



The Empire District Electric Company
A Liberty Utilities Company
Electric Utility System Reliability
Monitoring and Reporting Submission Requirements
Annual Reliability Report
4 CSR 240-23.010

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Introduction

This report details The Empire District Electric Company's, a Liberty Utilities company, ("Liberty–Empire") annual reliability metrics and worst performing circuits for calendar year 2018 as required by Missouri Public Service Commission Rule 4 CSR 240-23.010, Electric Utility System Reliability Monitoring and Reporting Submission Requirements. This report will provide the reliability measures requested by the Rule, the list of Worst Performing Circuits, the Multi-Year Worst Performing Circuits, and the actions taken or planned to improve the performance of these circuits.

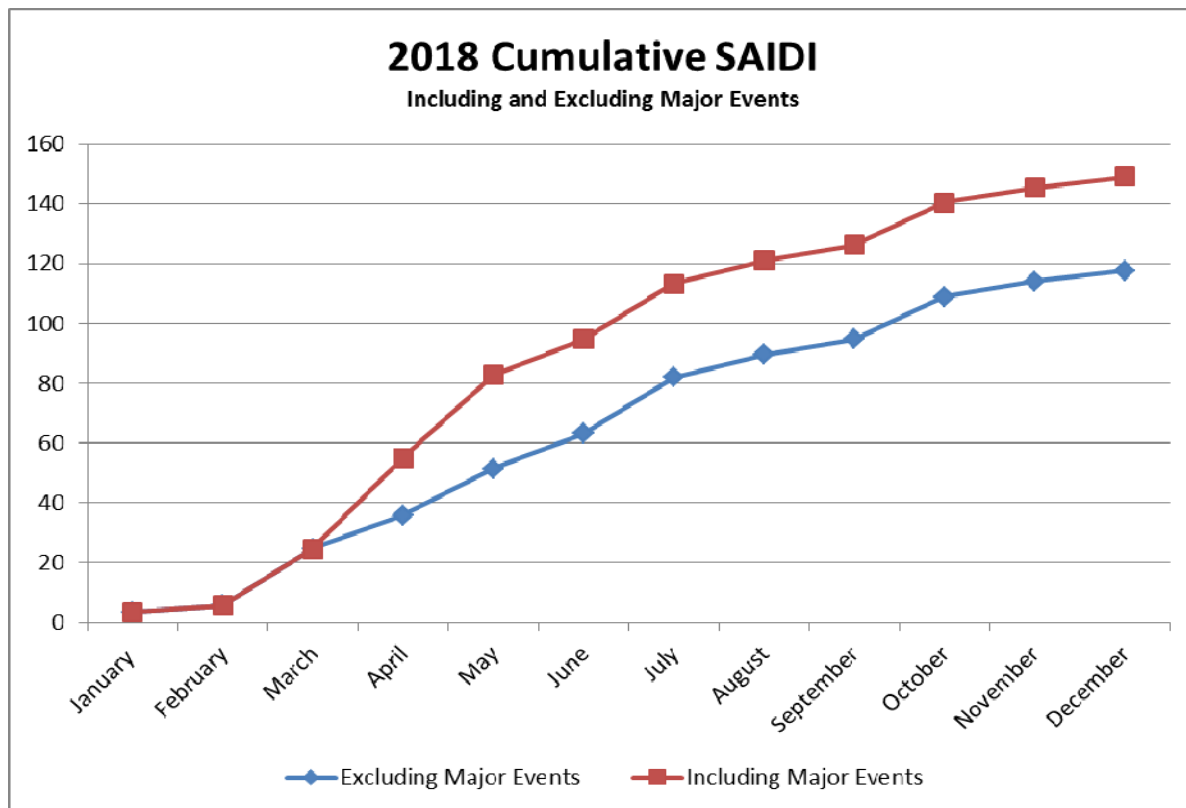
Definitions

For the purpose of this report, the following definitions shall apply:

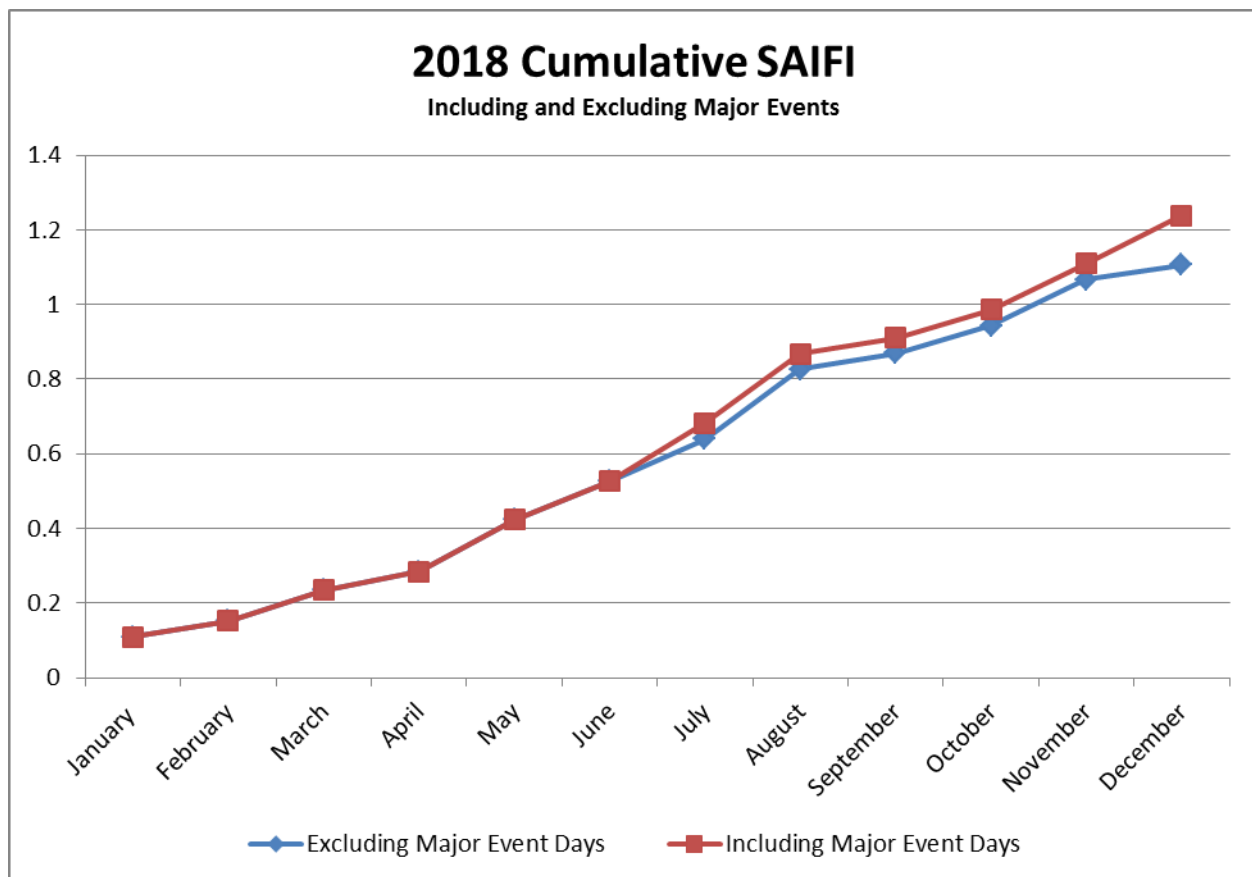
1. System Average Interruption Frequency Index ("SAIFI") – how often the average customer experiences a sustained interruption over a predefined period of time.
2. Customer Average Interruption Frequency Index ("CAIFI") – the average frequency of sustained interruptions for those customers experiencing sustained interruptions. The customer is counted once regardless of the number of times interrupted for this calculation.
3. System Average Interruption Duration Index ("SAIDI") – the total duration of interruption for the average customer during a predefined period of time. SAIDI is measured in minutes.
4. Customer Average Interruption Duration Index ("CAIDI") – the average time required to restore service. CAIDI is measured in minutes.
5. Worst Performing Circuit (WPC) – A distribution circuit whose SAIFI value, adjusted to exclude major events per IEEE Standard 1366-2012 when compared to the SAIFI values for the other circuits in the Liberty-Empire system places it among the 5% of circuits with the highest SAIFI values in the Liberty-Empire system.

Reliability Metrics

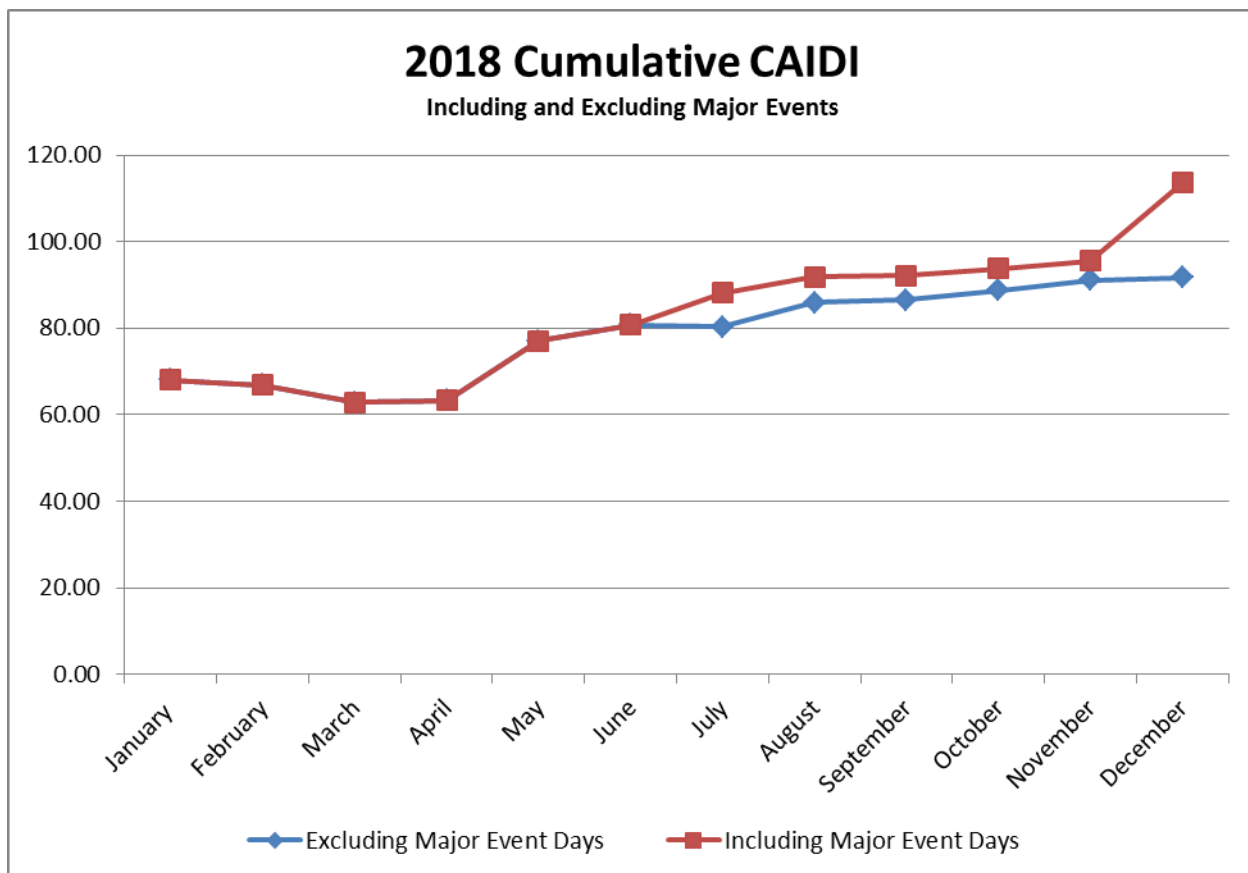
2018 Cumulative SAIDI		
Month	EME	IME
January	7.41	7.41
February	10.17	10.17
March	14.77	14.77
April	17.99	17.99
May	32.60	32.60
June	42.54	42.54
July	51.42	60.15
August	70.96	79.69
September	75.19	83.92
October	83.71	92.44
November	97.19	105.92
December	101.45	140.54



2018 Cumulative SAIFI		
Month	EME	IME
January	0.109	0.109
February	0.152	0.152
March	0.235	0.235
April	0.284	0.284
May	0.423	0.423
June	0.527	0.527
July	0.640	0.682
August	0.826	0.868
September	0.869	0.911
October	0.944	0.986
November	1.067	1.109
December	1.106	1.238



2018 Cumulative CAIDI		
Month	EME	IME
January	67.98	67.98
February	66.91	66.91
March	62.85	62.85
April	63.35	63.35
May	77.07	77.07
June	80.72	80.72
July	80.34	88.20
August	85.91	91.81
September	86.52	92.12
October	88.68	93.75
November	91.09	95.51
December	91.73	113.52





2018 Multi-Year Worst Performing Circuits

Liberty-Empire has identified six multi-year worst performing circuits in accordance with 4 CSR 240-23.010(8). To improve the performance of the circuits, Liberty-Empire adopted a corrective action plan that includes the following activities:

- Liberty-Empire employees perform a “walk-through” of the worst performing circuit collecting engineering data to support the following coordination study and sectionalizing program. Visually identifiable defects are noted and corrected as part of the corrective action plan.
- Upon walk-through completion, a coordination study of the circuit occurs. The coordination study evaluates protective equipment settings and application to ensure each protective device properly operates with other upstream and downstream protective equipment. Additional sectionalizing is then added to the circuit to reduce the number of customers experiencing an outage, in the event an outage occurs, thus increasing reliability to other customers on the circuit. Faulted circuit indicators are also added to the circuit to reduce restoration time and shorten customer outage duration.
- In addition to the coordination study and sectionalizing program, any vegetation related issues identified are scheduled to be cleared for each circuit.

The multi-year worst performing circuits are indicated in the chart below and are ranked according to their 2018 SAIFI value. A more detailed list of each circuit’s corrective action will follow.

Multi-Year Worst Performing Circuits				
SAIFI				
2016 - 2018				
Location	Circuit Number	2016	2017	2018
Neosho - East	3981	3.197	1.992	4.986
Noel City	4431	1.321	3.425	3.861
Seneca - East	3751	1.459	4.389	3.797
Tipton Ford	2921	2.595	3.264	3.120
Marionville - North	4373	2.086	5.180	3.025
Joplin - Northwest	1271	3.116	0.062	2.575



Circuit: 3981

Area Served: Neosho, Missouri

2018 SAIFI: 4.986

2017 SAIFI: 1.992

2016 SAIFI: 3.197

A flood event in 2017 damaged portions of the #398 – Neosho East substation, including the existing transmission auto-transfer switching scheme. Three transmission outages have occurred since. The transmission auto-transfer switching scheme is currently being replaced and will help reduce the total number of outages experienced by the customers served by circuit 3981. Liberty-Empire will continue to monitor the performance of circuit 3981 and investigate methods to improve its performance.

This circuit received a visual inspection in 2017 and a comprehensive intrusive inspection in 2017. This circuit is scheduled to receive an infrared inspection in 2023. The repair work identified as a result of the inspections will be completed in accordance with Liberty-Empire's infrastructure inspection policy.

Vegetation regular maintenance is scheduled for 2019.

A coordination study and sectionalizing corrective action program was performed in 2011.

Circuit: 4431

Area Served: Noel, Missouri

2018 SAIFI: 3.861

2017 SAIFI: 3.425

2016 SAIFI: 1.321

This circuit received an infrared inspection in 2017 and comprehensive intrusive inspection in 2018. This circuit is scheduled to receive its next visual inspection in 2023. The repair work identified as a result of the inspections will be completed in accordance with Liberty-Empire's infrastructure inspection policy.

Vegetation mid-cycle clearing was performed in 2018 and is scheduled for regular maintenance in 2021.

A coordination study and sectionalizing corrective action program was performed in 2013.



Circuit: 3751

Area Served: Seneca, Missouri

2018 SAIFI: 3.80

2017 SAIFI: 4.389

2016 SAIFI: 1.459

A transmission auto-transfer switching scheme is scheduled for installation at Racine Junction, the transmission tap location for the radial transmission line serving the #375 – Seneca East substation, which is the source for circuit 3751. The addition of this automatic switching point will reduce the overall exposure of the transmission line serving the #375 substation and provide automatic fault isolation and restoration in the event of a faulted condition. A significant portion of the 2017 and 2018 outages for the customers served by circuit 3751 were due to transmission faults.

This circuit received a visual inspection in 2013 and a comprehensive intrusive inspection in 2014. An infrared inspection is scheduled in 2019. The repair work identified as a result of the inspections will be completed in accordance with Liberty-Empire's infrastructure inspection policy.

Vegetation clearing was performed in 2016 and is scheduled for a mid-cycle clearing in 2019.

A coordination study and sectionalizing corrective action program was completed in 2012.

Circuit: 2921

Area Served: Tipton Ford, Missouri

2018 SAIFI: 3.120

2017 SAIFI: 3.264

2016 SAIFI: 2.595

Circuit 2921 is sourced from substation #292 – Tipton Ford. In 2017, a transmission protection mis-operation was identified when a fault occurred on the transmission line segment between the #398 – Neosho East and #292 – Tipton Ford substations. The mis-operation caused the next adjacent substation beyond #292 to operate for faults between #398 and #292. Crews began a series of diagnostic activities, including replacement of a transmission breaker at #292. An additional mis-operation occurred after the breaker replacement and additional diagnostic activities were performed. Crews found a reclosing relay jumper missing which prevented the transmission breaker from properly operating. The reclosing relay jumper was installed and no additional mis-operations have occurred.

This circuit received a visual inspection in 2018 and a comprehensive intrusive inspection in 2017. An infrared inspection is scheduled in 2023. The repair work identified as a result of the inspections will be completed in accordance with Liberty-Empire's infrastructure inspection policy.

Vegetation mid-cycle clearing was performed in 2018.

A coordination study and sectionalizing corrective action program was performed in 2010.



Circuit: 4373

Area Served: Marionville, Missouri

2018 SAIFI: 3.025

2017 SAIFI: 5.180

2016 SAIFI: 2.086

The #437 – Marionville substation, which is the source for circuit 4373, is equipped with an older automatic transfer switching scheme to isolate transmission faults and automatically restore power to the substation. The scheme requires that one side of the switch remain open while the other source restores power. The adjacent substation, #124 – Aurora H.T., required to restore power was diagnosed with a failed relay which prevented the power from being restored. The relay was replaced to correct the issue.

This circuit received a comprehensive intrusive inspection in 2018. An infrared inspection is scheduled in 2019. The repair work identified as a result of the inspections will be completed in accordance with Liberty-Empire's infrastructure inspection policy.

Vegetation mid-cycle clearing was performed in 2017. The circuit is also scheduled for regular maintenance in 2020.

A coordination study and sectionalizing corrective action program was completed in 2014.

Circuit: 1271

Area Served: Neosho, Missouri

2018 SAIFI: 2.458

2017 SAIFI: 0.062

2016 SAIFI: 3.116

The #341 – Joplin Northwest substation, which serves circuit 1271, is scheduled for upgrades to improve reliability. A transmission auto-transfer switching scheme, new distribution breakers and a distribution buss are being installed. These upgrades will improve reliability by providing for improved transmission sectionalization and better information for troubleshooting distribution faults.

