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MISSOURI PUBLIC SERVICE COMMISSION

INDUSTRY ANALYSIS DIVISION

TARIFF AND RATE DESIGN DEPARTMENT

DIRECT TESTIMONY

OF

HARI K. POUDEL, PhD

EVERGY MISSOURI WEST, INC.,

d/b/a Evergy Missouri West

CASE NO. ER-2024-0189

Jefferson City, Missouri
June 27, 2024

**** Denotes Confidential Information ****

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DIRECT TESTIMONY OF
HARI K. POUDEL, PhD**

**EVERGY MISSOURI WEST, INC.,
d/b/a Evergy Missouri West
CASE NO. ER-2024-0189**

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1 **EXECUTIVE SUMMARY**

2 Q. What is the purpose of your direct testimony?

3 A. The purpose of this direct testimony is to support Staff's adjustments to energy
4 usage as they pertain to Evergy Missouri West's ("EMW") Missouri Energy Efficiency
5 Investment Act ("MEEIA") portfolios, which are then applied to the level of current revenues,
6 billing determinants, and Net System Input ("NSI") of EMW. I will also support Staff
7 adjustments to Economic Development Riders Discount Projections, which are then applied to
8 rate design.

9 Q. Through this testimony, do you provide any adjustments to be applied to the
10 level of current revenues, billing determinants, and Net System Input ("NSI")?

11 A. Yes. This testimony includes an adjustment to current revenues based on
12 MEEIA and Economic Development Rider ("EDR") credits through the update period.

13 Q. Through this testimony, do you describe the development of the work product
14 that you provided to another Staff witness for the development of an issue?

15 A. Yes. I provide the annualized energy savings by rate class by month for the Staff
16 update period to Staff witnesses Kim Cox and Marina Stever to determine appropriate revenue
17 adjustments to include in the overall revenue requirement. Additionally, a 12-month projection
18 of the EDR credit was compiled for Staff witness Sarah Lange for rate design.

19 **MEEIA RATE CASE ANNUALIZATION**

20 Q. What adjustments did you calculate with respect to the EMW MEEIA portfolio?

21 A. I calculated annualized energy savings for EMW based upon reported savings¹
22 from energy efficiency measures that were installed during the update period. Staff annualized

¹ DR 263 ER-2024-0189.

1 the level of energy efficiency savings that occurred at the end of the update period as if they
2 had occurred throughout the year, which is consistent with the Staff approach in EMW's last
3 general rate case, Case No. ER-2022-0130. Staff utilized the data provided by EMW in this
4 analysis. I provided the annualized energy savings by rate class by month for the Staff update
5 period to Staff witnesses Kim Cox and Marina Stever to determine appropriate revenue
6 adjustments to include in the overall revenue requirement. The annualized energy savings are
7 incorporated into the normalized and annualized usage for EMW, which Staff witness
8 Michael L. Stahlman included in his calculation of NSI.

9 Q. Why did Staff include the annualized MEEIA adjustments to the energy usage
10 for each rate class for the update period?

11 A. Through the course of the general rate case, the net throughput disincentive
12 ("NTD")² component of EMW's Demand-Side Investment Mechanism ("DSIM") needs to be
13 rebased to zero. The reduction of energy usage from each rate class' energy usage based on this
14 adjustment allows the net throughput disincentive to be rebased.

15 **NET MARGINAL RATES**

16 Q. What is the net marginal rate ("NMR")?

17 A. The NMR is the difference between the wholesale cost of the energy for a given
18 kWh sold at retail and the marginal retail rate for that kWh of energy.

19 Q. Why are you addressing NMR in this general rate case?

² NTD means the electric utility's lost margin revenues that result from decreased retail sales volumes due to its demand-side programs. The TD rate has been approved by the commission to provide the utility with recovery of net throughput disincentive based on the approved TD component of DSIM.

