Exhibit No.: Issue(s): Rate Design Witness: Hari K Poudel, PhD Sponsoring Party: MoPSC Staff Type of Exhibit: Direct Testimony Case No.: ER-2024-0319 Date Testimony Prepared: December 17, 2024

# **MISSOURI PUBLIC SERVICE COMMISSION**

## **INDUSTRY ANALYSIS DIVISION**

## **TARIFF AND RATE DESIGN DEPARTMENT**

**DIRECT TESTIMONY** 

OF

# HARI K. POUDEL, PhD

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

Case No. ER-2024-0319

Jefferson City, Missouri December 17, 2024

1	DIRECT TESTIMONY			
2	OF			
3	HARI K. POUDEL, PhD			
4 5	UNION ELECTRIC COMPANY, d/b/a AMEREN MISSOURI			
6	Case No. ER-2024-0319			
7				
8	Q. Please state your name and business address.			
9	A. My name is Hari K. Poudel, and my business address is P.O. Box 360, Jefferson			
10	City, Missouri, 65102. Are you the same Hari K. Poudel that provided direct testimony in this			
11	case on December 3, 2024??			
12	A. Yes.			
13 14 15	EXECUTIVE SUMMARY         Q.       What is the purpose of your direct Rate Design testimony?         A.       The purpose of my direct testimony is to identify the tariffs which will require			
16	updating as part of the compliance tariffs in this case. These updates consist of:			
17	1. Missouri Energy Efficiency Investment Act ("MEEIA") net margin			
18	rates ("NMR"),			
19	2. Community Solar Energy Rates, and			
20	3. Standby Service Rider Rates.			
21	RATE DESIGN			
22	Q. What are the NMR rates?			

### Direct Testimony of Hari K Poudel, PhD

1 The NMR is one of the elements that goes into the Energy Efficiency Investment A. 2 Charge ("EEIC") Rider calculation in each general rate case. Prior to the widespread use of 3 time-based rates, total usage by class and by month were the key drivers of marginal rate 4 calculations.<sup>1</sup> With wide-spread time-based rate structures, it is more important to calculate 5 marginal rates by time-based rates. With a Time-Of-Use ("TOU") rate structure, the rate 6 differential no longer occurs based primarily upon the total usage in a given month, but rather 7 the time of day that an individual customer uses energy. As customer adoption of higher 8 differential rates increases, the need for NMR by rate plan also increases.

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Q. Do net marginal rates vary based on the various rate plans?

10 A. Yes. Ameren Missouri's customers are grouped into several classes, with each 11 class receiving service under a different rate schedule. Ameren Missouri has multiple active 12 rate schedules with different energy charges per kWh within each rate class. Ameren Missouri's 13 current tariff includes several residential time-based rate schedules. TOU rates are rate 14 structures in which customers pay different prices at different times of the day. TOU rates are 15 usually divided into multiple blocks per 24-hour period and can be seasonally adjusted. In a 16 TOU rate structure, higher prices are charged during utility peak-load times, and such rates can 17 provide an incentive for consumers to curb electricity use during peak times. On-peak prices 18 are higher and off-peak prices are lower than they would be for a flat rate, based on season, day 19 of week, and time of day.

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Q. What updates to MEEIA net margin rates are appropriate for the compliance tariffs in this case?

<sup>&</sup>lt;sup>1</sup> The NMR is the difference between the wholesale cost of the energy for a given kWh sold at retail and the marginal retail rate for that kWh of energy. The marginal rate is the retail price of a unit of energy not sold due to Ameren Missouri's facilitation of customer-funded demand-side programs.

### Direct Testimony of Hari K Poudel, PhD

1 The MEEIA net margin rates set out on Tariff Sheet 91.7 require updating for A. 2 the final rates by class, and final billing determinants by class. Additionally, the current tariff 3 sheet may require separate NMRs by rate plan by month since a majority of Ameren Missouri 4 residential customers are now served on time-based rate structures. The MEEIA NMRs for each 5 applicable service classification set out on Tariff Sheet 91.7 require updating for the final rates 6 by month and by class as part of the compliance tariff filing. These NMR rates will need to be 7 calculated to coincide with the final billing determinants used to calculate the compliance rates 8 for service and the final rates for service. This is consistent with the Non-Unanimous 9 Stipulation and Agreement approved by the Commission on November 14, 2024, in 10 Case No. EO-2023-0136, allowing Ameren Missouri to recover the Throughout Disincentive 11 for MEEIA 4 through the Rider EEIC."<sup>2</sup>

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Q. What updates to Community Solar Energy ("CSP") rates are appropriate for the compliance tariffs in this case?

The community solar rate schedules need to be updated so that charges on a 14 A. 15 given customer's bill are prorated by season consistent with the application of seasonal rates 16 for that customer on their standard rate schedule as reflected in the company's revenues. 17 The CSP service is only available to full service electric customers currently served by 18 Ameren Missouri under either Residential Service or Small General Service tariffs. The Rider 19 CSP facilities rates set out on Tariff Sheet 89.4 need to be increased by the percentage increase 20 applicable to residential energy charge elements and SGS energy charge elements, respectively. 21 Q. What updates to the Community Solar Pilot Program's ("CSPP") solar block

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monthly charges are appropriate for the compliance tariffs in this case?