This circuit received a comprehensive intrusive inspection in 2012 and an infrared inspection in 2016. This circuit is scheduled to receive a visual inspection in 2022. The repair work identified as a result of the inspections will be completed in accordance with Liberty-Empire's infrastructure inspection policy.

Vegetation regular maintenance is scheduled for 2020.

A coordination study and sectionalizing corrective action program was performed in 2011.



2018 Worst Performing Circuits

The table below lists the 2018 Worst Performing Circuits ranked according to their SAIFI value.

Worst Performing Circuits - System 2018 Measured by SAIFI										
Location	Circuit Number	Number Of Outages	Outage Hours Reported	Customer Outage Minutes	Customers Affected	Total Customers On Affected Circuits	AREA	SAIFI	SAIDI	CAIDI
Southwest City	4141	17	29.62	33,380	524	82	216	6.390	407.07	63.70
Neosho - East	3981	100	158.75	578,845	7,506	1,506	216	4.986	384.49	77.12
Noel City	4431	67	93.89	596,861	5,368	1,390	216	3.861	429.29	111.19
Buffalo - North	4091	31	41.81	777,309	4,365	1,150	213	3.797	676.12	178.08
Buffalo - South	3422	19	25.52	222,823	3,122	978	213	3.194	227.93	71.37
Seneca - East	3751	30	58.79	357,582	3,369	887	216	3.193	338.94	106.14
Tipton Ford	2921	10	13.77	102,803	1,170	375	214	3.120	274.14	87.87
Gretna	4331	5	6.30	50,749	974	315	209	3.094	161.21	52.10
Marionville - North	4373	13	36.29	889,007	2,374	785	211	3.025	1132.85	374.48
Joplin - Silvercreek	4692	25	41.61	120,395	1,337	474	214	2.823	254.21	90.05
Carthage - Southwest	3951	32	46.24	81,211	2,383	931	215	2.560	87.25	34.08
Joplin - Northwest	1271	26	36.72	205,847	2,488	966	214	2.458	203.84	82.74
Buffalo - North	4092	15	29.53	188,333	1,062	435	213	2.440	432.70	177.34
Gateway Drive	1265	20	37.94	227,791	3,112	1,285	214	2.422	177.25	73.20



Circuit: 4141

Area Served: Southwest City, Missouri

2018 SAIFI: 6.390

A coordination study and sectionalizing corrective action program was completed in 2012.

This circuit received a visual inspection in 2016 and a comprehensive intrusive inspection in 2018. An infrared inspection is scheduled in 2022. The repair work identified as a result of the inspections will be completed in accordance with Liberty-Empire's infrastructure inspection policy.

Vegetation regular maintenance was performed in 2018.

Circuit: 3981

Area Served: Neosho, Missouri

2018 SAIFI: 4.986

A coordination study and sectionalizing corrective action program was performed in 2011.

This circuit received a visual inspection in 2017 and a comprehensive intrusive inspection in 2017. This circuit is scheduled to receive an infrared inspection in 2023. The repair work identified as a result of the inspections will be completed in accordance with Liberty-Empire's infrastructure inspection policy.

Vegetation regular maintenance is scheduled for 2019.

Circuit: 4431

Area Served: Noel, Missouri

2018 SAIFI: 3.861

A coordination study and sectionalizing corrective action program was performed in 2013.

This circuit received an infrared inspection in 2017 and comprehensive intrusive inspection in 2018. This circuit is scheduled to its next visual inspection in 2023. The repair work identified as a result of the inspections will be completed in accordance with Liberty-Empire's infrastructure inspection policy.

Vegetation mid-cycle clearing was performed in 2018 and is scheduled for regular maintenance in 2021.



Circuit: 4091

Area Served: Buffalo, Missouri

2018 SAIFI: 3.797

A coordination study and sectionalizing corrective action program was performed in 2014.

This circuit received an infrared inspection in 2016. This circuit is scheduled to receive a visually inspection in 2020 and a comprehensive intrusive inspection in 2023. The repair work identified as a result of the inspections will be completed in accordance with Liberty-Empire's infrastructure inspection policy.

Vegetation clearing was performed in 2018.

Circuit: 3422

Area Served: Buffalo, Missouri

2018 SAIFI: 3.194

A coordination study and sectionalizing corrective action program was completed in 2014.

This circuit received a visual inspection in 2017 and a comprehensive intrusive inspection in 2015. An infrared inspection is scheduled in 2023. The repair work identified as a result of the inspections will be completed in accordance with Liberty-Empire's infrastructure inspection policy.

Vegetation mid-cycle clearing was performed in 2018.

Circuit: 3751

Area Served: Seneca, Missouri

2018 SAIFI: 3.797

A coordination study and sectionalizing corrective action program was completed in 2012.

This circuit received a visual inspection in 2013 and a comprehensive intrusive inspection in 2014. An infrared inspection is scheduled in 2019. The repair work identified as a result of the inspections will be completed in accordance with Liberty-Empire's infrastructure inspection policy.

Vegetation clearing was performed in 2016 and is scheduled for a mid-cycle clearing in 2019.



Circuit: 2921

Area Served: Tipton Ford, Missouri

2018 SAIFI: 3.120

A coordination study and sectionalizing corrective action program was performed in 2010.

This circuit received a visual inspection in 2018 and a comprehensive intrusive inspection in 2017. An infrared inspection is scheduled in 2023. The repair work identified as a result of the inspections will be completed in accordance with Liberty-Empire's infrastructure inspection policy.

Vegetation mid-cycle clearing was performed in 2018.

Circuit: 4331

Area Served: Gretna, Missouri

2018 SAIFI: 3.094

This circuit received a comprehensive intrusive inspection in 2012 and an infrared inspection in 2017. A visual inspection is scheduled in 2021. The repair work identified as a result of the inspections will be completed in accordance with Liberty-Empire's infrastructure inspection policy.

Vegetation mid-cycle clearing was performed in 2018.

Circuit: 4373

Area Served: Marionville, Missouri

2018 SAIFI: 3.025

A coordination study and sectionalizing corrective action program was completed in 2014.

This circuit received a comprehensive intrusive inspection in 2018. An infrared inspection is scheduled in 2019. The repair work identified as a result of the inspections will be completed in accordance with Liberty-Empire's infrastructure inspection policy.

Vegetation mid-cycle clearing was performed in 2017. The circuit is also scheduled for regular maintenance in 2020.



Circuit: 4692
Area Served: Joplin, Missouri
2018 SAIFI: 2.823

This circuit is scheduled to receive a comprehensive intrusive inspection in 2020 and an infrared inspection in 2021. The repair work identified as a result of the inspections will be completed in accordance with Liberty-Empire's infrastructure inspection policy.

Mid-cycle vegetation clearing will be performed in 2019.

Circuit: 3951
Area Served: Carthage, Missouri
2018 SAIFI: 2.560

This circuit received a visual inspection in 2014 and a comprehensive intrusive inspection in 2016. An infrared inspection is scheduled in 2020. The repair work identified as a result of the inspections will be completed in accordance with Liberty-Empire's infrastructure inspection policy.

A coordination study and sectionalizing corrective action program was completed in 2015.

Mid-cycle vegetation clearing will be performed in 2019.

Circuit: 1271
Area Served: Neosho, Missouri
2018 SAIFI: 2.458

A coordination study and sectionalizing corrective action program was performed in 2011.

This circuit received a comprehensive intrusive inspection in 2012 and an infrared inspection in 2016. This circuit is scheduled to receive a visual inspection in 2022. The repair work identified as a result of the inspections will be completed in accordance with Liberty-Empire's infrastructure inspection policy.

Vegetation regular maintenance is scheduled for 2020.



Circuit: 4092

Area Served: Buffalo, Missouri

2018 SAIFI: 2.440

A coordination study and sectionalizing corrective action program was performed in 2013.

This circuit received a visual inspection in 2014 and comprehensive intrusive inspection in 2017. An infrared inspection is scheduled in 2020. The repair work identified as a result of the inspections will be completed in accordance with Liberty-Empire's infrastructure inspection policy.

Vegetation regular maintenance is scheduled for 2020.

Circuit: 1265

Area Served: Joplin, Missouri

2018 SAIFI: 2.422

This circuit received a comprehensive intrusive inspection in 2011 and an infrared inspection in 2016. A visual inspection is scheduled for 2020 and a comprehensive intrusive inspection is scheduled for 2023. The repair work identified as a result of the inspections will be completed in accordance with Liberty-Empire's infrastructure inspection policy.

A coordination study and sectionalizing corrective action program was completed in 2013.

Vegetation regular maintenance is scheduled for 2019.

THE EMPIRE DISTRICT ELECTRIC COMPANY
CUSTOMER OUTAGE STATISTICS AND INDICES FOR MISSOURI
1/1/2018 to 1/31/2018
INCLUDING MAJOR EVENT DAYS

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1050	1	1.75	1	105	1,606	0.001	105.00	0.07	1.000	0.99999
1091	1	1.37	8	658	693	0.012	82.25	0.95	1.000	0.99998
1092	2	4.38	11	1,491	972	0.011	135.55	1.53	1.000	0.99997
1093	1	1.67	1	100	239	0.004	100.00	0.42	1.000	0.99999
1094	3	2.22	52	2,433	1,232	0.042	46.79	1.97	1.000	0.99996
1102	1	1.28	26	2,022	470	0.055	77.77	4.30	1.000	0.99990
1103	1	0.55	104	3,432	977	0.106	33.00	3.51	1.000	0.99992
1142	1	1.00	1	60	214	0.005	60.00	0.28	1.000	0.99999
1241	1	4.30	4	1,034	854	0.005	258.50	1.21	1.000	0.99997
1265	4	4.78	216	17,651	1,283	0.168	81.72	13.76	1.000	0.99969
1271	1	1.88	965	109,897	965	1.000	113.88	113.88	1.000	0.99745
1282	1	0.37	26	574	694	0.037	22.08	0.83	1.000	0.99998
1284	1	0.40	81	2,003	949	0.085	24.73	2.11	1.000	0.99995
1285	1	3.40	1	204	1,093	0.001	204.00	0.19	1.000	0.99999
1312	2	2.41	2	145	939	0.002	72.50	0.15	1.000	0.99999
1451	1	1.18	12	858	528	0.023	71.50	1.63	1.000	0.99996
1841	1	2.23	1	134	652	0.002	134.00	0.21	1.000	0.99999

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1843	1	0.90	18	976	1,079	0.017	54.22	0.90	1.000	0.99998
2092	2	5.87	2	352	919	0.002	176.00	0.38	1.000	0.99999
2171	2	3.74	565	88,990	564	1.002	157.50	157.78	1.002	0.99647
2212	1	1.45	1	87	1,294	0.001	87.00	0.07	1.000	0.99999
2621	2	1.42	1,169	28,638	1,170	0.999	24.50	24.48	1.001	0.99945
2921	3	4.75	383	55,095	375	1.021	143.85	146.92	1.000	0.99671
2951	1	1.30	1	78	1,401	0.001	78.00	0.06	1.000	0.99999
2961	3	3.46	46	3,301	648	0.071	71.76	5.09	1.000	0.99989
3121	5	9.14	1,142	98,460	1,132	1.009	86.22	86.98	1.009	0.99805
3122	2	1.13	79	2,720	851	0.093	34.43	3.20	1.000	0.99993
3123	1	0.58	1,055	37,100	1,055	1.000	35.17	35.17	1.000	0.99921
3221	4	2.48	18	731	1,245	0.014	40.61	0.59	1.000	0.99999
3222	1	2.53	652	99,712	773	0.843	152.93	128.99	1.000	0.99711
3232	1	1.65	1	99	427	0.002	99.00	0.23	1.000	0.99999
3301	1	5.25	17	5,364	740	0.023	315.53	7.25	1.000	0.99984
3302	2	5.60	96	15,976	902	0.106	166.42	17.71	1.000	0.99960
3303	2	1.33	991	12,008	972	1.020	12.12	12.35	1.020	0.99972
3304	1	1.57	154	14,418	1,075	0.143	93.62	13.41	1.000	0.99970
3311	1	0.68	1	41	536	0.002	41.00	0.08	1.000	0.99999
3423	2	2.10	2	126	387	0.005	63.00	0.33	1.000	0.99999
3472	3	2.82	112	6,727	1,582	0.071	60.06	4.25	1.000	0.99990
3553	3	4.17	19	1,487	1,040	0.018	78.26	1.43	1.000	0.99997

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
3591	2	4.68	2	281	1,223	0.002	140.50	0.23	1.000	0.99999
3621	1	1.10	33	2,186	1,555	0.021	66.24	1.41	1.000	0.99997
3661	2	0.66	93	1,965	1,029	0.090	21.13	1.91	1.000	0.99996
3673	1	1.82	1	109	268	0.004	109.00	0.41	1.000	0.99999
3701	1	2.52	493	74,443	493	1.000	151.00	151.00	1.000	0.99662
3702	3	5.91	630	104,286	611	1.031	165.53	170.68	1.000	0.99618
3751	1	2.08	1	125	885	0.001	125.00	0.14	1.000	0.99999
3871	2	4.07	14	897	1,354	0.010	64.07	0.66	1.000	0.99999
3872	1	5.07	1	304	1,067	0.001	304.00	0.28	1.000	0.99999
3873	1	0.73	798	35,364	798	1.000	44.32	44.32	1.000	0.99901
3878	2	2.27	5	363	796	0.006	72.60	0.46	1.000	0.99999
3891	2	2.11	105	7,030	457	0.230	66.95	15.38	1.000	0.99966
3893	1	0.95	1	57	1,115	0.001	57.00	0.05	1.000	0.99999
3903	1	3.15	14	2,651	299	0.047	189.36	8.87	1.000	0.99980
3913	1	0.83	12	604	819	0.015	50.33	0.74	1.000	0.99998
3914	1	2.03	1	122	375	0.003	122.00	0.33	1.000	0.99999
3952	3	19.95	43	2,001	1,273	0.034	46.53	1.57	1.000	0.99996
3953	1	1.00	6	360	524	0.011	60.00	0.69	1.000	0.99998
3981	3	2.00	3,006	36,563	1,503	2.000	12.16	24.33	2.000	0.99946
3982	5	7.79	37	2,574	1,771	0.021	69.57	1.45	1.000	0.99997
3991	1	1.02	1	61	730	0.001	61.00	0.08	1.000	0.99999
4102	3	5.80	25	2,707	904	0.028	108.28	2.99	1.000	0.99993

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
4142	1	1.17	1	70	598	0.002	70.00	0.12	1.000	0.99999
4151	1	0.88	172	9,116	172	1.000	53.00	53.00	1.000	0.99881
4152	1	0.87	241	12,532	241	1.000	52.00	52.00	1.000	0.99884
4153	1	0.90	1,297	70,038	1,297	1.000	54.00	54.00	1.000	0.99879
4154	2	4.17	1,276	102,646	1,218	1.048	80.44	84.27	1.048	0.99811
4171	2	2.05	45	2,565	678	0.066	57.00	3.78	1.000	0.99992
4172	3	2.89	3	173	1,725	0.002	57.67	0.10	1.000	0.99999
4211	1	2.27	4	546	710	0.006	136.50	0.77	1.000	0.99998
4212	1	1.68	36	3,645	820	0.044	101.25	4.45	1.000	0.99990
4223	1	1.03	1	62	917	0.001	62.00	0.07	1.000	0.99999
4224	2	4.28	7	899	757	0.009	128.43	1.19	1.000	0.99997
4312	2	1.69	16	820	844	0.019	51.25	0.97	1.000	0.99998
4313	1	2.38	1	143	535	0.002	143.00	0.27	1.000	0.99999
433	1	0.53	1	32	81	0.012	32.00	0.40	1.000	0.99999
4331	1	1.05	1	63	313	0.003	63.00	0.20	1.000	0.99999
4333	2	4.68	2	281	684	0.003	140.50	0.41	1.000	0.99999
4334	1	2.45	1	147	366	0.003	147.00	0.40	1.000	0.99999
4341	3	4.82	13	922	1,817	0.007	70.92	0.51	1.000	0.99999
4342	1	0.67	12	490	1,763	0.007	40.83	0.28	1.000	0.99999
4343	1	1.50	1	90	1,028	0.001	90.00	0.09	1.000	0.99999
4361	2	4.70	11	2,235	1,764	0.006	203.18	1.27	1.000	0.99997
4362	3	2.91	85	3,696	827	0.103	43.48	4.47	1.000	0.99990

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
4363	1	1.12	8	543	1,699	0.005	67.88	0.32	1.000	0.99999
4371	2	1.66	2	100	1,544	0.001	50.00	0.06	1.000	0.99999
4372	1	1.47	1	88	440	0.002	88.00	0.20	1.000	0.99999
4373	1	1.07	1	64	776	0.001	64.00	0.08	1.000	0.99999
4385	1	2.20	1	132	1,119	0.001	132.00	0.12	1.000	0.99999
4431	2	2.94	738	63,399	1,387	0.532	85.91	45.71	1.000	0.99898
4432	1	1.35	1	81	463	0.002	81.00	0.17	1.000	0.99999
4511	2	2.60	57	4,826	1,134	0.050	84.67	4.26	1.000	0.99990
4601	2	2.29	29	2,617	417	0.070	90.24	6.28	1.000	0.99986
4692	1	3.77	96	21,748	471	0.204	226.54	46.17	1.000	0.99897
4712	2	3.82	2	229	58	0.034	114.50	3.95	1.000	0.99991
5601	4	4.96	187	16,015	1,172	0.160	85.64	13.66	1.000	0.99969
5603	1	1.00	49	2,970	1,290	0.038	60.61	2.30	1.000	0.99995
5901	4	4.97	4	298	683	0.006	74.50	0.44	1.000	0.99999
5902	2	2.48	2	149	944	0.002	74.50	0.16	1.000	0.99999
5904	3	3.52	47	4,647	1,223	0.038	98.87	3.80	1.000	0.99991
6024	3	2.22	164	6,804	394	0.416	41.49	17.27	1.000	0.99961
6142	2	2.38	3	164	311	0.010	54.67	0.53	1.000	0.99999
	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUSTOMERS SERVED	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
Total:	176	272.02	17,977	1,226,425	165,472	0.109	68.22	7.41	1.000	0.99983

THE EMPIRE DISTRICT ELECTRIC COMPANY
CUSTOMER OUTAGE STATISTICS AND INDICES FOR MISSOURI
1/1/2018 to 1/31/2018
EXCLUDING MAJOR EVENT DAYS

