be completed on each attempt at "customer-specific" allocations?

13 A. This would be analytically burdensome and unlikely to improve the 14 usefulness of CCOSS. By Staff's own admission throughout the distribution allocation 15 section of Staff's testimony, there are much larger and more ambitious plans for "customer-16 specific" allocations in future rate cases. The Company is working diligently to provide 17 "customer-specific" distribution infrastructure information as ordered by the Commission 18 in the Company's most recent prior rate case (File No. ER-2022-0337), but that information 19 will only stand to support the first step of the allocation exercise I outlined above. Even 20 this step is proving to be labor and time intensive and costly to execute. The analysis 21 required to conduct direct assignment in an appropriate and unbiased way would also 22 require identifying every single unit of property that is only serving a single customer. 23 Consistent with arguments made above, this can only be done as a snapshot in time. The

1 distribution system configuration is constantly changing and evolving such that, by the 2 time we're able to provide any attempt at a system wide answer, the system has already 3 changed, and the analysis now looks different. Beyond that fact, an appropriate analysis 4 would also require that we simultaneously identify the customer being served in each 5 instance and determine their load contribution for each related allocator. We're talking 6 about contributions to several different allocators depending on the asset being looked at, 7 not just the one from the substation example. Even beyond just identifying those 8 contributions, in many cases, it would be necessary to also analytically apportion those 9 contributions.

10 Consider for example a residential customer that lives off a rural highway. There are a 11 number of primary voltage-carrying conductors held up by poles running down that rural 12 highway. At a certain point, the primary line splits off from the shared infrastructure and crosses 13 on to the customer's property - that line is "customer-specific infrastructure" related to a 14 residential customer that could be directly assigned under Staff's paradigm. After a run of that 15 primary line, a transformer is placed, and service run from that transformer to the customer's 16 meter. Even if we were able to identify the specific poles and wires that exist once the line leaves 17 the highway and is exclusively serving that one customer (which is a large lift that we have 18 undertook since our last rate review) and even if we were able to determine that customer's 19 demand and how much it contributes to the allocators of poles and wires (which is much larger 20 amount of analysis that no one has asked us to do, but which seems to be a necessary step for 21 properly implementing that paradigm - see the above example of substations), it would be 22 inappropriate to offset the shared allocator by that entire customer's demand. A portion of their 23 demand was served by shared infrastructure and a portion was served by the assets identified as

"customer-specific." Now you've created a situation in this one simple example where some mathematical analysis to subdivide their demand between how much was served by shared infrastructure and how much was served by specific infrastructure (which is an incredibly large lift that borders on sounding impossible in the context of electric rate cases). This is just not a practical or reasonable way to handle electric utility cost allocations and is a principal reason this approach Staff is taking is so far outside the boundaries of what other utilities are doing.

7

8

Q. Do you have any other concerns you would like to raise about Staff's use of "customer-specific infrastructure" in this case?

9 A. Yes. Staff quotes The National Association of Regulatory Utility 10 Commissioners ("NARUC") manual in footnote 37 of Staff Witness Sarah Lange's direct 11 testimony. I will reproduce the quote here for convenience. "Assignment or 'exclusive use' costs 12 are assigned directly to the customer class or group which exclusively use such facilities. The 13 remaining costs are then classified to the respective cost components."²

14 It is clear to me that *any* asset used by a single customer meets this definition, as a single 15 customer would only have one class and as such, that asset would be used exclusively by that 16 customer class or group. What makes this concept unreasonable is to apply it at the level which 17 Staff is attempting to apply it. Staff is **only** focusing on assets used by single customers. 18 However, this NARUC definition applies to far more than an asset only used by a single 19 customer. In other words, an asset or a series of assets could serve one LPS customer and that 20 is just as applicable in the NARUC definition as an asset or series of assets serving a subdivision 21 of residential customers. For example, if a primary voltage backbone distribution line is running 22 down a major roadway and a lateral line from this backbone runs off into a residential

² NARUC Electric Utility Cost Allocation Manual, at p. 87 (1992).

neighborhood where it only exists to serve residential customers, that lateral line (including
 multiple wires, poles, etc.) would also fit the NARUC definition above. Those facilities would
 exist to be used exclusively by the residential customer class.