<sup>&</sup>lt;sup>2</sup> EO-2023-0136 Non-Unanimous Stipulation and Agreement, Page 8

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A. The CSPP service is only available to full service electric customers currently
 served by Ameren Missouri under either Residential Service or Small General Service tariffs.
 The Rider CSPP facilities rates for Residential Service and SGS customers set out at
 Tariff Sheet 158.4 need to be increased by the percentage increase applicable to residential
 energy charge elements and SGS energy charge elements, respectively.

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Q. What updates to the Standby Service Rider ("SSR") are appropriate for the compliance tariffs in this case?

A. The SSR set out on Tariff Sheet 92.3 requires updating consistent with the
underlying rate schedules. Standby Service is supplied to premises by Ameren Missouri in the
event of the customer (Large General Service, Small Primary Service, and Large Primary
Service) exceeding its Supplemental Contract Capacity. The Standby Service may be needed
on either a scheduled or unscheduled basis.

## 13 CONCLUSION

Q. Does this conclude your direct testimony?

A. Yes. It does.

#### **BEFORE THE PUBLIC SERVICE COMMISSION**

#### **OF THE STATE OF MISSOURI**

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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 HARI K. POUDEL, PhD

SS.

STATE OF MISSOURI ) COUNTY OF COLE

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 Direct 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 \_\_\_\_\_\_ day of December 2024.

D. SUZIE MANKIN Notary Public - Notary Seal State of Missouri **Commissioned for Cole County** My Commission Expires: April 04, 2025 Commission Number: 12412070

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Notary Public

# Hari K. Poudel

#### **Present Position**

Currently, I work for the Missouri Public Service Commission ("Commission") as a Regulatory Economist in the Tariff/Rate Department of the Industry Analysis Division. The Department of Tariff and Rate Design takes part in and offers advice on matters filed with the Commission, such as rate, complaint, application, territorial agreements, sale, and merger. The department also handles rate design, weather variables, and weather normalization tasks and offers technical assistance. I am responsible for using quantitative economic techniques and statistical analysis to address energy-related challenges that have an effect on utility ratemaking. I am also responsible of recommendations for the Commission based on a various economic analysis of the problems relating to energy and energy efficiency.

#### **Educational Credentials and Work Experience**

I received a Doctor of Philosophy in Public Policy from the University of Missouri, Columbia, Missouri in May 2020. I graduated with a Master's in Public Health from the University of Missouri, Columbia in May 2019. In 2008, I received a Master's in Agricultural Economics degree from Hohenheim University in Germany.

I've been employed with the Missouri Public Service Commission since October 25, 2021, in the Tariff/Rate Department of the Industry Analysis Division as a Regulatory Economist. Prior to joining the Commission, I was a Research/Data Analyst for the Missouri Department of Health and Senior Services. I analyzed public health data that directly affects Missourians in my capacity as an analyst.

## **Testimonies/Memorandum**

SN	Case Number	Company Name	Issue
1.	GR-2021-0320	Liberty Utilities	Tariff Compliance
2.	GR-2022-0235	Spire Missouri, Inc.	Weather Normalization Adjustment Rider (WNAR)
3.	ER-2022-0146	Ameren Missouri	Rider Energy Efficient Investment Charge (EEIC)
4.	GT-2022-0233	Liberty Utilities	Weather Normalization Adjustment Rider (WNAR)
5.	ER-2022-0129 & ER-2022-0130	Evergy Metro, Inc. & Evergy Missouri West, Inc.	General Rate Case
6.	ER-2022-0337	Ameren Missouri	365-Day Adjustment, Weather Variables, Weather Normalization, Hourly Load Requirement Energy Efficiency Adjustment
7.	GO-2023-0002	Spire	Weather Normalization Adjustment Rider (WNAR)
8.	GT-2023-0088	Liberty Utilities	Weather Normalization Adjustment Rider (WNAR)
9.	GT-2023-0274	Liberty Utilities	Weather Normalization Adjustment Rider (WNAR)
10.	EA-2023-0286	Ameren Missouri	Economic Feasibility
11.	GT-2024-0054	Liberty Utilities (Midstates Natural Gas)	Weather Normalization Adjustment Rider (WNAR)
12.	GT-2024-0055	The Empire District Gas Company	Weather Normalization Adjustment Rider (WNAR)
13.	GR-2024-0107	Ameren Missouri	Weather Normalization Adjustment Rider (WNAR)
14.	EO-2023-0136	Ameren Missouri	Throughput Disincentive, Marginal Rate Analysis, Rebound Effect, Rate Case Annualization
15.	EO-2023-0369 & EO-2023-0370	Evergy Metro, Inc. & Evergy Missouri West, Inc.	MEEIA (Throughput Disincentive, Rebound Effect, Rate Case Annualization)
16.	ER-2024-0189	Evergy Missouri West, Inc.	MEEIA, Net Margin Rate, Economic Development Riders, PISA Compliance
17.	GR-2024-0106	Liberty Utilities	Weather Normalization, 365 Days-Adjustment