



**Evergy Missouri Metro
2022 Reliability Performance Report**

Annual reporting completed pursuant to 20 CSR 4240-23.010

April 28, 2023

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20 CSR 4240.23.010 (1)(A), (B), (C), (D), and (3) – Reliability Statistics 2022

Table 1: Evergy Missouri Metro Reliability Indices

2022		MO Metro
Total Customers (Meter Counts)		305,383
Adjusted	SAIFI	1.25
	SAIDI	111.27
	CAIDI	88.74
	CAIFI	2.10
Unadjusted	SAIFI	1.50
	SAIDI	215.56
	CAIDI	143.92
	CAIFI	2.27

Excludes the following 2022 storm dates from the normalized data:
May 31, Jun 8, and Jun 21

Table 2: Evergy Missouri Metro 2022 MAIFI

Month	Monthly MAIFI (Adjusted)
1	0.21
2	0.06
3	0.00
4	0.04
5	0.01
6	0.02
7	0.01
8	0.01
9	0.00
10	0.00
11	0.01
12	0.01

Table 3: Evergy Missouri Metro 2022 CEMI-6

Month	Monthly CEMI-6 (YTD)
1	0.000%
2	0.001%
3	0.081%
4	0.085%
5	0.117%
6	0.350%
7	0.768%
8	0.900%
9	1.255%
10	1.722%
11	2.170%
12	2.490%

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

Patrols and repairs are planned to complete in the 2nd, 3rd, and 4th Quarters of 2023. 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 2023. Table 2 lists circuits identified as having the highest 5% of adjusted SAIFI statistics in 2022, as outlined in 20 CSR 4240.23.010 (6).

Table 2: Highest 5% SAIFI Circuits

Center	Substation	Circuit	Action Plan	SAIFI	SAIDI
DOD	482	0482012011	Outages related to weather and equipment failures; failed equipment replaced.	6.94	756.69
DOD	61	0061013064	Outages related to equipment failures, vehicles, and varmints; failed equipment replaced and install varmint protection.	6.89	510.56
FM	53	0053013074	Outages related to vehicles and equipment failures; failed equipment replaced. No further action required.	6.49	487.72
FM	89	0089004568	Outages related to weather and equipment failures; failed equipment replaced.	6.10	1,049.10
FM	53	0053013032	Outages related to vehicles, equipment failures, and vegetation; failed equipment replaced and trim trees.	5.64	363.67
FM	53	0053013071	Outages related to equipment failures, vehicles, and vegetation; failed equipment replaced and trim trees.	5.33	328.00
FM	74	0074013032	Outages related to weather and equipment failures; failed equipment replaced.	5.13	627.17
DOD	31	0031013042	Outages related to weather; failed equipment replaced.	4.84	208.45
DOD	23	0023013072	Outages related to equipment failures and public damage; failed equipment replaced.	4.47	328.59
NTLD	27	0027012032	Outages related to vegetation, vehicles, and equipment failures; failed equipment replaced and trim trees.	4.20	459.32
FM	89	0089004578	Outages related to weather and vandalism; failed equipment replaced. No further action required.	4.20	620.57
FM	24	0024013042	Outages related to equipment failures and overload; failed equipment replaced.	4.18	901.26
BRUN	32	0032012011	Outages related to equipment failures and weather; failed equipment replaced. No further action required.	4.17	715.18
DOD	31	0031013014	Outages related to vegetation, overload, and equipment failures; failed equipment replaced and trim trees.	4.14	508.75
NTLD	78	007802061	Outages related to equipment failures, contractor errors, and planned work; failed equipment replaced. No further action required.	4.06	399.88
FM	53	0053013081	Outages related to equipment failures and varmints; failed equipment replaced and install varmint protection.	3.91	443.59

Center	Substation	Circuit	Action Plan	SAIFI	SAIDI
FM	89	0089004479	Outages related to substation equipment and vegetation; failed equipment replaced and trim trees.	3.87	344.46
DOD	23	0023013003	Outages related to equipment failures, overload, and public damage; failed equipment replaced. No further action required.	3.85	457.91
DOD	30	0030012022	Outages related to equipment failures, planned work, and vehicles; failed equipment replaced. No further action required.	3.77	226.40
FM	89	0089004579	Outages related to substation equipment and vegetation; failed equipment replaced and trim trees.	3.71	382.35
DOD	75	0075013084	Outages related to equipment failures, vegetation, and public damage; failed equipment replaced and trim trees.	3.56	445.59
DOD	23	0023013073	Outages related to overload and vegetation; failed equipment replaced and trim trees.	3.43	410.06

Excludes the following 2022 storm dates from the normalized data: May 31, Jun 8, and Jun 21

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

The referenced rule requires the 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 3 reflects the action plans identified to lower the SAIFI metric for these circuits. Evergy Engineering plans to work with an external provider to perform predictive diagnostic testing (ultrasound) on some recurring problems and issue corrective action jobs scheduled for completion during the 3rd and 4th Quarters of 2023. Additional patrols and root-cause analysis, where required, are planned to complete in 4th Quarter 2023.

Table 3: Multi-Year Worst Performing Circuit Report

Years	Center	Substation	Circuit	Action Plan	SAIFI	SAIDI
2021 2022	DOD	482	0482012011	Outages related to weather and equipment failures; failed equipment replaced.	6.94	756.69
2021 2022	FM	74	0074013032	Outages related to weather and equipment failures; failed equipment replaced.	5.13	627.17
2021 2022	DOD	31	0031013014	Outages related to vegetation, overload, and equipment failures; failed equipment replaced and trim trees.	4.14	508.75

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