1 A. Each general rate case performs net marginal rate analysis in accordance with a
2 Commission Order.³ NMR is performed in conjunction with each general rate case because
3 marginal rates are a function of base electric rates, which are set in each general rate case.
4 Considering the current rate of adoption of the Time-of-Use (“TOU”) rate structures in EMW’s
5 territory, it appears that the historical NMR calculation mechanism may not be suitable for
6 accurately representing the rate differences based on time and season. It seems appropriate to
7 perform NMR analysis considering various rate codes and seasons.

8 Q. Does Evergy Missouri West calculate the NMR analysis on a rate code basis?

9 A. No. Evergy Missouri West’s historical NMR analysis does not calculate the
10 NMR on a rate code basis. Evergy Missouri West's Tariff Sheet No. 138.8 presents the net
11 margin revenue rates for each rate class by month.

12 Q. Does the current rate differential exist primarily based on the total usage in a
13 given month?

14 A. With a TOU rate structure, the rate differential no longer occurs based primarily
15 upon the total usage in a given month but rather the time of day that an individual customer
16 uses energy. Complex rate codes may necessitate separate NMRs for each rate code and
17 time period.

18 Q. Do net marginal rates vary based on the rate class?

19 A. Yes. Generally, Evergy Missouri West groups its customers into several classes,
20 each of which purchases its electricity service under a distinct rate schedule. EMW has multiple
21 active rate schedules with different rate codes per kWh within each rate class.
22 Generally speaking, blocked rate structures include distinct rates for energy based upon the

³ Case No. ER-2022-0130, Report and Order, p. 13

1 level of billed energy usage, i.e., one rate for all usage up to 1000 kWh and a second rate for
2 usage exceeding 1000 kWh. Evergy Missouri West's current tariff includes multiple residential
3 TOU rate structures in which customers pay different prices at different times of the day.
4 On-peak prices are higher and off-peak prices are lower than they would be for a flat rate,
5 based on season, day of week, and time of day.

6 Q. Why do you think that it is necessary to change the existing NMR analysis
7 mechanism?

8 A. EMW residential customers are on a rate plan where their usage is dependent on
9 the time of day. Therefore, using the historical NMR analysis is unlikely to be either precise or
10 accurate in the context of the TOU rate structures offered to its residential customers.
11 Therefore, it is necessary to change the existing NMR analysis mechanism.

12 Q. Did Evergy Missouri West provide a NMR analysis to support the proposed
13 rates in direct testimony in this case?

14 A. No. Evergy does not intend to conduct this analysis prior to a Commission order
15 in this case.

16 Q. Why is EMW's approach to NMR analysis problematic?

17 A. NMR directly affects the rates charged to ratepayers through the DSIM. EMW's
18 approach does not allow for an appropriate level of review or scrutiny. Furthermore,
19 the widespread participation in time-based rates increases the complexity of any NMR analysis.
20 To date, Evergy Missouri West has not provided analysis, nor testimony, in this case addressing
21 how to account for the relationship between the time-based rates and the NMR.

22 Q. Do you believe the Staff's concerns about Evergy Missouri West's current NMR
23 should be taken into consideration by the Commission?

1 A. Yes. First, almost all of Evergy Missouri West's residential customers are on a
2 time-based rate schedule, and EMW has fully implemented its AMI (“Advanced Metering
3 Infrastructure”) meter infrastructure. Based on the present rate schedules, it is necessary to
4 develop dozens or hundreds of time-based net margin rates, which may involve complex
5 studies. Due to this complexity, distinct net margin rates by rate code and time period could be
6 needed, which EMW does not currently provide. Second, Staff has proposed a net throughput
7 disincentive (“NTD) alternative that is simpler to administer and implement and does not rely
8 on estimations of net margin rates.⁴ Additionally, the method works better with time-based
9 systems. It is more likely that NTD will be overestimated or underestimated if an incorrect
10 NMR is used in the calculation. In light of this, Staff concludes that utilities should consider
11 Staff’s approach about its current NMR calculation mechanism. Staff’s approach discussed in
12 this filing is consistent with the approach Staff is taking with Union Electric Company
13 d/b/a Ameren Missouri.⁵ Finally, Staff recommends that if EMW’s NTD mechanism continues,
14 that the Commission order EMW to provide all NMR analysis within direct testimony in future
15 general rates cases.

