Exhibit No.:

Issue(s): Estimated billing intervals

Witness: J Luebbert Sponsoring Party: MoPSC Staff

Type of Exhibit: Surrebuttal / True-Up Direct

Testimony

Case No.: ER-2024-0261

Date Testimony Prepared: September 17, 2025

MISSOURI PUBLIC SERVICE COMMISSION

INDUSTRY ANALYSIS DIVISION

TARIFF/RATE DESIGN DEPARTMENT

SURREBUTTAL / TRUE-UP DIRECT TESTIMONY

OF

J LUEBBERT

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

CASE NO. ER-2024-0261

Jefferson City, Missouri September 2025

1		SURREBUTTAL / TRUE-UP DIRECT TESTIMONY	
2		OF	
3		J LUEBBERT	
4 5		THE EMPIRE DISTRICT ELECTRIC COMPANY, d/b/a Liberty	
6		CASE NO. ER-2024-0261	
7	Q.	Please state your name and business address.	
8	A.	My name is J Luebbert and my business address is 200 Madison Street,	
9	Jefferson City Missouri, 65101.		
10	Q.	Are you the same J Luebbert that filed direct testimony in this case on	
11	July 21, 2025?		
12	A.	Yes. However, my direct testimony regarding Large Load Customer Service	
13	was subsequently stricken in response to an Empire motion. For purposes of administrativ		
14	efficiency, I have attached a copy of my credentials and case history to this testimony a		
15	Schedule JL-s1.		
16	Q.	What is the purpose of your true-up direct testimony?	
17	A.	My testimony will address issues with Empire's billing system as they relate to	
18	time-based rates.		
19	Q.	Are you familiar with the billing issues that have been addressed within the	
20	context of thi	s case.	
21	A.	Although I have not written testimony in this case on the topic of billing issues,	
22	members of my department have been struggling with the accuracy of the data that Empire ha		
23	provided throughout the course of this case, either through workpapers or through discovery.		

Is Staff confident with the level of accuracy associated with the billing 1 Q. 2 determinants that have been provided by Empire throughout this case? 3 A. No. Ultimately, Staff has to rely upon the information that is provided by 4 Empire because Staff does not have access to Empire systems. The number of revisions to data 5 and corrections to "raw" data prior to normal rate case adjustments causes concern for the 6 accuracy of the determinants provided. 7 Q. Are you aware of the investigatory docket concerning Empire's rollout of its 8 new billing system. 9 A. I am. I have been involved in several meetings and phone conferences with 10 Empire personnel to discuss the issues that have arisen since the initial roll-out. As part of those 11 discussions, Staff learned that Empire separately delineates bill estimations based upon a self-imposed threshold of Advanced Metering Infrastructure ("AMI") interval data retention in 12 13 a given month. I will address that issue within this testimony. 14 Q. How would discrepancies in billing determinant data impact the result of this 15 general rate case? 16 A. Discrepancies in billing determinant data can impact the result of this case in at 17 least the following ways: 18 1. Inaccurate billing determinants create unnecessary errors when determining 19 rates as a result of the Commission ordered revenue requirement which could 20 result in rates being set inappropriately high or low; 21 2. The billing errors in this case highlight the importance of Commission attention to the overall revenue requirement as opposed to focusing on the 22

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meter reads over much longer time periods.

- "revenue requirement increase" due to the perceived inaccuracy of calculated 1 2 rate revenue; 3 3. Inaccuracy in billing determinants may cause unreasonable revenue allocation 4 shifts if not considered carefully; and 5 4. Liberty may have inaccurately reported the revenue that it should have received 6 based upon billing issues, indicating that an artificially larger revenue 7 requirement increase is necessary, all else being equal. 8 Q. Did other Staff witnesses address billing determinants in this case? 9 A. Yes. Several other Staff members addressed billing determinants through 10 testimony in this case including Kim Cox, Marina Gonzales, and Randall T. Jennings. 11 Several other Staff members testified to adjustments to the starting billing determinants 12 that were included in Staff's final billing determinants as well, including Justin Tevie, 13 Hari K. Poudel, PhD and Michael L. Stahlman. 14 **ESTIMATED BILLING** 15 Q. What is AMI interval data? AMI interval data includes, among other information, usage data that is read by 16 A. 17 a given meter sub-hourly. This information provides a much more granular view of customer 18 usage during discrete time periods when compared to older meter technology that provided
 - Q. Why is AMI interval data important in this case as it relates to Empire's billing system roll-out.