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1050	1	1.75	1	105	1,606	0.001	105.00	0.07	1.000	0.99999
1091	1	1.37	8	658	693	0.012	82.25	0.95	1.000	0.99998
1092	2	4.38	11	1,491	972	0.011	135.55	1.53	1.000	0.99997
1093	1	1.67	1	100	239	0.004	100.00	0.42	1.000	0.99999
1094	3	2.22	52	2,433	1,232	0.042	46.79	1.97	1.000	0.99996
1102	1	1.28	26	2,022	470	0.055	77.77	4.30	1.000	0.99990
1103	1	0.55	104	3,432	977	0.106	33.00	3.51	1.000	0.99992
1142	1	1.00	1	60	214	0.005	60.00	0.28	1.000	0.99999
1241	1	4.30	4	1,034	854	0.005	258.50	1.21	1.000	0.99997
1265	4	4.78	216	17,651	1,283	0.168	81.72	13.76	1.000	0.99969
1271	1	1.88	965	109,897	965	1.000	113.88	113.88	1.000	0.99745
1282	1	0.37	26	574	694	0.037	22.08	0.83	1.000	0.99998
1284	1	0.40	81	2,003	949	0.085	24.73	2.11	1.000	0.99995
1285	1	3.40	1	204	1,093	0.001	204.00	0.19	1.000	0.99999
1312	2	2.41	2	145	939	0.002	72.50	0.15	1.000	0.99999
1451	1	1.18	12	858	528	0.023	71.50	1.63	1.000	0.99996
1841	1	2.23	1	134	652	0.002	134.00	0.21	1.000	0.99999

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1843	1	0.90	18	976	1,079	0.017	54.22	0.90	1.000	0.99998
2092	2	5.87	2	352	919	0.002	176.00	0.38	1.000	0.99999
2171	2	3.74	565	88,990	564	1.002	157.50	157.78	1.002	0.99647
2212	1	1.45	1	87	1,294	0.001	87.00	0.07	1.000	0.99999
2621	2	1.42	1,169	28,638	1,170	0.999	24.50	24.48	1.001	0.99945
2921	3	4.75	383	55,095	375	1.021	143.85	146.92	1.000	0.99671
2951	1	1.30	1	78	1,401	0.001	78.00	0.06	1.000	0.99999
2961	3	3.46	46	3,301	648	0.071	71.76	5.09	1.000	0.99989
3121	5	9.14	1,142	98,460	1,132	1.009	86.22	86.98	1.009	0.99805
3122	2	1.13	79	2,720	851	0.093	34.43	3.20	1.000	0.99993
3123	1	0.58	1,055	37,100	1,055	1.000	35.17	35.17	1.000	0.99921
3221	4	2.48	18	731	1,245	0.014	40.61	0.59	1.000	0.99999
3222	1	2.53	652	99,712	773	0.843	152.93	128.99	1.000	0.99711
3232	1	1.65	1	99	427	0.002	99.00	0.23	1.000	0.99999
3301	1	5.25	17	5,364	740	0.023	315.53	7.25	1.000	0.99984
3302	2	5.60	96	15,976	902	0.106	166.42	17.71	1.000	0.99960
3303	2	1.33	991	12,008	972	1.020	12.12	12.35	1.020	0.99972
3304	1	1.57	154	14,418	1,075	0.143	93.62	13.41	1.000	0.99970
3311	1	0.68	1	41	536	0.002	41.00	0.08	1.000	0.99999
3423	2	2.10	2	126	387	0.005	63.00	0.33	1.000	0.99999
3472	3	2.82	112	6,727	1,582	0.071	60.06	4.25	1.000	0.99990
3553	3	4.17	19	1,487	1,040	0.018	78.26	1.43	1.000	0.99997

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
3591	2	4.68	2	281	1,223	0.002	140.50	0.23	1.000	0.99999
3621	1	1.10	33	2,186	1,555	0.021	66.24	1.41	1.000	0.99997
3661	2	0.66	93	1,965	1,029	0.090	21.13	1.91	1.000	0.99996
3673	1	1.82	1	109	268	0.004	109.00	0.41	1.000	0.99999
3701	1	2.52	493	74,443	493	1.000	151.00	151.00	1.000	0.99662
3702	3	5.91	630	104,286	611	1.031	165.53	170.68	1.031	0.99618
3751	1	2.08	1	125	885	0.001	125.00	0.14	1.000	0.99999
3871	2	4.07	14	897	1,354	0.010	64.07	0.66	1.000	0.99999
3872	1	5.07	1	304	1,067	0.001	304.00	0.28	1.000	0.99999
3873	1	0.73	798	35,364	798	1.000	44.32	44.32	1.000	0.99901
3878	2	2.27	5	363	796	0.006	72.60	0.46	1.000	0.99999
3891	2	2.11	105	7,030	457	0.230	66.95	15.38	1.000	0.99966
3893	1	0.95	1	57	1,115	0.001	57.00	0.05	1.000	0.99999
3903	1	3.15	14	2,651	299	0.047	189.36	8.87	1.000	0.99980
3913	1	0.83	12	604	819	0.015	50.33	0.74	1.000	0.99998
3914	1	2.03	1	122	375	0.003	122.00	0.33	1.000	0.99999
3952	3	19.95	43	2,001	1,273	0.034	46.53	1.57	1.000	0.99996
3953	1	1.00	6	360	524	0.011	60.00	0.69	1.000	0.99998
3981	3	2.00	3,006	36,563	1,503	2.000	12.16	24.33	2.000	0.99946
3982	5	7.79	37	2,574	1,771	0.021	69.57	1.45	1.000	0.99997
3991	1	1.02	1	61	730	0.001	61.00	0.08	1.000	0.99999
4102	3	5.80	25	2,707	904	0.028	108.28	2.99	1.000	0.99993

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
4142	1	1.17	1	70	598	0.002	70.00	0.12	1.000	0.99999
4151	1	0.88	172	9,116	172	1.000	53.00	53.00	1.000	0.99881
4152	1	0.87	241	12,532	241	1.000	52.00	52.00	1.000	0.99884
4153	1	0.90	1,297	70,038	1,297	1.000	54.00	54.00	1.000	0.99879
4154	2	4.17	1,276	102,646	1,218	1.048	80.44	84.27	1.048	0.99811
4171	2	2.05	45	2,565	678	0.066	57.00	3.78	1.000	0.99992
4172	3	2.89	3	173	1,725	0.002	57.67	0.10	1.000	0.99999
4211	1	2.27	4	546	710	0.006	136.50	0.77	1.000	0.99998
4212	1	1.68	36	3,645	820	0.044	101.25	4.45	1.000	0.99990
4223	1	1.03	1	62	917	0.001	62.00	0.07	1.000	0.99999
4224	2	4.28	7	899	757	0.009	128.43	1.19	1.000	0.99997
4312	2	1.69	16	820	844	0.019	51.25	0.97	1.000	0.99998
4313	1	2.38	1	143	535	0.002	143.00	0.27	1.000	0.99999
433	1	0.53	1	32	81	0.012	32.00	0.40	1.000	0.99999
4331	1	1.05	1	63	313	0.003	63.00	0.20	1.000	0.99999
4333	2	4.68	2	281	684	0.003	140.50	0.41	1.000	0.99999
4334	1	2.45	1	147	366	0.003	147.00	0.40	1.000	0.99999
4341	3	4.82	13	922	1,817	0.007	70.92	0.51	1.000	0.99999
4342	1	0.67	12	490	1,763	0.007	40.83	0.28	1.000	0.99999
4343	1	1.50	1	90	1,028	0.001	90.00	0.09	1.000	0.99999
4361	2	4.70	11	2,235	1,764	0.006	203.18	1.27	1.000	0.99997
4362	3	2.91	85	3,696	827	0.103	43.48	4.47	1.000	0.99990

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
4363	1	1.12	8	543	1,699	0.005	67.88	0.32	1.000	0.99999
4371	2	1.66	2	100	1,544	0.001	50.00	0.06	1.000	0.99999
4372	1	1.47	1	88	440	0.002	88.00	0.20	1.000	0.99999
4373	1	1.07	1	64	776	0.001	64.00	0.08	1.000	0.99999
4385	1	2.20	1	132	1,119	0.001	132.00	0.12	1.000	0.99999
4431	2	2.94	738	63,399	1,387	0.532	85.91	45.71	1.000	0.99898
4432	1	1.35	1	81	463	0.002	81.00	0.17	1.000	0.99999
4511	2	2.60	57	4,826	1,134	0.050	84.67	4.26	1.000	0.99990
4601	2	2.29	29	2,617	417	0.070	90.24	6.28	1.000	0.99986
4692	1	3.77	96	21,748	471	0.204	226.54	46.17	1.000	0.99897
4712	2	3.82	2	229	58	0.034	114.50	3.95	1.000	0.99991
5601	4	4.96	187	16,015	1,172	0.160	85.64	13.66	1.000	0.99969
5603	1	1.00	49	2,970	1,290	0.038	60.61	2.30	1.000	0.99995
5901	4	4.97	4	298	683	0.006	74.50	0.44	1.000	0.99999
5902	2	2.48	2	149	944	0.002	74.50	0.16	1.000	0.99999
5904	3	3.52	47	4,647	1,223	0.038	98.87	3.80	1.000	0.99991
6024	3	2.22	164	6,804	394	0.416	41.49	17.27	1.000	0.99961
6142	2	2.38	3	164	311	0.010	54.67	0.53	1.000	0.99999
	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUSTOMERS SERVED	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
Total:	176	272.02	17,977	1,226,425	165,472	0.109	68.22	7.41	1.000	0.99983

THE EMPIRE DISTRICT ELECTRIC COMPANY
CUSTOMER OUTAGE STATISTICS AND INDICES FOR MISSOURI
2/1/2018 to 2/28/2018
INCLUDING MAJOR EVENT DAYS

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1050	4	7.04	11	2,641	1,606	0.007	240.09	1.64	1.000	0.99996
1052	1	2.48	1	149	1,131	0.001	149.00	0.13	1.000	0.99999
1082	1	2.07	1	124	1,340	0.001	124.00	0.09	1.000	0.99999
1092	2	2.11	2	127	972	0.002	63.50	0.13	1.000	0.99999
1094	2	3.15	14	1,201	1,232	0.011	85.79	0.97	1.000	0.99998
1101	2	1.71	11	832	164	0.067	75.64	5.07	1.100	0.99987
1142	1	1.03	1	62	214	0.005	62.00	0.29	1.000	0.99999
1211	2	5.22	26	4,031	1,480	0.018	155.04	2.72	1.040	0.99993
1230	1	1.03	1	62	1,177	0.001	62.00	0.05	1.000	0.99999
1232	2	4.86	91	12,720	1,184	0.077	139.78	10.74	1.058	0.99973
1233	1	0.25	1	15	640	0.002	15.00	0.02	1.000	0.99999
1241	1	0.50	10	300	854	0.012	30.00	0.35	1.000	0.99999
1261	1	0.43	398	10,401	398	1.000	26.13	26.13	1.000	0.99935
1263	2	1.88	1,142	30,950	1,141	1.001	27.10	27.13	1.001	0.99933
1264	1	0.42	174	4,451	18	9.667	25.58	247.28	1.000	0.99387
1265	2	3.47	1,293	37,731	1,283	1.008	29.18	29.41	1.008	0.99927
1267	1	0.40	82	1,973	82	1.000	24.06	24.06	1.000	0.99940

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1282	1	1.53	1	92	694	0.001	92.00	0.13	1.000	0.99999
1454	3	2.93	36	1,236	935	0.039	34.33	1.32	1.029	0.99997
1523	1	0.78	1	47	733	0.001	47.00	0.06	1.000	0.99999
1841	1	3.90	1	234	652	0.002	234.00	0.36	1.000	0.99999
1843	1	1.22	6	443	1,079	0.006	73.83	0.41	1.000	0.99999
2091	1	0.35	1	21	882	0.001	21.00	0.02	1.000	0.99999
2172	1	2.28	1	137	223	0.004	137.00	0.61	1.000	0.99998
2212	2	4.90	298	39,208	1,294	0.230	131.57	30.30	1.088	0.99925
2511	6	8.90	6	534	619	0.010	89.00	0.86	1.000	0.99998
2621	1	2.73	1	164	1,170	0.001	164.00	0.14	1.000	0.99999
2951	2	5.82	3	503	1,401	0.002	167.67	0.36	1.000	0.99999
2962	1	1.28	1	77	257	0.004	77.00	0.30	1.000	0.99999
3121	1	0.55	1	33	1,132	0.001	33.00	0.03	1.000	0.99999
3221	3	5.44	3	327	1,245	0.002	109.00	0.26	1.000	0.99999
3311	1	2.38	66	9,479	536	0.123	143.62	17.68	1.000	0.99956
3472	1	0.55	110	3,677	1,582	0.070	33.43	2.32	1.000	0.99994
3551	1	0.38	65	1,523	1,031	0.063	23.43	1.48	1.000	0.99996
3592	1	1.97	9	1,065	1,708	0.005	118.33	0.62	1.000	0.99998
3593	1	5.45	20	6,551	929	0.022	327.55	7.05	1.000	0.99983
3621	6	8.31	76	5,496	1,555	0.049	72.32	3.53	1.013	0.99991
3662	1	1.25	1	75	783	0.001	75.00	0.10	1.000	0.99999
3691	1	1.73	22	2,290	1,163	0.019	104.09	1.97	1.000	0.99995

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
3694	3	2.71	1,382	43,466	1,330	1.039	31.45	32.68	1.039	0.99919
3701	1	0.45	1	27	493	0.002	27.00	0.05	1.000	0.99999
3871	1	1.32	1	79	1,354	0.001	79.00	0.06	1.000	0.99999
3872	1	3.07	7	1,294	1,067	0.007	184.86	1.21	1.000	0.99997
3891	1	0.52	3	94	457	0.007	31.33	0.21	1.000	0.99999
3892	1	7.70	6	2,773	504	0.012	462.17	5.50	1.000	0.99986
3893	1	0.47	5	144	1,115	0.004	28.80	0.13	1.000	0.99999
3894	1	1.25	1	75	117	0.009	75.00	0.64	1.000	0.99998
3901	1	1.00	1	60	878	0.001	60.00	0.07	1.000	0.99999
3913	2	3.15	18	1,530	819	0.022	85.00	1.87	1.000	0.99995
3914	1	0.88	1	53	375	0.003	53.00	0.14	1.000	0.99999
3971	2	1.51	2	91	665	0.003	45.50	0.14	1.000	0.99999
3981	4	3.56	23	806	1,503	0.015	35.04	0.54	1.095	0.99999
3982	2	4.22	8	641	1,771	0.005	80.13	0.36	1.000	0.99999
3991	1	0.90	6	327	730	0.008	54.50	0.45	1.000	0.99999
4031	1	2.27	13	1,770	706	0.018	136.15	2.51	1.000	0.99994
4101	1	2.97	1	178	592	0.002	178.00	0.30	1.000	0.99999
4138	1	1.90	5	572	745	0.007	114.40	0.77	1.000	0.99998
4142	3	5.93	627	68,765	598	1.048	109.67	114.99	1.048	0.99715
4153	1	1.08	1	65	1,297	0.001	65.00	0.05	1.000	0.99999
4155	1	2.52	1	151	2,151	0.000	151.00	0.07	1.000	0.99999
4171	2	1.73	29	1,878	678	0.043	64.76	2.77	1.036	0.99993

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
4172	1	0.77	196	9,189	1,725	0.114	46.88	5.33	1.000	0.99987
4303	1	0.92	20	1,113	995	0.020	55.65	1.12	1.000	0.99997
4304	1	1.03	1	62	234	0.004	62.00	0.26	1.000	0.99999
4341	2	1.95	70	3,401	1,817	0.039	48.59	1.87	1.000	0.99995
4361	1	2.18	1	131	1,764	0.001	131.00	0.07	1.000	0.99999
4362	1	0.87	1	52	827	0.001	52.00	0.06	1.000	0.99999
4363	1	0.40	21	515	1,699	0.012	24.52	0.30	1.000	0.99999
4371	3	9.12	48	3,856	1,544	0.031	80.33	2.50	1.021	0.99994
4372	1	4.08	1	245	440	0.002	245.00	0.56	1.000	0.99999
4385	1	0.73	1	44	1,119	0.001	44.00	0.04	1.000	0.99999
4431	5	4.69	34	2,104	1,387	0.025	61.88	1.52	1.097	0.99996
4432	1	4.67	1	280	463	0.002	280.00	0.60	1.000	0.99999
4475	1	0.35	14	306	14	1.000	21.86	21.86	1.000	0.99946
4476	1	0.35	32	701	32	1.000	21.91	21.91	1.000	0.99946
4602	1	8.10	4	1,946	947	0.004	486.50	2.05	1.000	0.99995
4692	1	3.05	47	8,634	471	0.100	183.70	18.33	1.000	0.99955
5601	2	3.47	12	1,366	1,172	0.010	113.83	1.17	1.000	0.99997
5602	1	1.60	1	96	681	0.001	96.00	0.14	1.000	0.99999
5603	3	3.06	77	5,194	1,290	0.060	67.45	4.03	1.000	0.99990
5641	1	5.82	322	112,383	322	1.000	349.02	349.02	1.000	0.99134
5902	1	0.78	1	47	944	0.001	47.00	0.05	1.000	0.99999
6141	1	0.60	1	36	632	0.002	36.00	0.06	1.000	0.99999

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUSTOMERS SERVED	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
Total:	130	212.38	7,036	457,522	165,472	0.043	65.03	2.76	1.025	0.99993

THE EMPIRE DISTRICT ELECTRIC COMPANY
CUSTOMER OUTAGE STATISTICS AND INDICES FOR MISSOURI
2/1/2018 to 2/28/2018
EXCLUDING MAJOR EVENT DAYS

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1050	4	7.04	11	2,641	1,606	0.007	240.09	1.64	1.000	0.99996
1052	1	2.48	1	149	1,131	0.001	149.00	0.13	1.000	0.99999
1082	1	2.07	1	124	1,340	0.001	124.00	0.09	1.000	0.99999
1092	2	2.11	2	127	972	0.002	63.50	0.13	1.000	0.99999
1094	2	3.15	14	1,201	1,232	0.011	85.79	0.97	1.000	0.99998
1101	2	1.71	11	832	164	0.067	75.64	5.07	1.100	0.99987
1142	1	1.03	1	62	214	0.005	62.00	0.29	1.000	0.99999
1211	2	5.22	26	4,031	1,480	0.018	155.04	2.72	1.040	0.99993
1230	1	1.03	1	62	1,177	0.001	62.00	0.05	1.000	0.99999
1232	2	4.86	91	12,720	1,184	0.077	139.78	10.74	1.058	0.99973
1233	1	0.25	1	15	640	0.002	15.00	0.02	1.000	0.99999
1241	1	0.50	10	300	854	0.012	30.00	0.35	1.000	0.99999
1261	1	0.43	398	10,401	398	1.000	26.13	26.13	1.000	0.99935
1263	2	1.88	1,142	30,950	1,141	1.001	27.10	27.13	1.001	0.99933
1264	1	0.42	174	4,451	18	9.667	25.58	247.28	1.000	0.99387
1265	2	3.47	1,293	37,731	1,283	1.008	29.18	29.41	1.008	0.99927
1267	1	0.40	82	1,973	82	1.000	24.06	24.06	1.000	0.99940