4 This fact is a major reason that collecting "customer-specific" data for Staff is so 5 challenging. If the entire focus of this exercise is to ensure that small customers do not pay for 6 assets specifically serving large customers, there has been a complete blind eye turned against 7 assets exclusively serving small customers but that are being paid for, in part, by large 8 customers. This is why CCOSS so heavily rely on allocations using system average costs. It 9 may seem reasonable to request asset information for only very large customers and apply it in 10 the way Staff is proposing to, but this will undoubtedly bias results. The issue with this is that 11 collecting data on portions of circuits that exist in residential subdivisions is a step further and 12 exponentially more difficult than just identifying assets serving large customers.

13 Staff, in fact, goes on to state something like the following in each of its sections on 14 distribution cost allocation. "The inability to segregate poles that are customer-specific 15 infrastructure of a large customer other than the two taps lines identified in response to DR 16 0600...would tend to understate the revenue-responsibilities of the LPS and SPS classes, and 17 overstate the revenue responsibilities of the LGS, SGS, Residential, and Lighting classes."³ I 18 do not understand how Staff can make this statement. It is completely unknown at this time 19 whether small customers paying for a portion of infrastructure serving large customers is a 20 bigger issue than large customers paying for a portion of infrastructure serving small customers. 21 Staff's statement could turn out to be absolutely false, but it would require an incomprehensible 22 amount of analytical work to prove out system wide, one way or another. I strongly argue that

³ File No. ER-2024-0319, Direct Testimony of Sarah L.K. Lange, p. 29, ll. 11-16.

application of "customer-specific" data in the way Staff is proposing be heavily scrutinized and
 thrown out if it can't be utilized in a demonstrably unbiased way, contrary to what I described
 above.

4

C. Pole Allocations

5

6

Q. Do you have any concerns with other distribution allocations made by Staff? Please explain.

7 Yes, I have significant concerns with other distribution allocations made by A. 8 Staff. I especially have concerns with processes Staff used in its pole allocations. In testimony, 9 Staff attempted to address concerns that the minimum sized system has demand carrying 10 capabilities. The process Staff used to conduct this allocation is unclear, but I must point out an 11 error which is obvious even without a full understanding of what the mathematical logic in 12 Staff's analysis was intended to accomplish. First, Staff notes "In general, the Residential and 13 SGS classes were allocated more of each pole size through the minimum-system allocation than 14 indicated by demand responsibility."⁴ There are three tables that follow this statement, 15 representing a breakdown of poles into three categories of size inclusive of all poles. In each 16 one of those tables representing a different size breakout, the SGS Minimum System allocation in dollars is *less than* the SGS "Demand \$" allocation, in direct contradiction of Staff's statement 17 18 that the Residential and SGS classes were allocated more of each pole through the minimum-19 system allocation than indicated by demand responsibilities. In one of the three size breakouts, 20 the Residential Minimum System allocation in dollars is less than the Residential "Demand \$" 21 allocation. This is completely inconsistent with the text of Staff's testimony as quoted above. 22 Further, the result of Staff's attempt at blending minimum system and demand-based concepts

⁴ File No. ER-2024-0319, Direct Testimony of Sarah L.K. Lange, p. 28, ll. 14-16.

- 1 into a single allocator using some form of weighted averaging allocates Pole costs as shown in
- 2 Table 2.
- 3

Table 2

Poles	Wit	h Additional Demand Costs	Percent
Residential	\$	934,344,063	57.79%
SGS	\$	140,895,352	8.72%
LGS/SPS	\$	480,939,093	29.75%
LPS Combined	\$	51,809,350	3.20%
Lighting	\$	8,670,377	0.54%
Total	\$	1,616,658,235	100.00%

Compare this outcome of the allocation of the costs in the pole accounts to the following

5 table of the various individual allocations Staff uses in its pole allocation approach, as shown in

Table 3. 6

7

4

Table 3

	Customer Counts	Customer Counts	Demand at Secondary	Demand at Primary	Demand at Subtrans.
Residential	1,093,765	87.3485%	60.42%	51.14%	49.66%
SGS	145,315	11.6049%	13.49%	12.00%	10.78%
LGS/SPS	11,364	0.9075%	25.54%	32.68%	31.66%
LPS Combined	67	0.0054%	0.00%	3.64%	7.73%
Lighting	1,675	0.1337%	0.55%	0.55%	0.17%
	1,252,186	Customer Counts	NCP 4 Summer at Secondary	NCP 12 at Primary	CP 12 at HV