A. AMI interval data is utilized by Empire's meter data management system ("MDMS") to provide billing determinants that are ultimately used by Empire to bill its ratepayers. Most of Empire's ratepayers are on a time choice rate plan¹ that includes an off-peak credit for all usage consumed during off-peak periods (i.e. 10:00PM – 6:00AM). In addition, Empire also offers a time choice plus rate plan² which is billed at on-peak and off-peak.³ Since most of Empire's customers are on a time-based rate, accurate time-based readings are necessary for accurate customer bills, and ultimately accurate billing determinants. At times, a substantial number of interval readings are being estimated. Furthermore, the timing of customer usage will also have a direct impact on the billing determinants that Empire utilizes to justify its rate increase request and those determinants that it provides other parties of this case.

Q. How does Empire identify customer bills that are estimated based upon missing interval data?

A. Based on discussions with Empire, at this time bills that are missing register reads (i.e. either the starting or ending usage for the billing period is missing) or if any more than 85% of the interval data in a given month will be identified as a billing exception. My understanding is that these bills would then be clearly identified as an estimated bill, both within the Empire billing system and on the actual customer bill.

¹ The time choice plan is billed the same rate for all kWh during the summer season (that is the first four monthly billing periods on and after June 16) and a rate for the first 600 kWh during the winter season (that is the remaining eight months) and a different rate for all additional kWh.

² Empire has a small percent of customers on the time choice plus rate plan.

³ Summer on-peak is June 1 through September 30, 2pm-7pm and summer off-peak is all other hours. Winter on-peak is all other months, 6am to 9am and 6pm to 9pm and winter off-peak is all other hours.

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a later date upon further review.

1 Q. How does Empire calculate bills that are missing less than 85% of the 2 interval data? 3 A. My understanding is that bills that are missing less than 85% of the interval data 4 are automatically calculated using a software function. This means that Empire's system will 5 automatically calculate usage across time intervals for up to 85% of the billing period intervals. Q. 6 Has the 85% of missing interval data threshold been consistently utilized by 7 Empire through the time periods considered in this case? 8 A. No. My understanding is that Empire modified its internal procedures at some 9 point throughout the course of this rate case. 10 Q. Does your testimony address the inaccuracies in billing determinants that are 11 identified by Empire as "estimated"? 12 A. No. While those estimated bills would ultimately impact the accuracy of billing 13 determinants and calculated rate revenue, my testimony will address inaccuracies that could be 14 introduced through Empire's threshold of 85% of missing interval data. 15 Q. Has Staff issued any discovery to Empire regarding the practice of automatically 16 estimating the usage intervals on a bill without accounting for the bill as "estimated"? 17 A. Yes. I have attached Empire's partial responses to Staff Data Requests 0481 18 through 0484 to this testimony as Confidential Schedule JL-s2. Empire also followed up with 19 a few excel files that included sample data for some of the rate codes in its system. 20 Unfortunately, as of writing this testimony, Staff has not had enough time to review the data in

order to incorporate the information in its position. Staff may evaluate updating its position at

data threshold?					
A.	Not formally. In discussions with Empire employees, references to other				
utilities util	utilities utilizing some sort of threshold for automatic estimation has been raised, but concret				
evidence or justification has yet to be provided.					
Q.	What authority does Empire have to unilaterally impose a 85% threshold for				
estimated bills?					
A.	I don't know. Empire's currently effective tariff does not include such a				
threshold.	In fact, Empire's currently effective tariff includes the following provisions				
concerning estimated bills: ⁴					
	c. Under no circumstances shall Company render a bill based on estimated usage:				
	(1) Unless the estimating procedures employed by the Company and any substantive changes to those procedures have been approved by the Commission; and				
	(2) As a Customer's initial or final bill for service unless conditions beyond the control of the Company prevent an actual meter reading;				
	d. When Company renders an estimated bill in accordance with these rules, it shall:				
(1) Maintain accurate records of the reasons therefor and the effort made to secure an actual reading; and					
(2) Clearly and conspicuously note on the bill that it is based on estimated usage; and					
	(3) Use Customer supplied readings, whenever possible, to determine usage				
	[Emphasis added.]				
4 P.S.C. Mo. 1	No. 6, Sec. 5, Original Sheet No. 24 and 25.				
	A. utilities util evidence or Q. estimated b A. threshold. concerning				

- 1 Empire's currently effective estimated reading procedure provides no reference to missing
- 2 | interval data or time periods related to time-based rates. To the extent that Empire is providing
- 3 bills that are based upon estimated usage, Empire should be complying with the currently
- 4 effective tariff provisions.

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- Q. Do any other Commission regulated electric utilities include reference to
- 6 interval data estimation within the currently approved estimation procedures?
 - A. Yes. Ameren Missouri's currently effective tariff includes references to interval data estimation.⁵
 - Q. What is Staff's recommendation concerning the estimation of up to 15% of interval usage?
 - A. Staff recommends a revenue imputation of \$1,998,148.
 - Q. How did Staff calculate the proposed revenue imputation?
 - A. Due to lack of better information, Staff assumed that 15% of all off-peak discounts included in the Staff normalized and annualized revenue be removed.⁶ Without better information regarding the time periods of interval estimation, the worst case scenario would have been to assume 85% of the off-peak discounts.
 - Q. Would Staff have preferred to make a more precise adjustment recommendation?
 - A. Yes. However, as I stated earlier in my testimony, Staff is reliant upon information provided by Empire to make informed recommendations to the Commission.