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1282	1	1.53	1	92	694	0.001	92.00	0.13	1.000	0.99999
1454	3	2.93	36	1,236	935	0.039	34.33	1.32	1.029	0.99997
1523	1	0.78	1	47	733	0.001	47.00	0.06	1.000	0.99999
1841	1	3.90	1	234	652	0.002	234.00	0.36	1.000	0.99999
1843	1	1.22	6	443	1,079	0.006	73.83	0.41	1.000	0.99999
2091	1	0.35	1	21	882	0.001	21.00	0.02	1.000	0.99999
2172	1	2.28	1	137	223	0.004	137.00	0.61	1.000	0.99998
2212	2	4.90	298	39,208	1,294	0.230	131.57	30.30	1.088	0.99925
2511	6	8.90	6	534	619	0.010	89.00	0.86	1.000	0.99998
2621	1	2.73	1	164	1,170	0.001	164.00	0.14	1.000	0.99999
2951	2	5.82	3	503	1,401	0.002	167.67	0.36	1.000	0.99999
2962	1	1.28	1	77	257	0.004	77.00	0.30	1.000	0.99999
3121	1	0.55	1	33	1,132	0.001	33.00	0.03	1.000	0.99999
3221	3	5.44	3	327	1,245	0.002	109.00	0.26	1.000	0.99999
3311	1	2.38	66	9,479	536	0.123	143.62	17.68	1.000	0.99956
3472	1	0.55	110	3,677	1,582	0.070	33.43	2.32	1.000	0.99994
3551	1	0.38	65	1,523	1,031	0.063	23.43	1.48	1.000	0.99996
3592	1	1.97	9	1,065	1,708	0.005	118.33	0.62	1.000	0.99998
3593	1	5.45	20	6,551	929	0.022	327.55	7.05	1.000	0.99983
3621	6	8.31	76	5,496	1,555	0.049	72.32	3.53	1.013	0.99991
3662	1	1.25	1	75	783	0.001	75.00	0.10	1.000	0.99999
3691	1	1.73	22	2,290	1,163	0.019	104.09	1.97	1.000	0.99995

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
3694	3	2.71	1,382	43,466	1,330	1.039	31.45	32.68	1.039	0.99919
3701	1	0.45	1	27	493	0.002	27.00	0.05	1.000	0.99999
3871	1	1.32	1	79	1,354	0.001	79.00	0.06	1.000	0.99999
3872	1	3.07	7	1,294	1,067	0.007	184.86	1.21	1.000	0.99997
3891	1	0.52	3	94	457	0.007	31.33	0.21	1.000	0.99999
3892	1	7.70	6	2,773	504	0.012	462.17	5.50	1.000	0.99986
3893	1	0.47	5	144	1,115	0.004	28.80	0.13	1.000	0.99999
3894	1	1.25	1	75	117	0.009	75.00	0.64	1.000	0.99998
3901	1	1.00	1	60	878	0.001	60.00	0.07	1.000	0.99999
3913	2	3.15	18	1,530	819	0.022	85.00	1.87	1.000	0.99995
3914	1	0.88	1	53	375	0.003	53.00	0.14	1.000	0.99999
3971	2	1.51	2	91	665	0.003	45.50	0.14	1.000	0.99999
3981	4	3.56	23	806	1,503	0.015	35.04	0.54	1.095	0.99999
3982	2	4.22	8	641	1,771	0.005	80.13	0.36	1.000	0.99999
3991	1	0.90	6	327	730	0.008	54.50	0.45	1.000	0.99999
4031	1	2.27	13	1,770	706	0.018	136.15	2.51	1.000	0.99994
4101	1	2.97	1	178	592	0.002	178.00	0.30	1.000	0.99999
4138	1	1.90	5	572	745	0.007	114.40	0.77	1.000	0.99998
4142	3	5.93	627	68,765	598	1.048	109.67	114.99	1.048	0.99715
4153	1	1.08	1	65	1,297	0.001	65.00	0.05	1.000	0.99999
4155	1	2.52	1	151	2,151	0.000	151.00	0.07	1.000	0.99999
4171	2	1.73	29	1,878	678	0.043	64.76	2.77	1.036	0.99993

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
4172	1	0.77	196	9,189	1,725	0.114	46.88	5.33	1.000	0.99987
4303	1	0.92	20	1,113	995	0.020	55.65	1.12	1.000	0.99997
4304	1	1.03	1	62	234	0.004	62.00	0.26	1.000	0.99999
4341	2	1.95	70	3,401	1,817	0.039	48.59	1.87	1.000	0.99995
4361	1	2.18	1	131	1,764	0.001	131.00	0.07	1.000	0.99999
4362	1	0.87	1	52	827	0.001	52.00	0.06	1.000	0.99999
4363	1	0.40	21	515	1,699	0.012	24.52	0.30	1.000	0.99999
4371	3	9.12	48	3,856	1,544	0.031	80.33	2.50	1.021	0.99994
4372	1	4.08	1	245	440	0.002	245.00	0.56	1.000	0.99999
4385	1	0.73	1	44	1,119	0.001	44.00	0.04	1.000	0.99999
4431	5	4.69	34	2,104	1,387	0.025	61.88	1.52	1.097	0.99996
4432	1	4.67	1	280	463	0.002	280.00	0.60	1.000	0.99999
4475	1	0.35	14	306	14	1.000	21.86	21.86	1.000	0.99946
4476	1	0.35	32	701	32	1.000	21.91	21.91	1.000	0.99946
4602	1	8.10	4	1,946	947	0.004	486.50	2.05	1.000	0.99995
4692	1	3.05	47	8,634	471	0.100	183.70	18.33	1.000	0.99955
5601	2	3.47	12	1,366	1,172	0.010	113.83	1.17	1.000	0.99997
5602	1	1.60	1	96	681	0.001	96.00	0.14	1.000	0.99999
5603	3	3.06	77	5,194	1,290	0.060	67.45	4.03	1.000	0.99990
5641	1	5.82	322	112,383	322	1.000	349.02	349.02	1.000	0.99134
5902	1	0.78	1	47	944	0.001	47.00	0.05	1.000	0.99999
6141	1	0.60	1	36	632	0.002	36.00	0.06	1.000	0.99999

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUSTOMERS SERVED	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
Total:	130	212.38	7,036	457,522	165,472	0.043	65.03	2.76	1.025	0.99993

THE EMPIRE DISTRICT ELECTRIC COMPANY
CUSTOMER OUTAGE STATISTICS AND INDICES FOR MISSOURI
3/1/2018 to 3/31/2018
INCLUDING MAJOR EVENT DAYS

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1082	4	6.49	11	816	1,340	0.008	74.18	0.61	1.222	0.99999
1092	8	9.57	98	11,123	972	0.101	113.50	11.44	1.054	0.99974
1093	5	4.08	32	1,882	239	0.134	58.81	7.87	1.000	0.99982
1094	2	5.50	2	330	1,232	0.002	165.00	0.27	1.000	0.99999
1103	1	0.80	1	48	977	0.001	48.00	0.05	1.000	0.99999
1141	1	1.17	1	70	902	0.001	70.00	0.08	1.000	0.99999
1142	1	0.60	8	295	214	0.037	36.88	1.38	1.000	0.99997
1211	3	4.37	23	2,349	1,480	0.016	102.13	1.59	1.000	0.99996
1230	1	0.63	1	38	1,177	0.001	38.00	0.03	1.000	0.99999
1232	2	8.20	34	6,320	1,184	0.029	185.88	5.34	1.030	0.99988
1261	1	0.77	1	46	398	0.003	46.00	0.12	1.000	0.99999
1263	1	0.98	1	59	1,141	0.001	59.00	0.05	1.000	0.99999
1271	2	2.83	19	1,768	965	0.020	93.05	1.83	1.000	0.99996
1282	1	0.78	33	1,554	694	0.048	47.09	2.24	1.000	0.99995
1284	1	1.65	1	99	949	0.001	99.00	0.10	1.000	0.99999
1311	2	2.03	117	9,186	273	0.429	78.51	33.65	1.009	0.99925
1312	1	1.42	1	85	939	0.001	85.00	0.09	1.000	0.99999

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1452	1	0.78	403	19,095	449	0.898	47.38	42.53	1.000	0.99905
1453	3	3.81	222	14,319	1,798	0.123	64.50	7.96	1.018	0.99982
1454	1	2.52	34	5,148	935	0.036	151.41	5.51	1.000	0.99988
1523	1	0.63	1	38	733	0.001	38.00	0.05	1.000	0.99999
1841	1	0.60	1	36	652	0.002	36.00	0.06	1.000	0.99999
1843	1	1.00	1	60	1,079	0.001	60.00	0.06	1.000	0.99999
2091	1	0.85	1	51	882	0.001	51.00	0.06	1.000	0.99999
2092	1	0.17	1	10	919	0.001	10.00	0.01	1.000	0.99999
2212	1	1.55	1	93	1,294	0.001	93.00	0.07	1.000	0.99999
2511	4	2.19	8	295	619	0.013	36.88	0.48	1.000	0.99999
2951	1	0.90	1	54	1,401	0.001	54.00	0.04	1.000	0.99999
3122	1	2.88	1	173	851	0.001	173.00	0.20	1.000	0.99999
3181	1	0.77	383	17,777	726	0.528	46.42	24.49	1.000	0.99945
3221	1	1.75	1	105	1,245	0.001	105.00	0.08	1.000	0.99999
3303	4	4.03	29	2,398	972	0.030	82.69	2.47	1.208	0.99994
3304	1	2.18	40	5,264	1,075	0.037	131.60	4.90	1.000	0.99989
3311	2	1.15	2	69	536	0.004	34.50	0.13	1.000	0.99999
3314	1	0.38	1	23	222	0.005	23.00	0.10	1.000	0.99999
3315	1	3.80	1	228	1,580	0.001	228.00	0.14	1.000	0.99999
3422	3	6.33	87	8,517	975	0.089	97.90	8.74	1.012	0.99980
3423	1	1.07	1	64	387	0.003	64.00	0.17	1.000	0.99999
3472	2	2.94	2	176	1,582	0.001	88.00	0.11	1.000	0.99999

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
3592	2	2.64	1,708	101,964	1,708	1.000	59.70	59.70	1.028	0.99866
3621	1	1.48	8	713	1,555	0.005	89.13	0.46	1.000	0.99999
3661	1	0.63	47	1,826	1,029	0.046	38.85	1.77	1.000	0.99996
3662	1	0.75	1	45	783	0.001	45.00	0.06	1.000	0.99999
3664	1	0.68	7	293	549	0.013	41.86	0.53	1.000	0.99999
3673	1	2.05	16	1,973	268	0.060	123.31	7.36	1.000	0.99984
3691	1	2.00	22	2,646	1,163	0.019	120.27	2.28	1.000	0.99995
3693	2	2.53	34	2,639	187	0.182	77.62	14.11	1.000	0.99968
3751	3	2.78	49	4,122	885	0.055	84.12	4.66	1.000	0.99990
3872	1	0.83	15	753	1,067	0.014	50.20	0.71	1.000	0.99998
3873	1	1.15	14	979	798	0.018	69.93	1.23	1.000	0.99997
3893	2	1.85	2	111	1,115	0.002	55.50	0.10	1.000	0.99999
3894	2	0.85	23	673	117	0.197	29.26	5.75	1.000	0.99987
3903	1	1.58	1	95	299	0.003	95.00	0.32	1.000	0.99999
3952	5	12.26	25	2,031	1,273	0.020	81.24	1.60	1.000	0.99996
3953	3	3.36	54	3,292	524	0.103	60.96	6.28	1.038	0.99986
3981	1	1.02	1	61	1,503	0.001	61.00	0.04	1.000	0.99999
3982	8	9.65	322	20,517	1,771	0.182	63.72	11.58	1.016	0.99974
3991	2	6.32	9	2,283	730	0.012	253.67	3.13	1.000	0.99993
4091	1	0.93	1	56	1,148	0.001	56.00	0.05	1.000	0.99999
4092	1	1.65	1	99	433	0.002	99.00	0.23	1.000	0.99999
4102	2	2.88	323	29,673	904	0.357	91.87	32.82	1.013	0.99926

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
4131	1	1.23	1	74	200	0.005	74.00	0.37	1.000	0.99999
4133	1	1.87	18	2,016	642	0.028	112.00	3.14	1.000	0.99993
4134	1	0.40	1	24	836	0.001	24.00	0.03	1.000	0.99999
4153	1	0.77	53	2,438	1,297	0.041	46.00	1.88	1.000	0.99996
4155	4	5.03	85	7,214	2,151	0.040	84.87	3.35	1.133	0.99992
4172	1	1.32	1	79	1,725	0.001	79.00	0.05	1.000	0.99999
4211	1	0.82	886	43,798	710	1.248	49.43	61.69	1.000	0.99862
4303	1	1.08	33	2,150	995	0.033	65.15	2.16	1.000	0.99995
4311	1	1.18	23	1,640	857	0.027	71.30	1.91	1.000	0.99996
4331	1	0.55	532	17,680	313	1.700	33.23	56.49	1.000	0.99873
4341	4	4.64	89	6,234	1,817	0.049	70.04	3.43	1.023	0.99992
4342	2	1.58	58	2,793	1,763	0.033	48.16	1.58	1.000	0.99996
4361	19	14.66	2,471	191,851	1,764	1.401	77.64	108.76	1.209	0.99756
4362	3	3.03	829	57,300	827	1.002	69.12	69.29	1.002	0.99845
4363	1	0.73	1,415	62,778	1,699	0.833	44.37	36.95	1.000	0.99917
4371	3	3.96	3	238	1,544	0.002	79.33	0.15	1.000	0.99999
4372	1	2.65	1	159	440	0.002	159.00	0.36	1.000	0.99999
4381	1	0.43	1	26	435	0.002	26.00	0.06	1.000	0.99999
4431	6	4.66	1,399	21,422	1,387	1.009	15.31	15.44	1.011	0.99965
4432	2	4.48	42	5,679	463	0.091	135.21	12.27	1.235	0.99973
4601	3	2.72	30	942	417	0.072	31.40	2.26	1.034	0.99995
4692	3	4.82	10	793	471	0.021	79.30	1.68	1.111	0.99996

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
4714	1	1.20	1	72	328	0.003	72.00	0.22	1.000	0.99999
5601	1	0.78	1	47	1,172	0.001	47.00	0.04	1.000	0.99999
5602	2	0.96	1,305	37,688	681	1.916	28.88	55.34	1.916	0.99876
5603	3	1.92	153	5,933	1,290	0.119	38.78	4.60	1.000	0.99990
5902	1	6.68	1	401	944	0.001	401.00	0.42	1.000	0.99999
5904	1	1.73	1	104	1,223	0.001	104.00	0.09	1.000	0.99999
6024	2	1.75	9	574	394	0.023	63.78	1.46	1.000	0.99997
	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUSTOMERS SERVED	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
Total:	186	231.65	13,741	759,052	165,472	0.083	55.24	4.59	1.093	0.99990

THE EMPIRE DISTRICT ELECTRIC COMPANY
CUSTOMER OUTAGE STATISTICS AND INDICES FOR MISSOURI
3/1/2018 to 3/31/2018
EXCLUDING MAJOR EVENT DAYS

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1082	4	6.49	11	816	1,340	0.008	74.18	0.61	1.222	0.99999
1092	8	9.57	98	11,123	972	0.101	113.50	11.44	1.054	0.99974
1093	5	4.08	32	1,882	239	0.134	58.81	7.87	1.000	0.99982
1094	2	5.50	2	330	1,232	0.002	165.00	0.27	1.000	0.99999
1103	1	0.80	1	48	977	0.001	48.00	0.05	1.000	0.99999
1141	1	1.17	1	70	902	0.001	70.00	0.08	1.000	0.99999
1142	1	0.60	8	295	214	0.037	36.88	1.38	1.000	0.99997
1211	3	4.37	23	2,349	1,480	0.016	102.13	1.59	1.000	0.99996
1230	1	0.63	1	38	1,177	0.001	38.00	0.03	1.000	0.99999
1232	2	8.20	34	6,320	1,184	0.029	185.88	5.34	1.030	0.99988
1261	1	0.77	1	46	398	0.003	46.00	0.12	1.000	0.99999
1263	1	0.98	1	59	1,141	0.001	59.00	0.05	1.000	0.99999
1271	2	2.83	19	1,768	965	0.020	93.05	1.83	1.000	0.99996
1282	1	0.78	33	1,554	694	0.048	47.09	2.24	1.000	0.99995
1284	1	1.65	1	99	949	0.001	99.00	0.10	1.000	0.99999
1311	2	2.03	117	9,186	273	0.429	78.51	33.65	1.009	0.99925
1312	1	1.42	1	85	939	0.001	85.00	0.09	1.000	0.99999

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1452	1	0.78	403	19,095	449	0.898	47.38	42.53	1.000	0.99905
1453	3	3.81	222	14,319	1,798	0.123	64.50	7.96	1.018	0.99982
1454	1	2.52	34	5,148	935	0.036	151.41	5.51	1.000	0.99988
1523	1	0.63	1	38	733	0.001	38.00	0.05	1.000	0.99999
1841	1	0.60	1	36	652	0.002	36.00	0.06	1.000	0.99999
1843	1	1.00	1	60	1,079	0.001	60.00	0.06	1.000	0.99999
2091	1	0.85	1	51	882	0.001	51.00	0.06	1.000	0.99999
2092	1	0.17	1	10	919	0.001	10.00	0.01	1.000	0.99999
2212	1	1.55	1	93	1,294	0.001	93.00	0.07	1.000	0.99999
2511	4	2.19	8	295	619	0.013	36.88	0.48	1.000	0.99999
2951	1	0.90	1	54	1,401	0.001	54.00	0.04	1.000	0.99999
3122	1	2.88	1	173	851	0.001	173.00	0.20	1.000	0.99999
3181	1	0.77	383	17,777	726	0.528	46.42	24.49	1.000	0.99945
3221	1	1.75	1	105	1,245	0.001	105.00	0.08	1.000	0.99999
3303	4	4.03	29	2,398	972	0.030	82.69	2.47	1.208	0.99994
3304	1	2.18	40	5,264	1,075	0.037	131.60	4.90	1.000	0.99989
3311	2	1.15	2	69	536	0.004	34.50	0.13	1.000	0.99999
3314	1	0.38	1	23	222	0.005	23.00	0.10	1.000	0.99999
3315	1	3.80	1	228	1,580	0.001	228.00	0.14	1.000	0.99999
3422	3	6.33	87	8,517	975	0.089	97.90	8.74	1.012	0.99980
3423	1	1.07	1	64	387	0.003	64.00	0.17	1.000	0.99999
3472	2	2.94	2	176	1,582	0.001	88.00	0.11	1.000	0.99999

