BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

)

)

)

In the Matter of Evergy Metro, Inc. d/b/a Evergy Missouri Metro's 2024 Annual Reliability Report Pursuant to 20 CSR 4240-23.010

File No. EO-2025-____

In the Matter of Evergy Missouri West, Inc. d/b/a Evergy Missouri West's 2024 Annual Reliability Report Pursuant to 20 CSR 4240-23.010

File No. EO-2025-____

NOTICE OF COMPLIANCE FILING

COMES NOW, Evergy Metro, Inc. d/b/a Evergy Missouri Metro ("EMM") and Evergy

Missouri West, Inc. d/b/a Evergy Missouri West ("EMW") (collectively, "Evergy" or the

"Company") and pursuant to 20 CSR 4240-23.010 submit their respective 2024 Annual Reliability

Reports to the Missouri Public Service Commission ("Commission").

WHEREFORE, the Company submits the attached to the Commission.

Respectfully submitted,

<u>|s| Roger W. Steiner</u>

Roger W. Steiner MBN#39586 Evergy, Inc. 1200 Main Street, 17th Floor Kansas City, Missouri 64105 Telephone: (816) 556-2314 E-mail: <u>Roger.Steiner@evergy.com</u>

ATTORNEY FOR EVERGY MISSOURI METRO AND EVERGY MISSOURI WEST

CERTIFICATE OF SERVICE

I hereby certify that a true and copy of the foregoing application was emailed on this 1st day of May 2025, to the Office of the General Counsel and the Office of the Public Counsel.

|s| Roger W. Steiner

Roger W. Steiner



Evergy Missouri West 2024 Reliability Performance Report

Annual reporting completed pursuant to 20 CSR 4240-23.010

April 1, 2025

Table of Contents

| 20 CSR 4240.23.010 (1), (3), (4) – Reliability Statistics 2024 | 2 |
|--|---|
| Table 1: Evergy Missouri West Reliability Indices | 2 |
| Table 2: Evergy Missouri West MAIFI (monthly values) | 3 |
| Table 3: Evergy Missouri West CEMI (monthly values) | 3 |
| 20 CSR 4240-23.010 (6), (7) – Highest 5% SAIFI Circuits Assessment | 3 |
| Table 4: Highest 5% SAIFI Circuit4 - | 5 |
| 20 CSR 4240-23.010 (8) - Multi Year Worst Performing Circuit Reporting | 5 |
| Table 5: Multi-Year Worst Performing Circuit Report | 5 |

