



**Evergy Missouri West 2021 Reliability
Performance Report**

Annual reporting completed pursuant to 20 CSR 4240-23.010

April 29, 2022

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20 CSR 4240.23.010 (1)(A), (B), (C), (D), and (3) – Reliability Statistics 2021

Table 1: Evergy Missouri West Reliability Indices

2021		GMO
Total Customers (Meter Counts)		335,285
Adjusted	SAIFI	1.22
	SAIDI	137.44
	CAIDI	112.58
	CAIFI	2.13
Unadjusted	SAIFI	1.86
	SAIDI	310.55
	CAIDI	166.97
	CAIFI	2.57

Excludes the following 2021 storm dates from the normalized data:
Jan 1, Feb 16, May 9, Jun 11, Jul 10, Aug 10, Aug 12, Aug 20, Dec 15

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

Patrols and repairs planned to complete in the 2nd, 3rd, and 4th Quarters of 2022. 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 2022. Table 2 lists circuits identified as having the highest 5% of adjusted SAIFI statistics in 2021, as outlined in 20 CSR 4240.23.010 (6).

Table 2: Highest 5% SAIFI Circuits

Center	Circuit	Substation	Action Plan	SAIFI	SAIDI
NVD	512034111	512	Outages related to equipment failure; equipment repaired. Work in progress.	44.00	7,636.00
NVD	287012021	287	Outages related to varmints, equipment failures and weather; varmint protection applied, equipment repaired, and tree trimming required. Work in progress.	10.16	1,369.36
TRNT	304004011	304	Outages related to equipment failures, weather; tree trimming required, equipment repaired. Work in progress.	7.16	816.65
MRYV	396012011	396	Outages related to varmints, equipment failures and weather; varmint protection applied, equipment repaired, and tree trimming required. Work in progress.	7.04	784.11
MRYV	396012012	396	Outages related to varmints, equipment failures, vegetation, and weather; varmint protection applied, equipment repaired, and tree trimming required. Work in progress.	6.95	766.29
NVD	0350012011	350	Outages related to varmints, equipment failures, vegetation, and weather; varmint protection applied, equipment repaired, and tree trimming required. Work in progress.	6.92	1,276.79
BLTN	254012011	254	Outages related to varmints, equipment failures, vegetation, and weather; varmint protection applied, equipment repaired, and tree trimming required. Work in progress.	6.91	434.74
STJO	382012011	382	Outages related to equipment failure and vegetation; equipment repaired, and tree trimming required. Work in progress.	6.82	806.13
WRSB	249012012	249	Outages related to varmints, equipment failures, vegetation, and weather; varmint protection applied, equipment repaired, and tree trimming required. Work in progress.	6.75	915.98
NVD	266002011	266	Outages related to varmints, equipment failures, vegetation, and weather; varmint protection applied, equipment repaired, and tree trimming required. Work in progress.	6.69	1,015.60
STJO	390034021	390	Outages related to equipment failure and vegetation; equipment repaired, and tree trimming required. Work in progress.	6.50	5,262.13
MRYV	387012011	387	Outages related to equipment failures and weather; tree trimming required, and equipment repaired. Work in progress.	6.24	1,285.86
MDCT	413012011	413	Outages related to varmints, equipment failures, vegetation, and weather; varmint protection applied, equipment repaired, and tree trimming required. Work in progress.	6.24	980.86

Center	Circuit	Substation	Action Plan	SAIFI	SAIDI
PLCT	319025022	319	Outages related to varmints, equipment failures, vegetation, and weather; varmint protection applied, equipment repaired, and tree trimming required. Work in progress.	6.24	1,284.37
CLNT	303012013	303	Outages related to equipment failures, vegetation, and weather; equipment repaired, and tree trimming required. Work in progress.	6.13	949.29
WRSB	219012011	219	Outages related to varmints, equipment failures, vegetation, and weather; varmint protection applied, equipment repaired, and tree trimming required. Work in progress.	6.09	1,065.21
STJO	397012012	397	Outages related to varmints and vegetation; varmint protection applied, and tree trimming required. Work in progress.	5.93	1,190.47
CLNT	303012011	303	Outages related to varmints, equipment failures, vegetation, and weather; varmint protection applied, equipment repaired, and tree trimming required. Work in progress.	5.50	797.25
MDCT	638012511	638	Outages related to equipment failures, vegetation, and weather; equipment repaired, and tree trimming required. Work in progress.	5.46	1,091.44
HNRT	333012022	333	Outages related to varmints, equipment failures, vegetation, and weather; varmint protection applied, equipment repaired, and tree trimming required. Work in progress.	5.40	543.15
MRYV	422012012	422	Outages related to varmints, equipment failures, vegetation, and weather; varmint protection applied, equipment repaired, and tree trimming required. Work in progress.	5.36	2,109.33
NVD	350069000	350	Outages related to equipment failure; equipment repaired. No further action required.	5.33	912.67
MRYV	387012012	387	Outages related to varmints, equipment failures, vegetation, and weather; varmint protection applied, equipment repaired, and tree trimming required. Work in progress.	5.33	1,395.69
NVD	340012013	340	Outages related to varmints, equipment failures, vegetation, and weather; varmint protection applied, equipment repaired, and tree trimming required. Work in progress.	5.27	740.69
STJO	414012012	414	Outages related to varmints, equipment failures, vegetation, and weather; varmint protection applied, equipment repaired, and tree trimming required. Work in progress.	5.22	250.33

Excludes the following 2021 storm dates from the normalized data: Jan 1, Feb 16, May 9, Jun 11, Jul 10, Aug 10, Aug 12, Aug 20, Dec 15

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 2022. Additional patrols and root cause analysis, where required, are planned to be completed in the 4th Quarter of 2022.

Table 3: Multi-Year Worst Performing Circuit Report

Year	Centers	Circuits	Substations	Action Plan	SAIFI	SAIDI
2020 2021	MRYV	396012012	396	Outages related to varmints, equipment failures, vegetation, and weather; ultrasound test the feeder, varmint protection applied, equipment repaired, and tree trimming required. Work in progress.	6.95	766.29
2020 2021	NVD	0350012011	350	Outages related to varmints, equipment failures, vegetation, and weather; ultrasound test the feeder, varmint protection applied, equipment repaired, and tree trimming required. Work in progress.	6.92	1,276.79
2019 2021	BLTN	254012011	254	Outages related to varmints, equipment failures, vegetation, and weather; ultrasound test the feeder, varmint protection applied, equipment repaired, and tree trimming required. Work in progress.	6.91	434.74
2019 2021	STJO	382012011	382	Outages related to equipment failure and vegetation; ultrasound test the feeder, equipment repaired, and tree trimming required. Work in progress.	6.82	806.13
2020 2021	HNRT	333012022	333	Outages related to varmints, equipment failures, vegetation, and weather; ultrasound test the feeder, varmint protection applied, equipment repaired, and tree trimming required. Work in progress.	5.40	543.15
2019 2021	MRYV	387012012	387	Outages related to varmints, equipment failures, vegetation, and weather; ultrasound test the feeder, varmint protection applied, equipment repaired, and tree trimming required. Work in progress.	5.33	1,395.69

Excludes the following 2021 storm dates from the normalized data: Jan 1, Feb 16, May 9, Jun 11, Jul 10, Aug 10, Aug 12, Aug 20, Dec 15