8 The SGS allocation of poles using this weighted approach (8.72%) is lower than Staff's 9 allocation basis would be using either demand (somewhere between 13.49% and 10.78% 10 depending on the voltage composition of poles) or customer (11.61%). This is not 11 mathematically possible and represents a clear error in process. There is simply no reasonable 12 or rational way to blend two different allocation methodologies and come up with an allocation

that is lower than what would be produced by either of the allocation factors if used on a
 standalone basis. Staff's result is completely nonsensical. This fact alone indicates that Staff's
 pole allocations cannot be trusted in this case.

Further, I note that for each of the different sized poles, Staff allocates a total amount of
cost that is dramatically different than the total value of those poles. Using values from Staff's
workpapers for clarity, poles with heights less than 40 foot have a value of \$215,310,785, yet
Staff allocates \$288,269,930 for these poles. Poles with a height of 40 foot have a value of
\$409,631,632, yet Staff allocates \$548,707,166 for these poles. Finally, poles with a height over
40 feet have a value of \$586,147,759, yet Staff allocates \$455,733,059 for these poles. Again,
this is not grounded in logic and supports an inability to trust Staff's pole allocations.

11

D. Overhead Conductor and Device Allocations

12 Q. Do you have any concerns with Staff's Overhead Conductor and Devices 13 allocations?

A. Yes. In reviewing Staff's zero-intercept calculation for wires, I realized that Staff had misassigned the ampacity rating of #4 Aluminum Wire to #4 Copper Wire. The ampacity rating for #4 Copper Wire was not available in the data request Staff referenced. In Table 4, I updated the zero-intercept calculation Staff performed by replacing the Copper #4 quantity and dollars (and average dollars per foot) with the appropriate values for Aluminum #4 and got the following results:



Table 4

Note, this change resulted in a change to the minimum-intercept value from \$0.3384 per foot utilized by Staff to \$0.3908 per foot as shown above. This change would result in an increase to the customer related portion of wires from approximately \$90.4 million to approximately \$104.4 million, which would change the basis of allocation of that approximately \$14 million that was inappropriately classified as demand-related.

Q. Do you have any concerns about Staff's allocations of Underground 8 Conductor and Devices?

9 A. I have the same concern noted above where Staff treats the customer-classified 10 portion as if it was entirely primary, however, the underground system has substantially less 11 Sub Transmission voltage, so the scale of the impact of the issue is relatively small and not of 12 significant note.

1

E. 1 Administrative and Overhead Costs Allocations 2 0. How does Staff allocate Administrative and Overhead costs? Do you agree 3 with Staff's approach? 4 A. Staff proposed to allocate administrative and overhead costs on the basis of 5 energy sales, justifying that choice by citing those energy sales as the basic product of an electric 6 utility. Staff also performs a separate calculation where Staff allocated administrative and 7 overhead costs on the basis of each class's share of net rate base and administrative and overhead 8 expenses on each class's share of net expenses. I think this separate calculation is considerably 9 more appropriate. Before the step in CCOSS allocation in which administrative costs are being 10 allocated is conducted, prior steps in the CCOSS have already been conducted in which the 11 appropriate cost causative allocations for all other costs and expenses have been determined. 12 Staff's chosen approach for administration and overhead cost allocation is nothing but an over-13 simplification that just ignores all of that detailed work that went into functionalizing and 14 classifying costs in order to allocate them according to causative factors in favor of a single 15 factor, i.e., the "basic product" of energy sales, which we know from the rest of the CCOSS is 16 not the proper allocation factor for many of the assets and activities of the Company based on 17 cost causation. The administrative and overhead function supports all of those other cost 18 components of a CCOSS, including those that were properly allocated by customers or demand. 19 Said another way, the Company's administrative functions such as the human resources 20 department, for example, are engaged in supporting the parts of the business that operate power 21 plants, those that build, operate and maintain the distribution system, those that run energy 22 trading operations, and every other business function conducted by the electric utility. To solely 23 allocate those administrative costs on an energy basis implies that those costs only support, or 24 are caused by, the functions of the business whose costs were otherwise allocated on an energy