| Month SAID 1 8.33 2 3.84 3 5.92 4 15.31 5 11.55 6 14.63 7 8.37 8 11.69 9 8.87 10 15.17 11 11.45 12 3.69 Total 118.8 10 15.17 11 11.45 12 3.69 Total 118.8 Month SAID 1 27.60 2 3.84 3 5.92 4 32.43 5 111.3 6 25.76 7 48.44 8 11.69 9 8.87 | 0.088 0.073 0.077 0.077 0.154 5 0.109 | 94.34 52.54 76.83 99.45 | CAIFI 1.21 1.11 1.05 |
|---|---|--|---|
| 1 8.33 2 3.84 3 5.92 4 15.31 5 11.55 6 14.63 5 11.55 6 14.63 9 8.87 10 15.17 11 11.45 12 3.69 Total 118.8 Month SAID 1 27.60 2 3.84 3 5.92 4 32.43 5 111.3 6 25.76 7 48.44 8 11.69 9 8.87 | 0.088 0.073 0.077 0.077 0.154 5 0.109 | 94.34 52.54 76.83 99.45 | 1.21 1.11 |
| 2 3.84 3 5.92 4 15.31 5 11.55 6 14.63 7 8.37 8 11.69 9 8.87 10 15.17 11 11.45 12 3.69 Total 118.8 1 27.60 2 3.84 3 5.92 4 32.43 5 111.3 6 25.76 7 48.44 8 11.69 9 8.87 | 0.073 0.077 0.154 0.154 | 52.54 76.83 99.45 | 1.11 |
| 3 5.92 4 15.31 5 11.55 6 14.63 7 8.37 8 11.69 9 8.87 10 15.17 11 11.45 12 3.69 Total 118.8 1 27.60 2 3.84 3 5.92 4 32.43 5 111.3 6 25.76 7 48.44 8 11.69 9 8.87 | 0.077 0.154 0.109 | 76.83 | |
| 4 15.31 5 11.55 6 14.63 7 8.37 8 11.69 9 8.87 10 15.17 11 11.45 12 3.69 Total 118.8 Month SAID 1 27.60 2 3.84 3 5.92 4 32.43 5 111.3 6 25.76 7 48.44 8 11.69 9 8.87 | 1 0.154 5 0.109 | 99.45 | 1.05 |
| 5 11.55 6 14.63 6 14.63 7 8.37 8 11.69 9 8.87 10 15.17 11 11.45 12 3.69 Total 118.8 Month SAID 1 27.60 2 3.84 3 5.92 4 32.43 5 111.3 6 25.76 7 48.44 8 11.69 9 8.87 | 5 0.109 | | |
| 6 14.63 Adjusted 7 8.37 8 11.69 9 8.87 10 15.17 11 11.45 12 3.69 Total 118.8 Month SAID 1 27.60 2 3.84 3 5.92 4 32.43 5 111.3 6 25.76 7 48.44 8 11.69 9 8.87 | | 106 10 | 1.26 |
| Adjusted 7 8.37 8 11.69 9 8.87 10 15.17 11 11.45 12 3.69 Total 118.8 1 27.60 2 3.84 3 5.92 4 32.43 5 111.3 6 25.76 7 48.44 8 11.69 9 8.87 | 3 0.113 | 106.40 | 1.21 |
| 3 3 8 11.69 9 8.87 10 15.17 11 11.45 12 3.69 Total 118.8 MonthSAID 1 27.60 2 3.84 3 5.92 4 32.43 5 111.3 6 25.76 7 48.44 8 11.69 9 8.87 | / 0.115 | 129.84 | 1.22 |
| 9 8.87 10 15.17 11 11.45 12 3.69 Total 118.8 Month SAID 1 27.60 2 3.84 3 5.92 4 32.43 5 111.3 6 25.76 7 48.44 8 11.69 9 8.87 | 0.091 | 91.70 | 1.12 |
| 10 15.17 11 11.45 12 3.69 Total 118.8 Month SAID 1 27.60 2 3.84 3 5.92 4 32.43 5 111.3 6 25.76 7 48.44 8 11.69 9 8.87 | 9 0.127 | 92.32 | 1.11 |
| 11 11.45 12 3.69 Total 118.8 Month SAID 1 27.60 2 3.84 3 5.92 4 32.43 5 111.3 6 25.76 7 48.44 8 11.69 9 8.87 | 0.104 | 85.33 | 1.15 |
| 12 3.69 Total 118.8 Month SAID 1 27.60 2 3.84 3 5.92 4 32.43 5 111.3 6 25.76 7 48.44 8 11.69 9 8.87 | 7 0.154 | 98.79 | 1.12 |
| Total 118.8 Month SAID 1 27.60 2 3.84 3 5.92 4 32.43 5 111.3 6 25.76 7 48.44 8 11.69 9 8.87 | 5 0.094 | 121.34 | 1.08 |
| Month SAID 1 27.60 2 3.84 3 5.92 4 32.43 5 111.3 6 25.76 7 48.44 8 11.69 9 8.87 | 0.066 | 55.79 | 1.05 |
| 1 27.60 2 3.84 3 5.92 4 32.43 5 111.3 6 25.76 7 48.44 8 11.69 9 8.87 | 2 1.250 | 95.08 | 1.15 |
| 2 3.84 3 5.92 4 32.43 5 111.3 6 25.76 7 48.44 8 11.69 9 8.87 | I SAIF | I CAIDI | CAIFI |
| 3 5.92 4 32.43 5 111.3 6 25.76 7 48.44 8 11.69 9 8.87 | 0.185 | 149.08 | 1.38 |
| 4 32.43 5 111.3 6 25.76 7 48.44 8 11.69 9 8.87 | 0.073 | 52.54 | 1.11 |
| 5 111.3 6 25.76 7 48.44 8 11.69 9 8.87 | 0 077 | 76.83 | 1.05 |
| Unadjusted 6 25.76 7 48.44 8 11.69 9 8.87 | 0.077 | 119.87 | 1.25 |
| Unadjusted 7 48.44 8 11.69 9 8.87 | | 365.94 | 1.26 |
| 8 11.69 9 8.87 | 3 0.271 | 505.94 | 1.23 |
| 9 8.87 | 30.27120.304 | | 1.23 |
| | 30.27120.30450.177 | 145.75 | 1.23 |
| | 3 0.271 2 0.304 5 0.177 4 0.215 | 145.75 224.84 | |
| 10 15.17 | 3 0.271 2 0.304 5 0.177 4 0.215 9 0.127 | 145.75 224.84 92.32 | 1.22 |
| 11 11.45 | 3 0.271 2 0.304 5 0.177 4 0.215 9 0.127 0.104 | 145.75 224.84 92.32 85.33 | 1.22 1.11 |
| 12 3.69 | 3 0.271 2 0.304 5 0.177 4 0.215 9 0.127 0.104 7 0.154 | 145.75 224.84 92.32 85.33 98.79 | 1.22 1.11 1.15 |
| Total 306.1 | 3 0.271 2 0.304 5 0.177 4 0.215 9 0.127 0 0.104 7 0.154 5 0.094 | 145.75 224.84 92.32 85.33 98.79 121.34 | 1.22 1.11 1.15 1.12 |