⁵ See MO.P.S.C. Schedule No. 6 Sheet Nos. 131 through 131.2.

⁶ Staff did not include the time choice plus rate plan in the calculation of the revenue imputation.

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- Staff's position is based upon Empire's inability to provide the specific information included in Confidential Schedule JL-s2.

 O. Is Staff's understanding of the 85% of missing interval data threshold obtained
 - Q. Is Staff's understanding of the 85% of missing interval data threshold obtained through verbal communication with Empire personnel consistent with Empire's response to Staff Data Request 0164 in Case Number OO-2025-0233.
 - A. No. Empire's response to that data request, attached to this testimony as Schedule JL-s3, indicates that no such threshold exists and that bills are only delineated as estimated if the end register read is estimated.
 - Q. Is Staff's understanding of the 85% threshold consistent with Empire's response to Staff Data Request 0481 and Staff Data Request 0484 in this case?
 - A. No. It appears that even if that threshold is exceeded manual estimation may be occurring.
 - Q. Is it possible that Staff's proposed revenue imputation is too low?
 - A. Based on Empire's recent response to Staff data requests, it is possible. It appears that Empire may be estimating a much larger portion of interval data without logging the information as an exception or marking the bills as estimated. Staff is concerned that Empire's reported level of bill estimation may be much lower than what is actually occurring. Furthermore, Empire may be violating the requirement in its currently effective tariff regarding notice of estimation.
 - Q. Does Staff have any additional recommendations on this subject?
 - A. Yes. Staff recommends that the Commission order Empire to:

1 1. Justify its practice of applying a threshold for delineating estimated bills and file 2 a tariff case with the Commission. 3 2. Include a marker on bills that include estimations across billing time period 4 thresholds and file a report with the Commission and Staff on the level of 5 revenue that gets estimated. 3. Provide the requested data included in data requests attached as 6 7 Confidential Schedule JL-s2 to inform the Commission's decision on the 8 outcome of this case. 9 4. Request approval of estimation processes with appropriate justification and 10 require formalization of those processes in the Empire tariff. 11 5. Modify its system to recover actual usage data from missing intervals that span 12 across time-of-use periods for all rate codes that utilize a time-based pricing 13 structure. 14 Q. Does this conclude your surrebuttal / true-up direct testimony? 15 Yes it does. A.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

AFFIDAVIT O	F J L	UEBBERT
in Its Missouri Service Area)	
for Electric Service Provided to Customers)	
Authority to File Tariffs Increasing Rates)	
District Electric Company d/b/a Liberty for)	Case No. ER-2024-0261
In the Matter of the Request of The Empire)	

STATE OF MISSOURI) ss. COUNTY OF COLE)

COMES NOW J LUEBBERT and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Surrebuttal / True-Up Direct Testimony of J Luebbert*; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

J LUEBBERT

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 9th day of September 2025.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: April 04, 2029
Commission Number: 12412070

Motary Public

Credentials and Background of J Luebbert

I have a Bachelor of Science degree in Biological Engineering from the University of Missouri. My work experience prior to becoming of member of the Missouri Public Service Commission Staff includes three years of regulatory work for the Missouri Department of Natural Resources.

I am currently employed as the manager of the Tariff/Rate Design Department of the Industry Analysis Division of the Missouri Public Service Commission Staff. Prior to holding my current position, I was employed as Case Manager of the Commission Staff Division, Associate Engineer of the Engineering Analysis Department of the Industry Analysis Division, and as a Utility Engineering Specialist III in the Energy Resources Department of the Commission Staff Division. I have been employed at the Missouri Public Service Commission since March 2016 and am responsible for preparing staff recommendations and ensuring that Staff presents recommendations in a neutral, independent manner to inform the Commission of Staff's position and possible alternatives.