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
3592	2	2.64	1,708	101,964	1,708	1.000	59.70	59.70	1.028	0.99866
3621	1	1.48	8	713	1,555	0.005	89.13	0.46	1.000	0.99999
3661	1	0.63	47	1,826	1,029	0.046	38.85	1.77	1.000	0.99996
3662	1	0.75	1	45	783	0.001	45.00	0.06	1.000	0.99999
3664	1	0.68	7	293	549	0.013	41.86	0.53	1.000	0.99999
3673	1	2.05	16	1,973	268	0.060	123.31	7.36	1.000	0.99984
3691	1	2.00	22	2,646	1,163	0.019	120.27	2.28	1.000	0.99995
3693	2	2.53	34	2,639	187	0.182	77.62	14.11	1.000	0.99968
3751	3	2.78	49	4,122	885	0.055	84.12	4.66	1.000	0.99990
3872	1	0.83	15	753	1,067	0.014	50.20	0.71	1.000	0.99998
3873	1	1.15	14	979	798	0.018	69.93	1.23	1.000	0.99997
3893	2	1.85	2	111	1,115	0.002	55.50	0.10	1.000	0.99999
3894	2	0.85	23	673	117	0.197	29.26	5.75	1.000	0.99987
3903	1	1.58	1	95	299	0.003	95.00	0.32	1.000	0.99999
3952	5	12.26	25	2,031	1,273	0.020	81.24	1.60	1.000	0.99996
3953	3	3.36	54	3,292	524	0.103	60.96	6.28	1.038	0.99986
3981	1	1.02	1	61	1,503	0.001	61.00	0.04	1.000	0.99999
3982	8	9.65	322	20,517	1,771	0.182	63.72	11.58	1.016	0.99974
3991	2	6.32	9	2,283	730	0.012	253.67	3.13	1.000	0.99993
4091	1	0.93	1	56	1,148	0.001	56.00	0.05	1.000	0.99999
4092	1	1.65	1	99	433	0.002	99.00	0.23	1.000	0.99999
4102	2	2.88	323	29,673	904	0.357	91.87	32.82	1.013	0.99926

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
4131	1	1.23	1	74	200	0.005	74.00	0.37	1.000	0.99999
4133	1	1.87	18	2,016	642	0.028	112.00	3.14	1.000	0.99993
4134	1	0.40	1	24	836	0.001	24.00	0.03	1.000	0.99999
4153	1	0.77	53	2,438	1,297	0.041	46.00	1.88	1.000	0.99996
4155	4	5.03	85	7,214	2,151	0.040	84.87	3.35	1.133	0.99992
4172	1	1.32	1	79	1,725	0.001	79.00	0.05	1.000	0.99999
4211	1	0.82	886	43,798	710	1.248	49.43	61.69	1.000	0.99862
4303	1	1.08	33	2,150	995	0.033	65.15	2.16	1.000	0.99995
4311	1	1.18	23	1,640	857	0.027	71.30	1.91	1.000	0.99996
4331	1	0.55	532	17,680	313	1.700	33.23	56.49	1.000	0.99873
4341	4	4.64	89	6,234	1,817	0.049	70.04	3.43	1.023	0.99992
4342	2	1.58	58	2,793	1,763	0.033	48.16	1.58	1.000	0.99996
4361	19	14.66	2,471	191,851	1,764	1.401	77.64	108.76	1.209	0.99756
4362	3	3.03	829	57,300	827	1.002	69.12	69.29	1.002	0.99845
4363	1	0.73	1,415	62,778	1,699	0.833	44.37	36.95	1.000	0.99917
4371	3	3.96	3	238	1,544	0.002	79.33	0.15	1.000	0.99999
4372	1	2.65	1	159	440	0.002	159.00	0.36	1.000	0.99999
4381	1	0.43	1	26	435	0.002	26.00	0.06	1.000	0.99999
4431	6	4.66	1,399	21,422	1,387	1.009	15.31	15.44	1.011	0.99965
4432	2	4.48	42	5,679	463	0.091	135.21	12.27	1.235	0.99973
4601	3	2.72	30	942	417	0.072	31.40	2.26	1.034	0.99995
4692	3	4.82	10	793	471	0.021	79.30	1.68	1.111	0.99996

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
4714	1	1.20	1	72	328	0.003	72.00	0.22	1.000	0.99999
5601	1	0.78	1	47	1,172	0.001	47.00	0.04	1.000	0.99999
5602	2	0.96	1,305	37,688	681	1.916	28.88	55.34	1.916	0.99876
5603	3	1.92	153	5,933	1,290	0.119	38.78	4.60	1.000	0.99990
5902	1	6.68	1	401	944	0.001	401.00	0.42	1.000	0.99999
5904	1	1.73	1	104	1,223	0.001	104.00	0.09	1.000	0.99999
6024	2	1.75	9	574	394	0.023	63.78	1.46	1.000	0.99997
	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUSTOMERS SERVED	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
Total:	186	231.65	13,741	759,052	165,472	0.083	55.24	4.59	1.093	0.99990

THE EMPIRE DISTRICT ELECTRIC COMPANY
CUSTOMER OUTAGE STATISTICS AND INDICES FOR MISSOURI
4/1/2018 to 4/30/2018
INCLUDING MAJOR EVENT DAYS

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1082	2	2.42	16	1,293	1,340	0.012	80.81	0.96	1.000	0.99998
1101	1	0.87	1	52	164	0.006	52.00	0.32	1.000	0.99999
1102	1	0.73	27	1,208	470	0.057	44.74	2.57	1.000	0.99994
1103	1	0.82	21	1,043	977	0.021	49.67	1.07	1.000	0.99998
1142	1	0.60	1	36	214	0.005	36.00	0.17	1.000	0.99999
1211	2	3.70	2	222	1,480	0.001	111.00	0.15	1.000	0.99999
1242	2	2.93	25	2,258	679	0.037	90.32	3.33	1.000	0.99992
1243	1	0.95	1	57	1,208	0.001	57.00	0.05	1.000	0.99999
1263	1	1.12	1	67	1,141	0.001	67.00	0.06	1.000	0.99999
1271	1	1.37	1	82	965	0.001	82.00	0.08	1.000	0.99999
1282	1	0.70	26	1,117	694	0.037	42.96	1.61	1.000	0.99996
1284	2	2.20	5	368	949	0.005	73.60	0.39	1.000	0.99999
1452	1	1.43	1	86	449	0.002	86.00	0.19	1.000	0.99999
1453	2	1.48	2	89	1,798	0.001	44.50	0.05	1.000	0.99999
1521	1	1.33	7	560	365	0.019	80.00	1.53	1.000	0.99996
1523	1	1.40	1	84	733	0.001	84.00	0.11	1.000	0.99999
1841	5	7.80	8	581	652	0.012	72.63	0.89	1.000	0.99998

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1843	1	0.50	18	548	1,079	0.017	30.44	0.51	1.000	0.99999
2211	6	2.05	136	2,639	723	0.188	19.40	3.65	1.528	0.99992
2212	4	4.26	773	8,888	1,294	0.597	11.50	6.87	1.024	0.99984
2951	1	1.03	5	313	1,401	0.004	62.60	0.22	1.000	0.99999
2961	4	7.53	22	2,514	648	0.034	114.27	3.88	1.000	0.99991
3041	1	0.83	1	50	81	0.012	50.00	0.62	1.000	0.99999
3122	3	10.77	14	4,468	851	0.016	319.14	5.25	1.000	0.99988
3123	2	9.52	32	8,880	1,055	0.030	277.50	8.42	1.000	0.99981
3221	3	3.66	65	4,971	1,245	0.052	76.48	3.99	1.102	0.99991
3222	1	1.30	45	3,516	773	0.058	78.13	4.55	1.000	0.99989
3232	1	0.65	9	351	427	0.021	39.00	0.82	1.000	0.99998
3304	1	2.73	50	8,232	1,075	0.047	164.64	7.66	1.000	0.99982
3311	1	2.22	1	133	536	0.002	133.00	0.25	1.000	0.99999
3313	1	1.33	1	80	1,344	0.001	80.00	0.06	1.000	0.99999
3314	1	0.72	1	43	222	0.005	43.00	0.19	1.000	0.99999
3422	1	0.87	975	50,829	975	1.000	52.13	52.13	1.000	0.99879
3471	1	1.45	1	87	170	0.006	87.00	0.51	1.000	0.99999
3472	3	5.17	136	11,129	1,582	0.086	81.83	7.03	1.079	0.99984
3551	1	1.10	1	66	1,031	0.001	66.00	0.06	1.000	0.99999
3553	1	0.70	1	42	1,040	0.001	42.00	0.04	1.000	0.99999
3591	1	0.07	1,223	6,013	1,223	1.000	4.92	4.92	1.000	0.99989
3592	2	3.47	19	2,323	1,708	0.011	122.26	1.36	1.000	0.99997

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
3621	2	3.65	2	219	1,555	0.001	109.50	0.14	1.000	0.99999
3662	1	0.90	1	54	783	0.001	54.00	0.07	1.000	0.99999
3663	1	1.33	18	1,443	737	0.024	80.17	1.96	1.000	0.99995
3664	1	0.90	1	54	549	0.002	54.00	0.10	1.000	0.99999
3692	1	3.58	98	21,050	410	0.239	214.80	51.34	1.000	0.99881
3871	1	2.17	41	5,355	1,354	0.030	130.61	3.95	1.000	0.99991
3878	2	4.12	2	247	796	0.003	123.50	0.31	1.000	0.99999
3893	4	4.18	62	3,724	1,115	0.056	60.06	3.34	1.000	0.99992
3901	1	0.92	1	55	878	0.001	55.00	0.06	1.000	0.99999
3903	1	1.22	1	73	299	0.003	73.00	0.24	1.000	0.99999
3914	2	5.10	66	6,974	375	0.176	105.67	18.60	1.000	0.99957
3951	2	2.90	69	6,643	930	0.074	96.28	7.14	1.062	0.99983
3952	1	0.78	1	47	1,273	0.001	47.00	0.04	1.000	0.99999
3971	1	0.90	1	54	665	0.002	54.00	0.08	1.000	0.99999
3981	5	8.64	9	1,105	1,503	0.006	122.78	0.74	1.000	0.99998
3982	2	1.35	138	5,332	1,771	0.078	38.64	3.01	1.000	0.99993
3991	1	1.85	21	2,344	730	0.029	111.62	3.21	1.000	0.99993
4092	1	1.63	1	98	433	0.002	98.00	0.23	1.000	0.99999
4133	1	0.97	26	1,521	642	0.040	58.50	2.37	1.000	0.99995
4137	1	1.37	5	413	797	0.006	82.60	0.52	1.000	0.99999
4142	1	1.17	37	2,617	598	0.062	70.73	4.38	1.000	0.99990
4154	1	2.48	1	149	1,218	0.001	149.00	0.12	1.000	0.99999

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
4155	2	2.40	1,437	102,064	2,151	0.668	71.03	47.45	1.013	0.99890
4171	2	1.50	2	90	678	0.003	45.00	0.13	1.000	0.99999
4172	2	3.46	2	208	1,725	0.001	104.00	0.12	1.000	0.99999
4173	1	3.22	23	4,444	635	0.036	193.22	7.00	1.000	0.99984
4181	3	9.97	56	13,385	622	0.090	239.02	21.52	1.018	0.99950
4182	1	3.50	26	5,468	896	0.029	210.31	6.10	1.000	0.99986
4211	1	0.98	36	2,154	710	0.051	59.83	3.03	1.000	0.99993
4212	1	1.23	11	818	820	0.013	74.36	1.00	1.000	0.99998
4222	2	2.71	2	163	1,045	0.002	81.50	0.16	1.000	0.99999
4321	1	1.10	68	4,516	4	17.000	66.41	1129.00	1.000	0.97387
4342	1	0.95	12	692	1,763	0.007	57.67	0.39	1.000	0.99999
4343	1	1.05	25	1,596	1,028	0.024	63.84	1.55	1.000	0.99996
4361	2	1.30	105	4,592	1,764	0.060	43.73	2.60	1.000	0.99994
4362	1	0.52	1	31	827	0.001	31.00	0.04	1.000	0.99999
4363	1	0.92	4	221	1,699	0.002	55.25	0.13	1.000	0.99999
4371	1	1.23	1	74	1,544	0.001	74.00	0.05	1.000	0.99999
4373	2	1.84	2	110	776	0.003	55.00	0.14	1.000	0.99999
4381	1	1.48	1	89	435	0.002	89.00	0.20	1.000	0.99999
4431	10	10.92	41	3,588	1,387	0.030	87.51	2.59	1.000	0.99994
4432	2	2.60	2	156	463	0.004	78.00	0.34	1.000	0.99999
4601	3	7.30	14	2,716	417	0.034	194.00	6.51	1.077	0.99985
4602	1	1.27	1	76	947	0.001	76.00	0.08	1.000	0.99999

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
4712	6	9.06	976	149,923	58	16.828	153.61	2584.88	1.348	0.94016
5601	2	5.99	40	6,636	1,172	0.034	165.90	5.66	1.000	0.99987
5602	1	0.45	1	27	681	0.001	27.00	0.04	1.000	0.99999
5603	2	3.34	2	200	1,290	0.002	100.00	0.16	1.000	0.99999
5904	2	4.40	5	971	1,223	0.004	194.20	0.79	1.000	0.99998
5905	3	3.45	118	7,746	1,876	0.063	65.64	4.13	1.000	0.99990
6021	5	5.10	11	680	1,298	0.008	61.82	0.52	1.000	0.99999
6022	2	0.15	52	276	489	0.106	5.31	0.56	1.020	0.99999
6141	1	1.40	6	507	632	0.009	84.50	0.80	1.000	0.99998
6142	1	0.98	1	59	311	0.003	59.00	0.19	1.000	0.99999
	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUSTOMERS SERVED	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
Total:	168	241.66	7,361	499,165	165,472	0.044	67.81	3.02	1.049	0.99993

THE EMPIRE DISTRICT ELECTRIC COMPANY
CUSTOMER OUTAGE STATISTICS AND INDICES FOR MISSOURI
4/1/2018 to 4/30/2018
EXCLUDING MAJOR EVENT DAYS

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1082	2	2.42	16	1,293	1,340	0.012	80.81	0.96	1.000	0.99998
1101	1	0.87	1	52	164	0.006	52.00	0.32	1.000	0.99999
1102	1	0.73	27	1,208	470	0.057	44.74	2.57	1.000	0.99994
1103	1	0.82	21	1,043	977	0.021	49.67	1.07	1.000	0.99998
1142	1	0.60	1	36	214	0.005	36.00	0.17	1.000	0.99999
1211	2	3.70	2	222	1,480	0.001	111.00	0.15	1.000	0.99999
1242	2	2.93	25	2,258	679	0.037	90.32	3.33	1.000	0.99992
1243	1	0.95	1	57	1,208	0.001	57.00	0.05	1.000	0.99999
1263	1	1.12	1	67	1,141	0.001	67.00	0.06	1.000	0.99999
1271	1	1.37	1	82	965	0.001	82.00	0.08	1.000	0.99999
1282	1	0.70	26	1,117	694	0.037	42.96	1.61	1.000	0.99996
1284	2	2.20	5	368	949	0.005	73.60	0.39	1.000	0.99999
1452	1	1.43	1	86	449	0.002	86.00	0.19	1.000	0.99999
1453	2	1.48	2	89	1,798	0.001	44.50	0.05	1.000	0.99999
1521	1	1.33	7	560	365	0.019	80.00	1.53	1.000	0.99996
1523	1	1.40	1	84	733	0.001	84.00	0.11	1.000	0.99999
1841	5	7.80	8	581	652	0.012	72.63	0.89	1.000	0.99998

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1843	1	0.50	18	548	1,079	0.017	30.44	0.51	1.000	0.99999
2211	6	2.05	136	2,639	723	0.188	19.40	3.65	1.528	0.99992
2212	4	4.26	773	8,888	1,294	0.597	11.50	6.87	1.024	0.99984
2951	1	1.03	5	313	1,401	0.004	62.60	0.22	1.000	0.99999
2961	4	7.53	22	2,514	648	0.034	114.27	3.88	1.000	0.99991
3041	1	0.83	1	50	81	0.012	50.00	0.62	1.000	0.99999
3122	3	10.77	14	4,468	851	0.016	319.14	5.25	1.000	0.99988
3123	2	9.52	32	8,880	1,055	0.030	277.50	8.42	1.000	0.99981
3221	3	3.66	65	4,971	1,245	0.052	76.48	3.99	1.102	0.99991
3222	1	1.30	45	3,516	773	0.058	78.13	4.55	1.000	0.99989
3232	1	0.65	9	351	427	0.021	39.00	0.82	1.000	0.99998
3304	1	2.73	50	8,232	1,075	0.047	164.64	7.66	1.000	0.99982
3311	1	2.22	1	133	536	0.002	133.00	0.25	1.000	0.99999
3313	1	1.33	1	80	1,344	0.001	80.00	0.06	1.000	0.99999
3314	1	0.72	1	43	222	0.005	43.00	0.19	1.000	0.99999
3422	1	0.87	975	50,829	975	1.000	52.13	52.13	1.000	0.99879
3471	1	1.45	1	87	170	0.006	87.00	0.51	1.000	0.99999
3472	3	5.17	136	11,129	1,582	0.086	81.83	7.03	1.079	0.99984
3551	1	1.10	1	66	1,031	0.001	66.00	0.06	1.000	0.99999
3553	1	0.70	1	42	1,040	0.001	42.00	0.04	1.000	0.99999
3591	1	0.07	1,223	6,013	1,223	1.000	4.92	4.92	1.000	0.99989
3592	2	3.47	19	2,323	1,708	0.011	122.26	1.36	1.000	0.99997

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
3621	2	3.65	2	219	1,555	0.001	109.50	0.14	1.000	0.99999
3662	1	0.90	1	54	783	0.001	54.00	0.07	1.000	0.99999
3663	1	1.33	18	1,443	737	0.024	80.17	1.96	1.000	0.99995
3664	1	0.90	1	54	549	0.002	54.00	0.10	1.000	0.99999
3692	1	3.58	98	21,050	410	0.239	214.80	51.34	1.000	0.99881
3871	1	2.17	41	5,355	1,354	0.030	130.61	3.95	1.000	0.99991
3878	2	4.12	2	247	796	0.003	123.50	0.31	1.000	0.99999
3893	4	4.18	62	3,724	1,115	0.056	60.06	3.34	1.000	0.99992
3901	1	0.92	1	55	878	0.001	55.00	0.06	1.000	0.99999
3903	1	1.22	1	73	299	0.003	73.00	0.24	1.000	0.99999
3914	2	5.10	66	6,974	375	0.176	105.67	18.60	1.000	0.99957
3951	2	2.90	69	6,643	930	0.074	96.28	7.14	1.062	0.99983
3952	1	0.78	1	47	1,273	0.001	47.00	0.04	1.000	0.99999
3971	1	0.90	1	54	665	0.002	54.00	0.08	1.000	0.99999
3981	5	8.64	9	1,105	1,503	0.006	122.78	0.74	1.000	0.99998
3982	2	1.35	138	5,332	1,771	0.078	38.64	3.01	1.000	0.99993
3991	1	1.85	21	2,344	730	0.029	111.62	3.21	1.000	0.99993
4092	1	1.63	1	98	433	0.002	98.00	0.23	1.000	0.99999
4133	1	0.97	26	1,521	642	0.040	58.50	2.37	1.000	0.99995
4137	1	1.37	5	413	797	0.006	82.60	0.52	1.000	0.99999
4142	1	1.17	37	2,617	598	0.062	70.73	4.38	1.000	0.99990
4154	1	2.48	1	149	1,218	0.001	149.00	0.12	1.000	0.99999