1	basis. Staff's approach is effectively saying that, for example, despite the fact that a significant
2	source of cost and expense is a distribution system representing the ability of the Company to
3	deliver energy to customers and which Staff allocated on the basis of number of Customers and
4	Demands at various levels, the administrative costs and expenses that support that distribution
5	system in large part, should be simplified down to only being allocated on the basis of energy.
6	I do not agree with this at all. I believe Staff did appropriate work to come up with an appropriate
7	allocator - the alternative allocator that Staff developed based on the allocation of all of the rate
8	base and expenses of the other business functions - but then ignored that allocator in favor of its
9	recommendation to use an over-simplified allocator that ignores the cost causative factors
10	driving large portions of the business supported by administrative functions.
11	F. Lighting Class Customer Count
12	Q. Did Staff use the correct count of Lighting Class customers?
13	A. No, Staff used a Lighting Class customer count of 1,675. The correct count
14	of Lighting Class customers is 55,322. It appears to me that Staff likely used a number to
15	represent Lighting Class customers that only reflected Lighting Class customers that
16	receive a customer charge. I do not see any rationale in Staff's testimony for this change,
17	especially given that they used the same approximate 55,000 to represent the number of
18	Lighting Class customers as I did in the prior electric rate case (ER-2022-0337), based
19	upon a review of their workpapers in that filing. Without any additional support, this
20	appears to be an error.
21	Q. What impact does this error have?

A. It is difficult for me to model a precise numerical impact in Staff's workpapers, given so many values flow from one workpaper to another as hard-coded values. In general, underrepresenting the number of customers in a class will cause them to be allocated less customer-related costs, especially those represented in distribution allocations. I believe this under representation has a direct impact on Staff's proposal to reduce Lighting Class rates and makes it unreasonable to be relied upon in this case.

4 5

III. <u>RESPONSE TO OTHER PARTIES' CLASS COST OF SERVICE</u> <u>STUDIES</u>

6

Q. Do you have any concerns with any specific allocations made by any other parties?

A. Yes. In principle, I disagree with the use of the Basic Customer Method for allocation of distribution costs supported by CCM witness Caroline Palmer. For more information on what is typically seen for distribution allocations in other jurisdictions and some specific concerns related to this approach, see the testimony of Company Witness Nicholas Phillips. Consistent with his testimony, however, I note CCM's agreement with our overall rate proposal despite this different supported approach.

13 Q. Do you have any other concerns with the testimony of CCM witness14 Palmer?

A. Yes. Witness Palmer asserts in direct testimony that my CCOSS model does not update with inputs. The version of my model filed and provided to CCM in data requests is the same exact file I utilize to process all of my own inputs. After reading this direct testimony, I had a conversation with Witness Palmer confirming that this was caused by Ms. Palmer missing a step in operating the spreadsheet related to a macro. I believe that after going through this step together, the file provided the type of complete results CCM was looking for and understand that Ms. Palmer will confirm this in surrebuttal.

22

Q. Can you please summarize your rebuttal testimony?

A. In summary, I continue to believe the Company has proposed a reasonable set
of allocations supporting a reasonable CCOSS for consideration of the Commission in this case.

1	I find Staff's production allocators unintuitive and unreasonable. I also find many aspects of
2	their distribution allocations to be unintuitive, unreasonable, and to contain some errors. I
3	believe Staff's proposal for Administrative and Overhead to also be inappropriate. I would
4	encourage the Commission to consider all of these issues as detailed in my testimony and the
5	testimony of Company witness Phillips in determining whether Staff's CCOSS is reasonable to
6	adopt or for consideration in this case.

7 Q.

Does this conclude your rebuttal testimony?

8 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-2024-0319

AFFIDAVIT OF THOMAS HICKMAN

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STATE OF MISSOURI)) ss **CITY OF ST. LOUIS**)

Thomas Hickman, being first duly sworn states:

My name is Thomas Hickman and on my oath declare that I am of sound mind and lawful age; that I have prepared the foregoing Rebuttal Testimony; and further, under the penalty of perjury, that the same is true and correct to the best of my knowledge and belief.

> /s/ Thomas Hickman Thomas Hickman

Sworn to me this 16th day of January, 2025.