Case Participation of J Luebbert

Case Number	Company	Issues
EO-2015-0055	Ameren Missouri	Evaluation, Measurement, and Verification
EO-2016-0223	Empire District Electric Company	Integrated Resource Planning Requirements
EO-2016-0228	Ameren Missouri	Utilization of Generation Capacity, Plant Outages, and Demand Response Program
ER-2016-0179	Ameren Missouri	Heat Rate Testing
ER-2016-0285	Kansas City Power & Light Company	Heat Rate Testing

Case Number	Company	Issues
EO-2017-0065	Empire District Electric Company	Utilization of Generation Capacity and Station Outages
EO-2017-0231	Kansas City Power & Light Company	Utilization of Generation Capacity, Heat Rates, and Plant Outages
EO-2017-0232	KCP&L Greater Missouri Operations Company	Utilization of Generation Capacity, Heat Rates, and Plant Outages
EO-2018-0038	Ameren Missouri	Integrated Resource Planning Requirements
EO-2018-0067	Ameren Missouri	Utilization of Generation Capacity, Heat Rates, and Plant Outages
EO-2018-0211	Ameren Missouri	Avoided Costs and Demand Response Programs
EA-2019-0010	Empire District Electric Company	Market Protection Provision
GO-2019-0115	Spire East	Policy
GO-2019-0116	Spire West	Policy
EO-2019-0132	Kansas City Power & Light Company	Avoided Cost, SPP resource adequacy requirements, and Demand Response Programs
ER-2019-0335	Ameren Missouri	Unregulated Competition Waivers and Class Cost Of Service
ER-2019-0374	Empire District Electric Company	SPP resource adequacy
EO-2020-0227	Evergy Missouri Metro	Demand Response programs
EO-2020-0228	Evergy Missouri West	Demand Response programs
EO-2020-0262	Evergy Missouri Metro	Demand Response programs
EO-2020-0263	Evergy Missouri West	Demand Response programs
EO-2020-0280	Evergy Missouri Metro	Integrated Resource Planning Requirements
EO-2020-0281	Evergy Missouri West	Integrated Resource Planning Requirements
EO-2021-0021	Ameren Missouri	Integrated Resource Planning Requirements
EO-2021-0032	Evergy	Renewable Generation and Retirements
GR-2021-0108	Spire Missouri	Metering and Combined Heat and Power
ET-2021-0151	Evergy	Capacity costs
ER-2021-0240	Ameren Missouri	Market Prices, Construction Audit, Smart Energy Plan, AMI
ER-2021-0312	Empire District Electric Company	Construction Audit, Market Price Protection, PISA Reporting

Cont'd J Luebbert

Case Number	Company	Issues
EO-2022-0193	Empire District Electric Company	Retirement of Asbury
ER-2022-0129	Evergy Missouri Metro	MEEIA annualization
ER-2022-0130	Evergy Missouri West	MEEIA annualization, Schedule SIL revenue and incremental costs
EF-2022-0155	Evergy Missouri West	Customer event balancing
EC-2022-0315	Evergy Missouri West	Compliance with Stipulation and Agreement, Commission Order, and Schedule SIL
GR-2022-0179	Spire Missouri	Compressed Natural Gas
EA-2022-0244	Ameren Missouri	Huck Finn Solar CCN
EA-2022-0245	Ameren Missouri	Boomtown Solar CCN
EA-2022-0328	Evergy Missouri West	Persimmon Creek CCN
ER-2022-0337	Ameren Missouri	Billing determinant adjustments
EA-2023-0286	Ameren Missouri	Solar CCNs
EO-2024-0002	Evergy Missouri West	Data retention
	Evergy Missouri Metro	
EO-2023-0136	Ameren Missouri	MEEIA program design, avoided costs
EO-2023-0369	Evergy Missouri Metro	MEEIA program design, tariffs
EO-2023-0370	Evergy Missouri West	
EA-2024-0237	Ameren Missouri	Economic Feasibility
EA-2024-0292	Evergy Missouri West	Economic Feasibility and Decisional Prudence
EA-2025-0075	Evergy Missouri West	Economic Feasibility and Decisional Prudence
EA-2025-0087	Ameren Transmission Company of Illinois	Economic Feasibility

Case No. ER-2024-0261

SCHEDULE JL-s2

HAS BEEN DEEMED

CONFIDENTIAL

IN ITS ENTIRETY



Liberty Utilities Case No. 00-2025-0233

Missouri Public Service Commission Data Request - 0164

Data Request Received: 2025-08-05 Response Date: 2025-09-09

Request No. 0164 Witness/Respondent: Candice Kelly

Submitted by: Tyrone Thomason, Tyrone.Thomason@psc.mo.gov

REQUEST:

This data request applies to all Empire/Liberty utilities.

In response to DR 0216.6 in the ER-2024-0261 case, the Company indicated that the only time bills are marked as estimated is if the end register read is estimated. However, Staff's understanding from the response to DR 0191.1 in the same case is that the bill is marked as estimated if more than 15% of the interval reads are missing. Please explain the apparent discrepancy between these two statements. If the policy for marking a bill as estimated has changed since the response to DR 0191.1, please explain the change(s).

RESPONSE:

The only time bills are marked as estimated is if the end register read is estimated. The response to DR 0191.1 needs to be clarified/corrected as that was a plan discussed that was not implemented.