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
4155	2	2.40	1,437	102,064	2,151	0.668	71.03	47.45	1.013	0.99890
4171	2	1.50	2	90	678	0.003	45.00	0.13	1.000	0.99999
4172	2	3.46	2	208	1,725	0.001	104.00	0.12	1.000	0.99999
4173	1	3.22	23	4,444	635	0.036	193.22	7.00	1.000	0.99984
4181	3	9.97	56	13,385	622	0.090	239.02	21.52	1.018	0.99950
4182	1	3.50	26	5,468	896	0.029	210.31	6.10	1.000	0.99986
4211	1	0.98	36	2,154	710	0.051	59.83	3.03	1.000	0.99993
4212	1	1.23	11	818	820	0.013	74.36	1.00	1.000	0.99998
4222	2	2.71	2	163	1,045	0.002	81.50	0.16	1.000	0.99999
4321	1	1.10	68	4,516	4	17.000	66.41	1129.00	1.000	0.97387
4342	1	0.95	12	692	1,763	0.007	57.67	0.39	1.000	0.99999
4343	1	1.05	25	1,596	1,028	0.024	63.84	1.55	1.000	0.99996
4361	2	1.30	105	4,592	1,764	0.060	43.73	2.60	1.000	0.99994
4362	1	0.52	1	31	827	0.001	31.00	0.04	1.000	0.99999
4363	1	0.92	4	221	1,699	0.002	55.25	0.13	1.000	0.99999
4371	1	1.23	1	74	1,544	0.001	74.00	0.05	1.000	0.99999
4373	2	1.84	2	110	776	0.003	55.00	0.14	1.000	0.99999
4381	1	1.48	1	89	435	0.002	89.00	0.20	1.000	0.99999
4431	10	10.92	41	3,588	1,387	0.030	87.51	2.59	1.000	0.99994
4432	2	2.60	2	156	463	0.004	78.00	0.34	1.000	0.99999
4601	3	7.30	14	2,716	417	0.034	194.00	6.51	1.077	0.99985
4602	1	1.27	1	76	947	0.001	76.00	0.08	1.000	0.99999

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
4712	6	9.06	976	149,923	58	16.828	153.61	2584.88	1.348	0.94016
5601	2	5.99	40	6,636	1,172	0.034	165.90	5.66	1.000	0.99987
5602	1	0.45	1	27	681	0.001	27.00	0.04	1.000	0.99999
5603	2	3.34	2	200	1,290	0.002	100.00	0.16	1.000	0.99999
5904	2	4.40	5	971	1,223	0.004	194.20	0.79	1.000	0.99998
5905	3	3.45	118	7,746	1,876	0.063	65.64	4.13	1.000	0.99990
6021	5	5.10	11	680	1,298	0.008	61.82	0.52	1.000	0.99999
6022	2	0.15	52	276	489	0.106	5.31	0.56	1.020	0.99999
6141	1	1.40	6	507	632	0.009	84.50	0.80	1.000	0.99998
6142	1	0.98	1	59	311	0.003	59.00	0.19	1.000	0.99999
	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUSTOMERS SERVED	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
Total:	168	241.66	7,361	499,165	165,472	0.044	67.81	3.02	1.049	0.99993

THE EMPIRE DISTRICT ELECTRIC COMPANY
CUSTOMER OUTAGE STATISTICS AND INDICES FOR MISSOURI
5/1/2018 to 5/31/2018
INCLUDING MAJOR EVENT DAYS

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1051	1	1.15	1	69	148	0.007	69.00	0.47	1.000	0.99999
1082	7	9.48	56	10,168	1,341	0.042	181.57	7.58	1.333	0.99983
1102	4	7.83	46	7,776	612	0.075	169.04	12.71	1.045	0.99972
1103	1	1.18	978	69,894	978	1.000	71.47	71.47	1.000	0.99840
1211	3	4.03	17	937	1,481	0.011	55.12	0.63	1.063	0.99999
1212	3	5.32	3	319	332	0.009	106.33	0.96	1.000	0.99998
1213	1	2.73	1	164	555	0.002	164.00	0.30	1.000	0.99999
1232	3	2.05	3	123	1,180	0.003	41.00	0.10	1.000	0.99999
1241	2	10.22	2	613	861	0.002	306.50	0.71	1.000	0.99998
1242	1	0.90	7	381	768	0.009	54.43	0.50	1.000	0.99999
1265	5	6.37	197	16,674	1,284	0.153	84.64	12.99	1.113	0.99971
1271	5	6.71	24	1,264	966	0.025	52.67	1.31	1.143	0.99997
1284	5	4.60	86	2,204	950	0.091	25.63	2.32	1.000	0.99995
1285	2	3.55	2	213	1,094	0.002	106.50	0.19	1.000	0.99999
1311	1	3.50	1	210	274	0.004	210.00	0.77	1.000	0.99998
1453	3	18.47	10	4,773	1,799	0.006	477.30	2.65	1.250	0.99994
1454	1	1.40	98	8,243	934	0.105	84.11	8.83	1.000	0.99980

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1841	1	1.85	19	2,109	585	0.032	111.00	3.61	1.000	0.99992
1843	4	10.96	232	58,481	1,079	0.215	252.07	54.20	1.423	0.99879
2051	2	1.98	2	119	165	0.012	59.50	0.72	1.000	0.99998
2092	1	1.50	14	1,272	920	0.015	90.86	1.38	1.000	0.99997
2171	1	0.60	47	1,697	565	0.083	36.11	3.00	1.000	0.99993
2212	2	5.20	17	2,171	1,294	0.013	127.71	1.68	1.000	0.99996
2511	3	5.17	631	44,744	620	1.018	70.91	72.17	1.019	0.99838
2621	7	13.89	1,173	121,131	1,172	1.001	103.27	103.35	1.369	0.99768
2622	1	0.82	7	347	114	0.061	49.57	3.04	1.000	0.99993
2951	5	6.52	36	3,231	1,400	0.026	89.75	2.31	1.241	0.99995
2952	1	2.28	16	2,109	158	0.101	131.81	13.35	1.000	0.99970
3121	1	1.07	12	770	1,132	0.011	64.17	0.68	1.000	0.99998
3123	2	2.17	28	1,809	1,058	0.026	64.61	1.71	1.000	0.99996
3181	2	2.48	23	1,741	728	0.032	75.70	2.39	1.000	0.99995
3221	4	4.68	919	94,739	1,246	0.738	103.09	76.03	1.003	0.99830
3222	4	7.98	10	850	773	0.013	85.00	1.10	1.429	0.99998
3231	1	2.10	9	1,141	204	0.044	126.78	5.59	1.000	0.99987
3232	1	3.08	1	185	428	0.002	185.00	0.43	1.000	0.99999
3304	1	5.00	94	28,290	1,075	0.087	300.96	26.32	1.000	0.99941
3311	2	3.39	2	203	536	0.004	101.50	0.38	1.000	0.99999
3314	1	1.20	9	648	222	0.041	72.00	2.92	1.000	0.99993
3315	2	6.18	32	8,117	1,580	0.020	253.66	5.14	1.000	0.99988

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
3421	1	1.38	1	83	294	0.003	83.00	0.28	1.000	0.99999
3422	1	1.82	1	109	976	0.001	109.00	0.11	1.000	0.99999
3472	4	7.78	1,694	340,859	1,433	1.182	201.22	237.86	1.071	0.99467
3551	2	3.62	38	3,816	1,032	0.037	100.42	3.70	1.027	0.99992
3552	1	1.72	1	103	576	0.002	103.00	0.18	1.000	0.99999
3553	2	2.90	2	174	956	0.002	87.00	0.18	1.000	0.99999
3591	1	0.45	30	837	1,222	0.025	27.90	0.68	1.000	0.99998
3592	5	6.60	250	9,311	1,728	0.145	37.24	5.39	1.073	0.99988
3594	1	1.17	11	779	704	0.016	70.82	1.11	1.000	0.99998
3621	2	2.81	23	1,282	1,554	0.015	55.74	0.82	1.045	0.99998
3663	2	3.97	62	9,310	742	0.084	150.16	12.55	1.016	0.99972
3664	3	6.43	551	23,165	551	1.000	42.04	42.04	1.004	0.99906
3691	1	2.60	66	10,327	1,162	0.057	156.47	8.89	1.000	0.99980
3694	2	3.64	13	1,391	1,333	0.010	107.00	1.04	1.857	0.99998
3701	3	6.90	15	4,529	493	0.030	301.93	9.19	1.154	0.99979
3751	4	3.51	43	2,486	886	0.049	57.81	2.81	1.000	0.99994
3878	2	3.15	25	1,246	796	0.031	49.84	1.57	1.042	0.99996
3891	7	7.18	9	583	458	0.020	64.78	1.27	1.000	0.99997
3892	1	66.80	12	48,104	506	0.024	4008.67	95.07	1.000	0.99787
3893	9	17.50	58	11,134	1,119	0.052	191.97	9.95	1.115	0.99978
3901	2	2.30	2	138	878	0.002	69.00	0.16	1.000	0.99999
3914	2	1.67	32	1,403	375	0.085	43.84	3.74	1.032	0.99992

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
3951	6	6.13	905	12,861	930	0.973	14.21	13.83	1.067	0.99969
3952	4	7.80	91	18,203	1,272	0.072	200.03	14.31	1.011	0.99968
3953	2	4.42	11	1,589	524	0.021	144.45	3.03	1.000	0.99993
403	1	0.10	267	1,571	267	1.000	5.88	5.88	1.000	0.99987
4091	3	8.25	1,188	300,279	1,148	1.035	252.76	261.57	2.877	0.99414
4092	2	2.83	17	1,625	434	0.039	95.59	3.74	1.063	0.99992
4102	1	5.52	73	11,997	720	0.101	164.34	16.66	1.000	0.99963
4132	1	0.90	565	30,952	566	0.998	54.78	54.69	1.000	0.99877
4138	3	1.93	21	1,203	746	0.028	57.29	1.61	1.050	0.99996
4141	4	3.74	247	13,033	82	3.012	52.77	158.94	3.012	0.99644
4142	1	1.32	1	79	598	0.002	79.00	0.13	1.000	0.99999
4153	2	5.95	7	1,199	1,297	0.005	171.29	0.92	1.167	0.99998
4155	3	9.13	20	6,620	2,152	0.009	331.00	3.08	1.111	0.99993
4172	7	5.97	1,809	26,420	1,726	1.048	14.60	15.31	1.054	0.99966
4181	1	0.95	1	57	624	0.002	57.00	0.09	1.000	0.99999
4211	2	3.77	2	226	799	0.003	113.00	0.28	1.000	0.99999
4212	2	3.50	853	114,346	820	1.040	134.05	139.45	1.038	0.99688
4222	11	18.49	62	6,820	1,045	0.059	110.00	6.53	1.442	0.99985
4223	2	1.55	2	93	920	0.002	46.50	0.10	1.000	0.99999
4224	2	2.06	12	903	758	0.016	75.25	1.19	1.091	0.99997
4313	2	2.91	2	175	536	0.004	87.50	0.33	1.000	0.99999
4341	1	1.07	48	3,098	1,819	0.026	64.54	1.70	1.000	0.99996

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
4343	3	2.45	8	537	1,031	0.008	67.13	0.52	1.333	0.99999
4361	2	2.85	9	955	1,683	0.005	106.11	0.57	1.125	0.99999
4363	4	5.63	46	5,544	1,560	0.029	120.52	3.55	1.022	0.99992
4371	4	5.60	4	336	1,540	0.003	84.00	0.22	1.000	0.99999
4372	2	3.35	2	201	442	0.005	100.50	0.45	1.000	0.99999
4386	1	0.10	1	6	1,662	0.001	6.00	0.00	1.000	0.99999
4431	9	15.97	56	8,423	1,388	0.040	150.41	6.07	1.098	0.99986
4432	4	5.36	5	390	462	0.011	78.00	0.84	1.000	0.99998
4511	3	5.90	41	4,945	1,134	0.036	120.61	4.36	1.577	0.99990
4692	2	1.56	56	2,684	473	0.118	47.93	5.67	1.018	0.99987
4712	7	12.51	32	5,126	58	0.552	160.19	88.38	1.231	0.99802
5601	2	3.85	17	1,845	1,238	0.014	108.53	1.49	1.063	0.99997
5602	3	6.04	8	497	681	0.012	62.13	0.73	1.333	0.99998
5603	8	9.13	186	11,673	1,290	0.144	62.76	9.05	1.420	0.99980
5902	3	4.08	69	5,127	944	0.073	74.30	5.43	1.302	0.99988
6021	4	5.75	7	573	1,307	0.005	81.86	0.44	1.167	0.99999
6141	1	0.32	1	19	632	0.002	19.00	0.03	1.000	0.99999
6144	1	0.53	1	32	322	0.003	32.00	0.10	1.000	0.99999
	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUSTOMERS SERVED	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
Total:	281	524.76	14,557	1,573,360	165,618	0.088	108.08	9.50	1.146	0.99979

THE EMPIRE DISTRICT ELECTRIC COMPANY
CUSTOMER OUTAGE STATISTICS AND INDICES FOR MISSOURI
5/1/2018 to 5/31/2018
EXCLUDING MAJOR EVENT DAYS

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1051	1	1.15	1	69	148	0.007	69.00	0.47	1.000	0.99999
1082	7	9.48	56	10,168	1,341	0.042	181.57	7.58	1.333	0.99983
1102	4	7.83	46	7,776	612	0.075	169.04	12.71	1.045	0.99972
1103	1	1.18	978	69,894	978	1.000	71.47	71.47	1.000	0.99840
1211	3	4.03	17	937	1,481	0.011	55.12	0.63	1.063	0.99999
1212	3	5.32	3	319	332	0.009	106.33	0.96	1.000	0.99998
1213	1	2.73	1	164	555	0.002	164.00	0.30	1.000	0.99999
1232	3	2.05	3	123	1,180	0.003	41.00	0.10	1.000	0.99999
1241	2	10.22	2	613	861	0.002	306.50	0.71	1.000	0.99998
1242	1	0.90	7	381	768	0.009	54.43	0.50	1.000	0.99999
1265	5	6.37	197	16,674	1,284	0.153	84.64	12.99	1.113	0.99971
1271	5	6.71	24	1,264	966	0.025	52.67	1.31	1.143	0.99997
1284	5	4.60	86	2,204	950	0.091	25.63	2.32	1.000	0.99995
1285	2	3.55	2	213	1,094	0.002	106.50	0.19	1.000	0.99999
1311	1	3.50	1	210	274	0.004	210.00	0.77	1.000	0.99998
1453	3	18.47	10	4,773	1,799	0.006	477.30	2.65	1.250	0.99994
1454	1	1.40	98	8,243	934	0.105	84.11	8.83	1.000	0.99980

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1841	1	1.85	19	2,109	585	0.032	111.00	3.61	1.000	0.99992
1843	4	10.96	232	58,481	1,079	0.215	252.07	54.20	1.423	0.99879
2051	2	1.98	2	119	165	0.012	59.50	0.72	1.000	0.99998
2092	1	1.50	14	1,272	920	0.015	90.86	1.38	1.000	0.99997
2171	1	0.60	47	1,697	565	0.083	36.11	3.00	1.000	0.99993
2212	2	5.20	17	2,171	1,294	0.013	127.71	1.68	1.000	0.99996
2511	3	5.17	631	44,744	620	1.018	70.91	72.17	1.019	0.99838
2621	7	13.89	1,173	121,131	1,172	1.001	103.27	103.35	1.369	0.99768
2622	1	0.82	7	347	114	0.061	49.57	3.04	1.000	0.99993
2951	5	6.52	36	3,231	1,400	0.026	89.75	2.31	1.241	0.99995
2952	1	2.28	16	2,109	158	0.101	131.81	13.35	1.000	0.99970
3121	1	1.07	12	770	1,132	0.011	64.17	0.68	1.000	0.99998
3123	2	2.17	28	1,809	1,058	0.026	64.61	1.71	1.000	0.99996
3181	2	2.48	23	1,741	728	0.032	75.70	2.39	1.000	0.99995
3221	4	4.68	919	94,739	1,246	0.738	103.09	76.03	1.003	0.99830
3222	4	7.98	10	850	773	0.013	85.00	1.10	1.429	0.99998
3231	1	2.10	9	1,141	204	0.044	126.78	5.59	1.000	0.99987
3232	1	3.08	1	185	428	0.002	185.00	0.43	1.000	0.99999
3304	1	5.00	94	28,290	1,075	0.087	300.96	26.32	1.000	0.99941
3311	2	3.39	2	203	536	0.004	101.50	0.38	1.000	0.99999
3314	1	1.20	9	648	222	0.041	72.00	2.92	1.000	0.99993
3315	2	6.18	32	8,117	1,580	0.020	253.66	5.14	1.000	0.99988

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
3421	1	1.38	1	83	294	0.003	83.00	0.28	1.000	0.99999
3422	1	1.82	1	109	976	0.001	109.00	0.11	1.000	0.99999
3472	4	7.78	1,694	340,859	1,433	1.182	201.22	237.86	1.071	0.99467
3551	2	3.62	38	3,816	1,032	0.037	100.42	3.70	1.027	0.99992
3552	1	1.72	1	103	576	0.002	103.00	0.18	1.000	0.99999
3553	2	2.90	2	174	956	0.002	87.00	0.18	1.000	0.99999
3591	1	0.45	30	837	1,222	0.025	27.90	0.68	1.000	0.99998
3592	5	6.60	250	9,311	1,728	0.145	37.24	5.39	1.073	0.99988
3594	1	1.17	11	779	704	0.016	70.82	1.11	1.000	0.99998
3621	2	2.81	23	1,282	1,554	0.015	55.74	0.82	1.045	0.99998
3663	2	3.97	62	9,310	742	0.084	150.16	12.55	1.016	0.99972
3664	3	6.43	551	23,165	551	1.000	42.04	42.04	1.004	0.99906
3691	1	2.60	66	10,327	1,162	0.057	156.47	8.89	1.000	0.99980
3694	2	3.64	13	1,391	1,333	0.010	107.00	1.04	1.857	0.99998
3701	3	6.90	15	4,529	493	0.030	301.93	9.19	1.154	0.99979
3751	4	3.51	43	2,486	886	0.049	57.81	2.81	1.000	0.99994
3878	2	3.15	25	1,246	796	0.031	49.84	1.57	1.042	0.99996
3891	7	7.18	9	583	458	0.020	64.78	1.27	1.000	0.99997
3892	1	66.80	12	48,104	506	0.024	4008.67	95.07	1.000	0.99787
3893	9	17.50	58	11,134	1,119	0.052	191.97	9.95	1.115	0.99978
3901	2	2.30	2	138	878	0.002	69.00	0.16	1.000	0.99999
3914	2	1.67	32	1,403	375	0.085	43.84	3.74	1.032	0.99992