16 **ECONOMIC DEVELOPMENT RIDER ADJUSTMENTS**

17 Q. Please explain Evergy Missouri West’s Economic Development Rider
18 discount program.

19 A. Evergy Missouri West’s EDR offers electric bill discounts to new or expanding
20 industrial customers meeting certain Rider criteria. Eligible customers receive an EDR discount
21 applied to base rates over a five-year term. Optional riders are available to new or expanding

⁴ Case Nos. EO-2023-0369 & EO-2023-0370.

⁵ Case No. EO-2023-0136.

1 customers with special circumstances, such as the Urban Core Development Rider offering
2 discounts to customers in designated urban areas, or the Limited Large Customer Rider for
3 customers in this rate class. All discounts are directed by tariff guidelines and agreed upon by
4 the customer and EMW in a written agreement. Discounts are applied as a direct credit or
5 reduction to the customer's utility bill.

6 Q. How does Staff review EDR discounts?

7 A. All active participant applications, customer/utility agreements, and monthly bill
8 samples were reviewed by Staff for tariff compliance as part of this rate case. Customer EDR
9 applications and agreements are also regularly reviewed by Staff independent of rate cases.

10 Q. How is the cost of the discounts recovered by Evergy Missouri West?

11 A. With each rate case, Evergy Missouri West submits an EDR Credit for discounts
12 provided to customers utilizing this incentive. Staff adds the amount to Revenues, thereby
13 reducing Revenues. This is the cost of discount which is allocated among all customer classes
14 through rates as an adjustment to Revenue Requirement per 393.1640, RSMo. Evergy Missouri
15 West's test year EDR Credit is ** [REDACTED] **. **

16 Staff also prepared 12-month EDR credit projections for Evergy Missouri Metro
17 ("EMM") for rate design purposes. EMM'S projected EDR credit is ** [REDACTED] **. **

18 Q. What are Staff's findings in this rate case?

19 A. Through reporting and sample billing reviews, Staff concludes that
20 Evergy Missouri West is generally complying with the tariffs guiding these discount programs.

21 **PLANT IN SERVICE ACCOUNTING RATE CAP**

22 Q. Please describe Plant-In-Service Accounting ("PISA") treatment i
23 EMW's general rates.

1 A. For electric utilities electing PISA treatment for 85% of expenses related to plant
2 in service, an annual rate increase cap is in place.

3 Q. Are EMW's proposed rates over the PISA rate cap?

4 A. Staff is reviewing base revenue at this time and does not currently expect
5 any issues.

6 **CONCLUSION AND RECOMMENDATION**

7 Q. Do you have any recommendations if the historical NMR calculation
8 mechanism continues as used in the previous rate cases?

9 A. Yes. I recommend that the NMR calculation mechanism require separate NMRs
10 by rate codes and by time periods because EMW residential customers are on a rate plan where
11 their usage is dependent on the time of the day. Therefore, using the historical NMR analysis is
12 unlikely to be either precise or accurate if the historical NMR calculation mechanism continues
13 as used in the previous rate cases. The applicability of the issue with EMW regarding NMR
14 analysis can be experienced with Evergy Missouri Metro in future cases.

15 Q. Does this conclude your direct testimony?

16 A. Yes it does.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Evergy Missouri West, Inc.)
d/b/a Evergy Missouri West's Request for) Case No. ER-2024-0189
Authority to Implement A General Rate)
Increase for Electric Service)

AFFIDAVIT OF HARI K. POUDEL, PhD

STATE OF MISSOURI)
) ss.
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 24th day of June 2024.

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



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 rigorous economic analyses of the problems relating to energy.

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	MEEIA