20 CSR 4240.23.010 (1)(A), (B), (C), (D), and (3) – Reliability Statistics 2024 Table 1: Evergy Missouri West Reliability Indices

Excludes the following 2024 storm dates from the normalized data: Jan 9, Apr 16, Apr 24, May 19, May 20, May 25, May 26, Jun 8, Jun 26, Jul 2, Jul 16, and Jul 31

| Month | Monthly MAIFI |
|-------|----------------------|
| 1 | 0.030 |
| 2 | 0.083 |
| 3 | 0.127 |
| 4 | 0.308 |
| 5 | 0.179 |
| 6 | 0.098 |
| 7 | 0.067 |
| 8 | 0.027 |
| 9 | 0.011 |
| 10 | 0.118 |
| 11 | 0.045 |
| 12 | 0.016 |

Table 2: Evergy Missouri West 2024 MAIFI

Table 3: Evergy Missouri West 2024 CEMI-6

| Month | Monthly CEMI-6 |
|-------|----------------|
| 1 | 0.000000 |
| 2 | 0.000000 |
| 3 | 0.000003 |
| 4 | 0.000415 |
| 5 | 0.000689 |
| 6 | 0.000712 |
| 7 | 0.000636 |
| 8 | 0.002937 |
| 9 | 0.002678 |
| 10 | 0.003986 |
| 11 | 0.004164 |
| 12 | 0.001759 |

20 CSR 4240-23.010 (6), (7) - Highest 5% SAIFI Circuits Assessment

System hardening patrols and repairs are planned to complete in the 2nd, 3rd, and 4th Quarters of 2025. For circuits where analysis is required, a systematic patrol plan is developed based on identified outage causes. When and where feasible, repairs are made during the initial patrol. Tree patrols will be performed where indicated and spot trimming performed as needed. Other maintenance, modifications, or upgrades not completed during the initial patrol will be completed by the end of the 4th Quarter of 2025. Table 4 lists circuits identified as having the highest 5% of adjusted SAIFI statistics in 2024, as outlined in 20CSR 4240.23.010 (6).

