



**Evergy Missouri West 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 West Reliability Indices

2022		GMO
Total Customers (Meter Counts)		338,863
Adjusted	SAIFI	1.28
	SAIDI	124.37
	CAIDI	97.34
	CAIFI	2.09
Unadjusted	SAIFI	1.39
	SAIDI	171.09
	CAIDI	123.46
	CAIFI	2.19

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

Table 2: Evergy Missouri West 2022 MAIFI

Month	Monthly MAIFI (Adjusted)
1	0.13
2	0.03
3	0.00
4	0.01
5	0.00
6	0.01
7	0.00
8	0.03
9	0.01
10	0.01
11	0.00
12	0.02

Table 3: Evergy Missouri West 2022 CEMI-6

Month	Monthly CEMI-6 (YTD)
1	0.000%
2	0.002%
3	0.006%
4	0.126%
5	0.139%
6	0.324%
7	0.412%
8	0.523%
9	0.792%
10	1.316%
11	1.636%
12	1.945%

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 4: Highest 5% SAIFI Circuits

Center	Circuit	Substation	Action Plan	SAIFI	SAIDI
MDCT	0417012011	417	Outages related to weather; failed equipment replaced.	10.00	596.07
MDCT	0417012021	417	Outages related to weather; failed equipment replaced.	9.33	497.07
MDCT	0386012011	386	Outages related to weather and equipment failures; failed equipment replaced. No further action required.	8.51	560.86
NVD	0287012021	287	Outages related to planned work, equipment failures, and vegetation; failed equipment replaced and trim trees.	7.70	895.98
CLNT	0303012011	303	Outages related to equipment failures, varmints, and vegetation; failed equipment replaced, install varmint protection, and trim trees.	7.46	477.34
NVD	0266002011	266	Outages related to planned work and vegetation; trim trees.	6.11	748.38
STJO	0402012012	402	Outages related to weather and vegetation; failed equipment replaced and trim trees.	6.00	1,174.55
WRSB	0261012012	261	Outages related to equipment failures and planned work; failed equipment replaced. No further action required.	5.80	1,321.26
WRSB	0272012014	272	Outages related to overload and weather; failed equipment replaced.	5.75	309.66
LEES	0240012011	240	Outages related to equipment failures, varmints, and vegetation; failed equipment replaced, install varmint protection, and trim trees.	5.69	482.91
STJO	0382012011	382	Outages related to weather and vegetation; failed equipment replaced and trim trees.	5.46	217.80
LEES	0256012011	256	Outages related to equipment failures and overload; failed equipment replaced.	5.36	2,379.26
STJO	0402012011	402	Outages related to weather and equipment failures; failed equipment replaced. No further action required.	5.11	1,204.69
PLCT	0319025022	319	Outages related to equipment failure, vegetation, and weather; failed equipment replaced and trim trees.	4.98	459.03
MDCT	0638012511	638	Outages related to weather, equipment failure, and vegetation; failed equipment replaced and trim trees.	4.84	551.63
STJO	0426012012	426	Outages related to weather and vegetation; failed equipment replaced and trim trees.	4.58	1,858.59

Center	Circuit	Substation	Action Plan	SAIFI	SAIDI
MDCT	0638012511	638	Outages related to weather, equipment failure, and vegetation; failed equipment replaced and trim trees.	4.84	551.63
STJO	0426012012	426	Outages related to weather and vegetation; failed equipment replaced and trim trees.	4.58	1,858.59
STJO	0416012021	416	Outages related to weather and equipment failures; failed equipment replaced. No further action required.	4.55	302.54
MRYV	0434012011	434	Outages related to equipment failures; failed equipment replaced. No further action required.	4.44	270.72
STJO	0397012012	397	Outages related to weather; failed equipment replaced.	4.40	1,114.67
MDCT	0430012022	430	Outages related to weather, equipment failures, and vegetation; failed equipment replaced and trim trees.	4.34	473.65
STJO	0397012011	397	Outages related to weather; failed equipment replaced. No further action required.	4.18	1,096.87
STJO	0382012021	382	Outages related to vehicle damage, vegetation, and weather; failed equipment replaced and trim trees.	4.04	195.87
STJO	0382012041	382	Outages related to weather, vegetation, and equipment failures; failed equipment replaced and trim trees.	4.03	209.75
SDLA	0293012012	293	Outages related to vegetation, equipment failures, and weather; failed equipment replaced and trim trees.	4.02	718.84
SDLA	0293012011	293	Outages related to vegetation, weather, and equipment failures; failed equipment replaced and trim trees.	3.77	563.61

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 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 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 be completed in the 4th Quarter of 2023.

Table 5: Multi-Year Worst Performing Circuit Report

Year	Centers	Circuits	Substations	Action Plan	SAIFI	SAIDI
2021 2022	NVD	0287012021	287	Outages related to planned work, equipment failures, and vegetation; failed equipment replaced and trim trees.	7.70	895.98
2021 2022	CLNT	0303012011	303	Outages related to equipment failures, varmints, and vegetation; failed equipment replaced, install varmint protection, and trim trees.	7.46	477.34
2021 2022	NVD	0266002011	266	Outages related to planned work and vegetation; trim trees.	6.11	748.38
2021 2022	STJO	0382012011	382	Outages related to weather and vegetation; failed equipment replaced and trim trees.	5.46	217.80
2021 2022	PLCT	0319025022	319	Outages related to equipment failures, vegetation, and weather; failed equipment replaced and trim trees.	4.98	459.03
2021 2022	MDCT	0638012511	638	Outages related to weather, equipment failures, and vegetation; failed equipment replaced and trim trees.	4.84	551.63
2021 2022	STJO	0397012012	397	Outages related to weather; failed equipment replaced.	4.40	1,114.67

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