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
3951	6	6.13	905	12,861	930	0.973	14.21	13.83	1.067	0.99969
3952	4	7.80	91	18,203	1,272	0.072	200.03	14.31	1.011	0.99968
3953	2	4.42	11	1,589	524	0.021	144.45	3.03	1.000	0.99993
403	1	0.10	267	1,571	267	1.000	5.88	5.88	1.000	0.99987
4091	3	8.25	1,188	300,279	1,148	1.035	252.76	261.57	2.877	0.99414
4092	2	2.83	17	1,625	434	0.039	95.59	3.74	1.063	0.99992
4102	1	5.52	73	11,997	720	0.101	164.34	16.66	1.000	0.99963
4132	1	0.90	565	30,952	566	0.998	54.78	54.69	1.000	0.99877
4138	3	1.93	21	1,203	746	0.028	57.29	1.61	1.050	0.99996
4141	4	3.74	247	13,033	82	3.012	52.77	158.94	3.012	0.99644
4142	1	1.32	1	79	598	0.002	79.00	0.13	1.000	0.99999
4153	2	5.95	7	1,199	1,297	0.005	171.29	0.92	1.167	0.99998
4155	3	9.13	20	6,620	2,152	0.009	331.00	3.08	1.111	0.99993
4172	7	5.97	1,809	26,420	1,726	1.048	14.60	15.31	1.054	0.99966
4181	1	0.95	1	57	624	0.002	57.00	0.09	1.000	0.99999
4211	2	3.77	2	226	799	0.003	113.00	0.28	1.000	0.99999
4212	2	3.50	853	114,346	820	1.040	134.05	139.45	1.038	0.99688
4222	11	18.49	62	6,820	1,045	0.059	110.00	6.53	1.442	0.99985
4223	2	1.55	2	93	920	0.002	46.50	0.10	1.000	0.99999
4224	2	2.06	12	903	758	0.016	75.25	1.19	1.091	0.99997
4313	2	2.91	2	175	536	0.004	87.50	0.33	1.000	0.99999
4341	1	1.07	48	3,098	1,819	0.026	64.54	1.70	1.000	0.99996

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
4343	3	2.45	8	537	1,031	0.008	67.13	0.52	1.333	0.99999
4361	2	2.85	9	955	1,683	0.005	106.11	0.57	1.125	0.99999
4363	4	5.63	46	5,544	1,560	0.029	120.52	3.55	1.022	0.99992
4371	4	5.60	4	336	1,540	0.003	84.00	0.22	1.000	0.99999
4372	2	3.35	2	201	442	0.005	100.50	0.45	1.000	0.99999
4386	1	0.10	1	6	1,662	0.001	6.00	0.00	1.000	0.99999
4431	9	15.97	56	8,423	1,388	0.040	150.41	6.07	1.098	0.99986
4432	4	5.36	5	390	462	0.011	78.00	0.84	1.000	0.99998
4511	3	5.90	41	4,945	1,134	0.036	120.61	4.36	1.577	0.99990
4692	2	1.56	56	2,684	473	0.118	47.93	5.67	1.018	0.99987
4712	7	12.51	32	5,126	58	0.552	160.19	88.38	1.231	0.99802
5601	2	3.85	17	1,845	1,238	0.014	108.53	1.49	1.063	0.99997
5602	3	6.04	8	497	681	0.012	62.13	0.73	1.333	0.99998
5603	8	9.13	186	11,673	1,290	0.144	62.76	9.05	1.420	0.99980
5902	3	4.08	69	5,127	944	0.073	74.30	5.43	1.302	0.99988
6021	4	5.75	7	573	1,307	0.005	81.86	0.44	1.167	0.99999
6141	1	0.32	1	19	632	0.002	19.00	0.03	1.000	0.99999
6144	1	0.53	1	32	322	0.003	32.00	0.10	1.000	0.99999
	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUSTOMERS SERVED	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
Total:	281	524.76	14,557	1,573,360	165,618	0.088	108.08	9.50	1.146	0.99979

THE EMPIRE DISTRICT ELECTRIC COMPANY
CUSTOMER OUTAGE STATISTICS AND INDICES FOR MISSOURI
6/1/2018 to 6/30/2018
INCLUDING MAJOR EVENT DAYS

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1050	11	13.08	401	28,589	1,613	0.249	71.29	17.72	1.008	0.99959
1051	2	2.30	3	245	151	0.020	81.67	1.62	1.000	0.99996
1082	5	9.51	37	4,634	1,342	0.028	125.24	3.45	1.028	0.99992
1092	6	6.61	6	397	976	0.006	66.17	0.41	1.000	0.99999
1093	1	4.37	54	14,156	238	0.227	262.15	59.48	1.000	0.99862
1102	3	5.88	793	51,796	753	1.053	65.32	68.79	1.053	0.99841
1103	2	4.15	109	6,250	978	0.111	57.34	6.39	1.048	0.99985
1211	4	6.85	98	13,303	1,482	0.066	135.74	8.98	1.032	0.99979
1212	3	4.59	3	275	332	0.009	91.67	0.83	1.500	0.99998
1213	1	1.37	1	82	555	0.002	82.00	0.15	1.000	0.99999
1230	5	8.69	100	8,806	1,180	0.085	88.06	7.46	1.010	0.99983
1232	2	16.95	109	8,017	1,176	0.093	73.55	6.82	1.009	0.99984
1241	1	1.68	1	101	868	0.001	101.00	0.12	1.000	0.99999
1242	2	2.17	2	130	858	0.002	65.00	0.15	1.000	0.99999
1243	3	3.35	19	785	1,213	0.016	41.32	0.65	1.118	0.99999
1263	1	1.17	7	494	1,146	0.006	70.57	0.43	1.000	0.99999
1265	1	2.67	22	3,530	1,286	0.017	160.45	2.74	1.000	0.99994

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1271	4	4.18	5	410	966	0.005	82.00	0.42	1.000	0.99999
1273	8	16.04	132	12,407	865	0.153	93.99	14.34	1.000	0.99967
1282	2	3.42	64	5,838	692	0.092	91.22	8.44	1.000	0.99980
1283	1	0.75	1	45	343	0.003	45.00	0.13	1.000	0.99999
1284	3	3.29	40	2,679	950	0.042	66.98	2.82	1.026	0.99993
1285	1	1.15	1	69	1,096	0.001	69.00	0.06	1.000	0.99999
1311	1	1.23	1	74	275	0.004	74.00	0.27	1.000	0.99999
1312	2	2.85	11	929	940	0.012	84.45	0.99	1.000	0.99998
1452	1	1.28	21	1,617	451	0.047	77.00	3.59	1.000	0.99992
1453	2	7.94	10	2,357	1,800	0.006	235.70	1.31	1.000	0.99997
1454	4	2.87	216	12,056	932	0.232	55.81	12.94	1.009	0.99970
1521	4	3.38	35	1,890	367	0.095	54.00	5.15	1.094	0.99988
1523	3	3.49	10	669	734	0.014	66.90	0.91	1.111	0.99998
1841	2	4.55	3	462	518	0.006	154.00	0.89	1.000	0.99998
1843	3	3.85	76	6,417	1,079	0.070	84.43	5.95	1.013	0.99986
2051	1	0.68	1	41	165	0.006	41.00	0.25	1.000	0.99999
2091	2	3.77	20	1,772	883	0.023	88.60	2.01	1.053	0.99995
2092	3	4.37	32	2,187	922	0.035	68.34	2.37	1.000	0.99995
2171	1	0.92	1	55	566	0.002	55.00	0.10	1.000	0.99999
2212	5	5.39	56	4,301	1,295	0.043	76.80	3.32	1.018	0.99992
2511	4	7.63	26	3,215	620	0.042	123.65	5.19	1.000	0.99988
2621	11	25.69	64	9,387	1,173	0.055	146.67	8.00	1.000	0.99981

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
2622	1	1.18	1	71	114	0.009	71.00	0.62	1.000	0.99999
2921	1	1.23	15	1,118	375	0.040	74.53	2.98	1.000	0.99993
2951	3	3.26	6	456	1,400	0.004	76.00	0.33	1.000	0.99999
2961	3	13.04	105	46,422	646	0.163	442.11	71.86	1.000	0.99834
3082	1	2.58	1	155	322	0.003	155.00	0.48	1.000	0.99999
3121	2	3.11	172	16,179	1,132	0.152	94.06	14.29	1.024	0.99967
3122	4	10.38	13	1,927	852	0.015	148.23	2.26	1.083	0.99995
3123	2	4.48	2	269	1,061	0.002	134.50	0.25	1.000	0.99999
3181	4	3.52	25	1,702	730	0.034	68.08	2.33	1.000	0.99995
3221	1	0.80	1	48	1,247	0.001	48.00	0.04	1.000	0.99999
3222	3	5.04	62	4,167	773	0.080	67.21	5.39	1.000	0.99988
3231	2	2.98	2	179	205	0.010	89.50	0.87	1.000	0.99998
3301	1	0.63	36	1,375	742	0.049	38.19	1.85	1.000	0.99996
3302	1	0.97	4	234	901	0.004	58.50	0.26	1.000	0.99999
3303	1	1.38	33	2,768	972	0.034	83.88	2.85	1.000	0.99993
3304	2	3.72	5	459	1,075	0.005	91.80	0.43	1.250	0.99999
3312	1	1.38	402	33,647	402	1.000	83.70	83.70	1.000	0.99806
3313	1	1.10	1	66	1,343	0.001	66.00	0.05	1.000	0.99999
3314	1	1.22	219	16,085	222	0.986	73.45	72.45	1.000	0.99832
3315	4	4.72	17	1,679	1,581	0.011	98.76	1.06	1.000	0.99998
3421	1	1.28	295	22,946	295	1.000	77.78	77.78	1.000	0.99820
3422	3	4.39	1,018	94,215	976	1.043	92.55	96.53	1.043	0.99777

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
3423	2	3.35	390	45,940	388	1.005	117.79	118.40	1.005	0.99726
3472	7	11.42	10	1,287	1,284	0.008	128.70	1.00	1.000	0.99998
3552	2	1.40	35	1,532	577	0.061	43.77	2.66	1.000	0.99994
3553	3	3.05	6	311	872	0.007	51.83	0.36	1.000	0.99999
3591	5	5.80	129	8,189	1,222	0.106	63.48	6.70	1.032	0.99984
3592	5	5.29	57	3,130	1,747	0.033	54.91	1.79	1.000	0.99996
3594	3	3.67	162	18,714	684	0.237	115.52	27.36	1.013	0.99937
3621	4	3.98	105	4,967	1,552	0.068	47.30	3.20	1.000	0.99993
3661	3	3.27	24	1,254	1,030	0.023	52.25	1.22	1.043	0.99997
3662	1	1.82	5	545	788	0.006	109.00	0.69	1.000	0.99998
3663	7	6.93	14	926	748	0.019	66.14	1.24	1.400	0.99997
3664	7	7.01	81	4,915	553	0.146	60.68	8.89	1.025	0.99979
3671	1	0.57	8	279	504	0.016	34.88	0.55	1.000	0.99999
3691	7	11.12	1,244	163,101	1,162	1.071	131.11	140.36	1.071	0.99675
3692	1	2.22	410	54,536	410	1.000	133.01	133.01	1.000	0.99692
3693	1	2.18	187	24,521	187	1.000	131.13	131.13	1.000	0.99696
3694	4	5.52	1,339	185,184	1,336	1.002	138.30	138.61	1.002	0.99679
3701	3	4.15	3	249	493	0.006	83.00	0.51	1.000	0.99999
3702	2	1.42	71	2,833	611	0.116	39.90	4.64	1.092	0.99989
3751	6	18.24	1,067	70,020	886	1.204	65.62	79.03	1.013	0.99817
3871	4	5.56	72	3,752	1,351	0.053	52.11	2.78	1.000	0.99994
3872	1	1.17	17	1,201	1,066	0.016	70.65	1.13	1.000	0.99997

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
3878	1	4.28	3	773	797	0.004	257.67	0.97	1.000	0.99998
3891	1	1.13	1	68	459	0.002	68.00	0.15	1.000	0.99999
3893	4	5.76	28	2,535	1,123	0.025	90.54	2.26	1.037	0.99995
3901	5	5.49	86	4,027	878	0.098	46.83	4.59	1.012	0.99989
3912	1	0.57	1	34	1,167	0.001	34.00	0.03	1.000	0.99999
3913	4	3.58	94	4,918	819	0.115	52.32	6.00	1.000	0.99986
3951	4	7.68	109	12,333	931	0.117	113.15	13.25	1.019	0.99969
3952	2	1.52	1,382	70,813	1,271	1.087	51.24	55.71	1.086	0.99871
3953	10	12.00	39	2,755	525	0.074	70.64	5.25	1.258	0.99988
3971	1	1.15	3	208	664	0.005	69.33	0.31	1.000	0.99999
3981	5	8.40	40	3,401	1,504	0.027	85.03	2.26	1.053	0.99995
3982	9	13.05	345	51,770	1,771	0.195	150.06	29.23	1.018	0.99932
3991	3	3.14	27	1,995	731	0.037	73.89	2.73	1.080	0.99994
402	1	2.67	1	160	108	0.009	160.00	1.48	1.000	0.99997
4031	3	6.62	70	7,456	708	0.099	106.51	10.53	1.014	0.99976
4091	3	3.96	1,177	160,013	1,149	1.024	135.95	139.26	1.024	0.99678
4092	2	4.22	437	69,715	436	1.002	159.53	159.90	1.002	0.99630
4101	4	10.70	58	10,374	963	0.060	178.86	10.77	1.036	0.99975
4102	1	5.85	73	25,678	537	0.136	351.75	47.82	1.000	0.99889
4133	1	1.33	1	80	642	0.002	80.00	0.12	1.000	0.99999
4134	1	2.32	1	139	836	0.001	139.00	0.17	1.000	0.99999
4137	1	2.10	1	126	797	0.001	126.00	0.16	1.000	0.99999

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
4138	2	2.41	12	1,011	746	0.016	84.25	1.36	1.000	0.99997
4141	3	9.55	84	1,628	82	1.024	19.38	19.85	1.024	0.99954
4142	2	1.31	636	7,987	599	1.062	12.56	13.33	1.062	0.99969
4151	1	1.18	1	71	172	0.006	71.00	0.41	1.000	0.99999
4155	5	6.81	54	3,568	2,152	0.025	66.07	1.66	1.059	0.99996
4171	1	0.62	5	185	682	0.007	37.00	0.27	1.000	0.99999
4172	4	16.50	5	1,403	1,727	0.003	280.60	0.81	1.000	0.99998
4181	2	7.90	2	474	625	0.003	237.00	0.76	1.000	0.99998
4211	3	5.40	18	1,625	888	0.020	90.28	1.83	1.059	0.99996
4212	6	7.19	36	4,061	820	0.044	112.81	4.95	1.125	0.99989
4222	4	6.27	43	4,501	1,045	0.041	104.67	4.31	1.103	0.99990
4223	1	4.57	8	2,195	924	0.009	274.38	2.38	1.000	0.99995
4224	9	30.16	43	9,889	758	0.057	229.98	13.05	1.000	0.99970
4303	1	1.07	13	834	1,000	0.013	64.15	0.83	1.000	0.99998
4311	2	3.26	32	1,615	860	0.037	50.47	1.88	1.000	0.99996
4324	1	1.90	1	114	1,262	0.001	114.00	0.09	1.000	0.99999
4331	1	1.33	1	80	314	0.003	80.00	0.25	1.000	0.99999
4341	3	1.97	30	1,259	1,821	0.016	41.97	0.69	1.034	0.99998
4342	1	0.82	3	148	1,760	0.002	49.33	0.08	1.000	0.99999
4343	4	5.43	27	2,412	1,034	0.026	89.33	2.33	1.350	0.99995
4361	7	6.88	38	2,608	1,602	0.024	68.63	1.63	1.056	0.99996
4362	4	3.24	84	4,542	827	0.102	54.07	5.49	1.024	0.99987

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
4363	4	3.90	30	2,327	1,420	0.021	77.57	1.64	1.000	0.99996
4371	3	2.97	28	2,634	1,537	0.018	94.07	1.71	1.077	0.99996
4372	3	2.54	9	332	445	0.020	36.89	0.75	1.000	0.99998
4373	1	0.57	1	34	783	0.001	34.00	0.04	1.000	0.99999
4386	1	4.37	7	1,838	1,663	0.004	262.57	1.11	1.000	0.99997
4431	7	7.49	147	2,214	1,390	0.106	15.06	1.59	1.043	0.99996
4511	3	2.85	4	232	1,135	0.004	58.00	0.20	1.000	0.99999
4601	1	0.60	28	1,011	420	0.067	36.11	2.41	1.000	0.99994
4602	2	4.40	103	14,213	950	0.108	137.99	14.96	1.000	0.99965
4692	2	3.65	88	10,891	475	0.185	123.76	22.93	1.492	0.99947
4712	3	3.94	3	236	58	0.052	78.67	4.07	1.500	0.99991
4714	1	1.20	1	72	328	0.003	72.00	0.22	1.000	0.99999
5601	5	16.07	70	9,884	1,304	0.054	141.20	7.58	1.014	0.99982
5602	2	2.16	4	322	681	0.006	80.50	0.47	1.000	0.99999
5902	1	0.63	24	915	945	0.025	38.13	0.97	1.000	0.99998
5904	2	2.25	51	3,206	1,230	0.041	62.86	2.61	1.000	0.99994
5905	1	3.30	7	1,392	1,875	0.004	198.86	0.74	1.000	0.99998
6022	1	1.30	64	5,015	491	0.130	78.36	10.21	1.000	0.99976
6024	2	1.70	9	495	395	0.023	55.00	1.25	1.000	0.99997
6141	4	8.44	44	3,830	633	0.070	87.05	6.05	1.023	0.99986
6144	1	1.98	14	1,669	323	0.043	119.21	5.17	1.000	0.99988

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUSTOMERS SERVED	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
Total:	427	695.24	16,351	1,598,363	165,764	0.099	97.75	9.64	1.025	0.99978

THE EMPIRE DISTRICT ELECTRIC COMPANY
CUSTOMER OUTAGE STATISTICS AND INDICES FOR MISSOURI
6/1/2018 to 6/30/2018
EXCLUDING MAJOR EVENT DAYS

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1050	11	13.08	401	28,589	1,613	0.249	71.29	17.72	1.008	0.99959
1051	2	2.30	3	245	151	0.020	81.67	1.62	1.000	0.99996
1082	5	9.51	37	4,634	1,342	0.028	125.24	3.45	1.028	0.99992
1092	6	6.61	6	397	976	0.006	66.17	0.41	1.000	0.99999
1093	1	4.37	54	14,156	238	0.227	262.15	59.48	1.000	0.99862
1102	3	5.88	793	51,796	753	1.053	65.32	68.79	1.053	0.99841
1103	2	4.15	109	6,250	978	0.111	57.34	6.39	1.048	0.99985
1211	4	6.85	98	13,303	1,482	0.066	135.74	8.98	1.032	0.99979
1212	3	4.59	3	275	332	0.009	91.67	0.83	1.500	0.99998
1213	1	1.37	1	82	555	0.002	82.00	0.15	1.000	0.99999
1230	5	8.69	100	8,806	1,180	0.085	88.06	7.46	1.010	0.99983
1232	2	16.95	109	8,017	1,176	0.093	73.55	6.82	1.009	0.99984
1241	1	1.68	1	101	868	0.001	101.00	0.12	1.000	0.99999
1242	2	2.17	2	130	858	0.002	65.00	0.15	1.000	0.99999
1243	3	3.35	19	785	1,213	0.016	41.32	0.65	1.118	0.99999
1263	1	1.17	7	494	1,146	0.006	70.57	0.43	1.000	0.99999
1265	1	2.67	22	3,530	1,286	0.017	160.45	2.74	1.000	0.99994