Table 4: Highest 5% SAIFI Circuits

| Service Center | Substation Circuit Action Plan | | Action Plan | SAIFI | SAIDI |
|-------------------|--|--------------------------------------|---|--------|----------|
| Lee's Summit | KC SOUTH #271 | 271012023 | WPC due to poor performing lateral fuse F16447. Execute lateral hardening work order. | 18.326 | 1,707.89 |
| Platte City | WESTON #438 | 438025012 | Execute mainline hardening work order on Weston – Platte City 25KV loop. | 7.618 | 726.53 |
| Maryville | MARYVILLE #407 | 407034441 | Execute mainline hardening work order. | 7.000 | 508.00 |
| Henrietta | LEXINGTON 69KV #285 | 285012013 | No action planned. WPC due to planned outage work improving the electric system. | 6.276 | 541.86 |
| Clinton | OSCEOLA #315 | 315012013 | Execute mainline hardening work order. | 5.947 | 811.77 |
| Henrietta | LEXINGTON No action planned. WPC due to planned | | 5.883 | 425.92 | |
| Platte City | POPE LANE #321 | 321025011 | Execute mainline hardening work order on Pope Lane – Platte City 25KV loop. | 5.260 | 651.79 |
| Clinton | DEEPWATER #232 | 232012011 | No action planned. WPC due to planned outage work improving the electric system. | 4.999 | 749.80 |
| Henrietta | NORBORNE #310 | 310012011 | No action planned. WPC due to planned outage work improving the electric system. | 4.766 | 206.23 |
| St. Joseph | MUDDY CREEK #414 | 414012011 | No action planned. WPC due to Substation incident. Repairs completed at the time of the incident. | 4.581 | 451.10 |
| Clinton | DEEPWATER #232 | No action planned WPC due to planned | | 4.488 | 689.97 |
| Maryville | GRANT CITY #396 | 396012012 | Execute 34KV source c407034441 mainline hardening work order. | 4.481 | 439.02 |
| Warrensburg | STRASBURG #360 | 360012011 | Execute planned project for Ralph Green 34KV source. | 4.456 | 360.64 |
| Blue Springs | SIBLEY 161KV #351 | 351012012 | Execute mainline hardening work order. | 4.366 | 551.70 |
| Henrietta | NORBORNE #310 | 310012012 | No action planned. WPC due to planned outage work improving the electric system. | 4.318 | 118.29 |
| Maryville | GRANT CITY #396 | 396012011 | Execute 34KV source c407034441 mainline hardening work order. | 4.259 | 456.74 |
| Lee's Summit | RALPH GREEN #326 | 326012011 | Execute mainline hardening work order. | 4.249 | 514.90 |
| Maryville | villePARNELL #418418012011Execute 34KV source c407034441 mainline hardening work order. | | 4.218 | 387.61 | |
| Warrensburg | WINDSOR #381 | 381012012 | Execute mainline hardening work order. | 4.174 | 485.58 |

| Service Center | Substation | Circuit | Action Plan | SAIFI | SAIDI |
|-------------------|--|-----------|--|-------|--------|
| Lee's Summit | WESTERN ELECTRIC #376 | 376012041 | Execute mainline hardening work order. | 4.169 | 317.08 |
| Trenton | BLYTHEDALE- EAGLEVILLE #216 | 216012012 | Execute planned project for 34KV Cainsville–Ridgeway line rebuild. | 4.121 | 487.34 |
| Trenton | CAINSVILLE #218 | 218004012 | Execute planned project for 34KV Cainsville–Ridgeway line rebuild. | 4.067 | 312.94 |
| Warrensburg | Warrensburg CONCORDIA 69/34KV #228 2280 | | No action planned. WPC due to planned outage work improving the electric system. | 4.059 | 274.99 |

20 CSR 4240-23.010 (8) - Multi-Year Worst Performing Circuit Reporting

The referenced rule requires a plan and schedule to lower SAIFI metrics on circuits that are listed on the highest 5% SAIFI list for two out of three of the preceding years. Table 5 reflects the action plans identified to lower the SAIFI metric for these circuits. Evergy engineering plans to issue corrective action work orders scheduled for completion during the 3^{rd} and 4^{th} Quarters of 2025. Additional patrols and root cause analysis, where required, are planned to be completed in the 4th Quarter of 2025.

Service GATEL GATE **G I** 4 4 **C·** · · · A . 4 DI

Table 5: Multi-Year Worst Performing Circuit Report

| Years | Center | Substation | Circuit | Action Plan | SAIFI | SAIDI |
|--------------|---------------|------------------|-----------|---|-------|----------|
| 2024 2022 | Mound City | TARKIO #430 | 430012022 | Execute mainline hardening work order on the on Tarkio – Phelps City 12KV loop. | 7.431 | 420.48 |
| 2024 2022 | Maryville | WORTH #434 | 434012011 | Execute 34KV source c407034441 mainline hardening work order. | 6.755 | 1,099.33 |
| 2024 2022 | Mound City | Phelps City #638 | 638012511 | Execute mainline hardening work order on the on Tarkio – Phelps City 12KV loop. | 5.307 | 340.65 |