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1271	4	4.18	5	410	966	0.005	82.00	0.42	1.000	0.99999
1273	8	16.04	132	12,407	865	0.153	93.99	14.34	1.000	0.99967
1282	2	3.42	64	5,838	692	0.092	91.22	8.44	1.000	0.99980
1283	1	0.75	1	45	343	0.003	45.00	0.13	1.000	0.99999
1284	3	3.29	40	2,679	950	0.042	66.98	2.82	1.026	0.99993
1285	1	1.15	1	69	1,096	0.001	69.00	0.06	1.000	0.99999
1311	1	1.23	1	74	275	0.004	74.00	0.27	1.000	0.99999
1312	2	2.85	11	929	940	0.012	84.45	0.99	1.000	0.99998
1452	1	1.28	21	1,617	451	0.047	77.00	3.59	1.000	0.99992
1453	2	7.94	10	2,357	1,800	0.006	235.70	1.31	1.000	0.99997
1454	4	2.87	216	12,056	932	0.232	55.81	12.94	1.009	0.99970
1521	4	3.38	35	1,890	367	0.095	54.00	5.15	1.094	0.99988
1523	3	3.49	10	669	734	0.014	66.90	0.91	1.111	0.99998
1841	2	4.55	3	462	518	0.006	154.00	0.89	1.000	0.99998
1843	3	3.85	76	6,417	1,079	0.070	84.43	5.95	1.013	0.99986
2051	1	0.68	1	41	165	0.006	41.00	0.25	1.000	0.99999
2091	2	3.77	20	1,772	883	0.023	88.60	2.01	1.053	0.99995
2092	3	4.37	32	2,187	922	0.035	68.34	2.37	1.000	0.99995
2171	1	0.92	1	55	566	0.002	55.00	0.10	1.000	0.99999
2212	5	5.39	56	4,301	1,295	0.043	76.80	3.32	1.018	0.99992
2511	4	7.63	26	3,215	620	0.042	123.65	5.19	1.000	0.99988
2621	11	25.69	64	9,387	1,173	0.055	146.67	8.00	1.000	0.99981

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
2622	1	1.18	1	71	114	0.009	71.00	0.62	1.000	0.99999
2921	1	1.23	15	1,118	375	0.040	74.53	2.98	1.000	0.99993
2951	3	3.26	6	456	1,400	0.004	76.00	0.33	1.000	0.99999
2961	3	13.04	105	46,422	646	0.163	442.11	71.86	1.000	0.99834
3082	1	2.58	1	155	322	0.003	155.00	0.48	1.000	0.99999
3121	2	3.11	172	16,179	1,132	0.152	94.06	14.29	1.024	0.99967
3122	4	10.38	13	1,927	852	0.015	148.23	2.26	1.083	0.99995
3123	2	4.48	2	269	1,061	0.002	134.50	0.25	1.000	0.99999
3181	4	3.52	25	1,702	730	0.034	68.08	2.33	1.000	0.99995
3221	1	0.80	1	48	1,247	0.001	48.00	0.04	1.000	0.99999
3222	3	5.04	62	4,167	773	0.080	67.21	5.39	1.000	0.99988
3231	2	2.98	2	179	205	0.010	89.50	0.87	1.000	0.99998
3301	1	0.63	36	1,375	742	0.049	38.19	1.85	1.000	0.99996
3302	1	0.97	4	234	901	0.004	58.50	0.26	1.000	0.99999
3303	1	1.38	33	2,768	972	0.034	83.88	2.85	1.000	0.99993
3304	2	3.72	5	459	1,075	0.005	91.80	0.43	1.250	0.99999
3312	1	1.38	402	33,647	402	1.000	83.70	83.70	1.000	0.99806
3313	1	1.10	1	66	1,343	0.001	66.00	0.05	1.000	0.99999
3314	1	1.22	219	16,085	222	0.986	73.45	72.45	1.000	0.99832
3315	4	4.72	17	1,679	1,581	0.011	98.76	1.06	1.000	0.99998
3421	1	1.28	295	22,946	295	1.000	77.78	77.78	1.000	0.99820
3422	3	4.39	1,018	94,215	976	1.043	92.55	96.53	1.043	0.99777

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
3423	2	3.35	390	45,940	388	1.005	117.79	118.40	1.005	0.99726
3472	7	11.42	10	1,287	1,284	0.008	128.70	1.00	1.000	0.99998
3552	2	1.40	35	1,532	577	0.061	43.77	2.66	1.000	0.99994
3553	3	3.05	6	311	872	0.007	51.83	0.36	1.000	0.99999
3591	5	5.80	129	8,189	1,222	0.106	63.48	6.70	1.032	0.99984
3592	5	5.29	57	3,130	1,747	0.033	54.91	1.79	1.000	0.99996
3594	3	3.67	162	18,714	684	0.237	115.52	27.36	1.013	0.99937
3621	4	3.98	105	4,967	1,552	0.068	47.30	3.20	1.000	0.99993
3661	3	3.27	24	1,254	1,030	0.023	52.25	1.22	1.043	0.99997
3662	1	1.82	5	545	788	0.006	109.00	0.69	1.000	0.99998
3663	7	6.93	14	926	748	0.019	66.14	1.24	1.400	0.99997
3664	7	7.01	81	4,915	553	0.146	60.68	8.89	1.025	0.99979
3671	1	0.57	8	279	504	0.016	34.88	0.55	1.000	0.99999
3691	7	11.12	1,244	163,101	1,162	1.071	131.11	140.36	1.071	0.99675
3692	1	2.22	410	54,536	410	1.000	133.01	133.01	1.000	0.99692
3693	1	2.18	187	24,521	187	1.000	131.13	131.13	1.000	0.99696
3694	4	5.52	1,339	185,184	1,336	1.002	138.30	138.61	1.002	0.99679
3701	3	4.15	3	249	493	0.006	83.00	0.51	1.000	0.99999
3702	2	1.42	71	2,833	611	0.116	39.90	4.64	1.092	0.99989
3751	6	18.24	1,067	70,020	886	1.204	65.62	79.03	1.013	0.99817
3871	4	5.56	72	3,752	1,351	0.053	52.11	2.78	1.000	0.99994
3872	1	1.17	17	1,201	1,066	0.016	70.65	1.13	1.000	0.99997

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
3878	1	4.28	3	773	797	0.004	257.67	0.97	1.000	0.99998
3891	1	1.13	1	68	459	0.002	68.00	0.15	1.000	0.99999
3893	4	5.76	28	2,535	1,123	0.025	90.54	2.26	1.037	0.99995
3901	5	5.49	86	4,027	878	0.098	46.83	4.59	1.012	0.99989
3912	1	0.57	1	34	1,167	0.001	34.00	0.03	1.000	0.99999
3913	4	3.58	94	4,918	819	0.115	52.32	6.00	1.000	0.99986
3951	4	7.68	109	12,333	931	0.117	113.15	13.25	1.019	0.99969
3952	2	1.52	1,382	70,813	1,271	1.087	51.24	55.71	1.086	0.99871
3953	10	12.00	39	2,755	525	0.074	70.64	5.25	1.258	0.99988
3971	1	1.15	3	208	664	0.005	69.33	0.31	1.000	0.99999
3981	5	8.40	40	3,401	1,504	0.027	85.03	2.26	1.053	0.99995
3982	9	13.05	345	51,770	1,771	0.195	150.06	29.23	1.018	0.99932
3991	3	3.14	27	1,995	731	0.037	73.89	2.73	1.080	0.99994
402	1	2.67	1	160	108	0.009	160.00	1.48	1.000	0.99997
4031	3	6.62	70	7,456	708	0.099	106.51	10.53	1.014	0.99976
4091	3	3.96	1,177	160,013	1,149	1.024	135.95	139.26	1.024	0.99678
4092	2	4.22	437	69,715	436	1.002	159.53	159.90	1.002	0.99630
4101	4	10.70	58	10,374	963	0.060	178.86	10.77	1.036	0.99975
4102	1	5.85	73	25,678	537	0.136	351.75	47.82	1.000	0.99889
4133	1	1.33	1	80	642	0.002	80.00	0.12	1.000	0.99999
4134	1	2.32	1	139	836	0.001	139.00	0.17	1.000	0.99999
4137	1	2.10	1	126	797	0.001	126.00	0.16	1.000	0.99999

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
4138	2	2.41	12	1,011	746	0.016	84.25	1.36	1.000	0.99997
4141	3	9.55	84	1,628	82	1.024	19.38	19.85	1.024	0.99954
4142	2	1.31	636	7,987	599	1.062	12.56	13.33	1.062	0.99969
4151	1	1.18	1	71	172	0.006	71.00	0.41	1.000	0.99999
4155	5	6.81	54	3,568	2,152	0.025	66.07	1.66	1.059	0.99996
4171	1	0.62	5	185	682	0.007	37.00	0.27	1.000	0.99999
4172	4	16.50	5	1,403	1,727	0.003	280.60	0.81	1.000	0.99998
4181	2	7.90	2	474	625	0.003	237.00	0.76	1.000	0.99998
4211	3	5.40	18	1,625	888	0.020	90.28	1.83	1.059	0.99996
4212	6	7.19	36	4,061	820	0.044	112.81	4.95	1.125	0.99989
4222	4	6.27	43	4,501	1,045	0.041	104.67	4.31	1.103	0.99990
4223	1	4.57	8	2,195	924	0.009	274.38	2.38	1.000	0.99995
4224	9	30.16	43	9,889	758	0.057	229.98	13.05	1.000	0.99970
4303	1	1.07	13	834	1,000	0.013	64.15	0.83	1.000	0.99998
4311	2	3.26	32	1,615	860	0.037	50.47	1.88	1.000	0.99996
4324	1	1.90	1	114	1,262	0.001	114.00	0.09	1.000	0.99999
4331	1	1.33	1	80	314	0.003	80.00	0.25	1.000	0.99999
4341	3	1.97	30	1,259	1,821	0.016	41.97	0.69	1.034	0.99998
4342	1	0.82	3	148	1,760	0.002	49.33	0.08	1.000	0.99999
4343	4	5.43	27	2,412	1,034	0.026	89.33	2.33	1.350	0.99995
4361	7	6.88	38	2,608	1,602	0.024	68.63	1.63	1.056	0.99996
4362	4	3.24	84	4,542	827	0.102	54.07	5.49	1.024	0.99987

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
4363	4	3.90	30	2,327	1,420	0.021	77.57	1.64	1.000	0.99996
4371	3	2.97	28	2,634	1,537	0.018	94.07	1.71	1.077	0.99996
4372	3	2.54	9	332	445	0.020	36.89	0.75	1.000	0.99998
4373	1	0.57	1	34	783	0.001	34.00	0.04	1.000	0.99999
4386	1	4.37	7	1,838	1,663	0.004	262.57	1.11	1.000	0.99997
4431	7	7.49	147	2,214	1,390	0.106	15.06	1.59	1.043	0.99996
4511	3	2.85	4	232	1,135	0.004	58.00	0.20	1.000	0.99999
4601	1	0.60	28	1,011	420	0.067	36.11	2.41	1.000	0.99994
4602	2	4.40	103	14,213	950	0.108	137.99	14.96	1.000	0.99965
4692	2	3.65	88	10,891	475	0.185	123.76	22.93	1.492	0.99947
4712	3	3.94	3	236	58	0.052	78.67	4.07	1.500	0.99991
4714	1	1.20	1	72	328	0.003	72.00	0.22	1.000	0.99999
5601	5	16.07	70	9,884	1,304	0.054	141.20	7.58	1.014	0.99982
5602	2	2.16	4	322	681	0.006	80.50	0.47	1.000	0.99999
5902	1	0.63	24	915	945	0.025	38.13	0.97	1.000	0.99998
5904	2	2.25	51	3,206	1,230	0.041	62.86	2.61	1.000	0.99994
5905	1	3.30	7	1,392	1,875	0.004	198.86	0.74	1.000	0.99998
6022	1	1.30	64	5,015	491	0.130	78.36	10.21	1.000	0.99976
6024	2	1.70	9	495	395	0.023	55.00	1.25	1.000	0.99997
6141	4	8.44	44	3,830	633	0.070	87.05	6.05	1.023	0.99986
6144	1	1.98	14	1,669	323	0.043	119.21	5.17	1.000	0.99988

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUSTOMERS SERVED	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
Total:	427	695.24	16,351	1,598,363	165,764	0.099	97.75	9.64	1.025	0.99978

THE EMPIRE DISTRICT ELECTRIC COMPANY
CUSTOMER OUTAGE STATISTICS AND INDICES FOR MISSOURI
7/1/2018 to 7/31/2018
INCLUDING MAJOR EVENT DAYS

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1082	12	18.50	40	3,216	1,342	0.030	80.40	2.40	1.000	0.99995
1092	3	6.58	28	1,397	976	0.029	49.89	1.43	1.000	0.99997
1094	2	1.97	19	1,162	1,229	0.015	61.16	0.95	1.056	0.99998
1102	2	2.02	55	3,266	753	0.073	59.38	4.34	1.000	0.99990
1141	1	0.78	902	42,920	902	1.000	47.58	47.58	1.000	0.99893
1142	1	3.43	6	1,237	214	0.028	206.17	5.78	1.000	0.99987
1211	23	37.14	1,982	468,402	1,482	1.337	236.33	316.06	1.908	0.99292
1212	2	18.24	7	4,099	332	0.021	585.57	12.35	1.000	0.99972
1213	5	7.06	584	120,977	555	1.052	207.15	217.98	1.052	0.99512
1230	1	0.90	1	54	1,180	0.001	54.00	0.05	1.000	0.99999
1232	1	1.33	24	1,942	1,176	0.020	80.92	1.65	1.000	0.99996
1233	1	2.48	27	4,043	640	0.042	149.74	6.32	1.000	0.99986
1241	2	6.07	11	3,262	868	0.013	296.55	3.76	1.000	0.99992
1242	2	2.52	40	2,718	858	0.047	67.95	3.17	1.000	0.99993
1243	3	3.34	19	1,764	1,213	0.016	92.84	1.45	1.000	0.99997
1263	1	1.07	21	1,349	1,146	0.018	64.24	1.18	1.000	0.99997
1264	1	0.90	1	54	18	0.056	54.00	3.00	1.000	0.99993

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1271	2	2.40	13	1,154	966	0.013	88.77	1.19	1.083	0.99997
1273	3	5.40	75	13,192	865	0.087	175.89	15.25	1.000	0.99966
1274	1	1.85	1	111	4	0.250	111.00	27.75	1.000	0.99938
1282	1	1.20	74	5,328	692	0.107	72.00	7.70	1.000	0.99983
1284	1	1.28	1	77	950	0.001	77.00	0.08	1.000	0.99999
1285	1	0.95	43	2,482	1,096	0.039	57.72	2.26	1.000	0.99995
1311	6	8.35	282	54,991	275	1.025	195.00	199.97	1.025	0.99552
1312	1	5.93	47	16,520	940	0.050	351.49	17.57	1.000	0.99961
1451	1	2.48	29	4,326	530	0.055	149.17	8.16	1.000	0.99982
1452	3	2.73	8	412	451	0.018	51.50	0.91	1.333	0.99998
1453	2	2.10	7	509	1,800	0.004	72.71	0.28	1.167	0.99999
1521	3	4.75	6	483	367	0.016	80.50	1.32	1.000	0.99997
1523	6	7.42	349	28,050	734	0.475	80.37	38.22	1.084	0.99914
1841	4	6.99	31	3,347	518	0.060	107.97	6.46	1.000	0.99986
1843	7	9.50	51	4,321	1,079	0.047	84.73	4.00	1.020	0.99991
2051	2	2.05	5	224	165	0.030	44.80	1.36	1.000	0.99997
2091	5	21.32	161	70,077	883	0.182	435.26	79.36	1.000	0.99822
2171	1	2.42	1	145	566	0.002	145.00	0.26	1.000	0.99999
2172	1	0.98	224	13,275	224	1.000	59.26	59.26	1.000	0.99867
2211	1	7.62	1	457	723	0.001	457.00	0.63	1.000	0.99999
2212	6	20.98	63	27,874	1,295	0.049	442.44	21.52	1.050	0.99952
2491	1	1.73	44	4,576	63	0.698	104.00	72.63	1.000	0.99837

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
2511	2	12.50	6	2,246	620	0.010	374.33	3.62	1.000	0.99992
2621	9	29.45	130	16,884	1,173	0.111	129.88	14.39	1.000	0.99968
2921	3	2.77	21	985	375	0.056	46.90	2.63	1.050	0.99994
2951	4	6.96	158	15,775	1,400	0.113	99.84	11.27	1.264	0.99975
2961	2	7.40	116	36,416	646	0.180	313.93	56.37	1.000	0.99874
2962	1	0.60	1	36	257	0.004	36.00	0.14	1.000	0.99999
3081	1	4.25	122	31,146	574	0.213	255.30	54.26	1.000	0.99878
3181	7	14.78	82	13,368	730	0.112	163.02	18.31	1.012	0.99959
3221	3	12.11	72	7,753	1,247	0.058	107.68	6.22	1.000	0.99986
3222	2	1.12	2	67	773	0.003	33.50	0.09	1.000	0.99999
3232	4	6.03	472	47,225	429	1.100	100.05	110.08	1.100	0.99753
3302	1	1.30	1	78	901	0.001	78.00	0.09	1.000	0.99999
3311	1	0.65	9	355	535	0.017	39.44	0.66	1.000	0.99999
3315	1	2.57	1	154	1,581	0.001	154.00	0.10	1.000	0.99999
3422	1	1.45	70	6,154	976	0.072	87.91	6.31	1.000	0.99986
3423	3	13.95	389	37,449	388	1.003	96.27	96.52	1.485	0.99784
3472	1	0.67	1	40	1,284	0.001	40.00	0.03	1.000	0.99999
3551	1	0.75	1	45	1,032	0.001	45.00	0.04	1.000	0.99999
3591	5	13.70	1,345	96,686	1,222	1.101	71.89	79.12	1.101	0.99823
3592	5	29.75	1,846	138,079	1,747	1.057	74.80	79.04	1.057	0.99823
3593	6	11.22	1,089	73,026	929	1.172	67.06	78.61	1.172	0.99824
3594	4	3.52	1,315	69,716	684	1.923	53.02	101.92	2.142	0.99772

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
3621	1	0.83	1	50	1,552	0.001	50.00	0.03	1.000	0.99999
3661	6	5.08	128	3,532	1,030	0.124	27.59	3.43	1.000	0.99992
3662	1	0.50	31	933	788	0.039	30.10	1.18	1.000	0.99997
3663	3	3.10	10	666	748	0.013	66.60	0.89	1.111	0.99998
3671	1	1.42	6	514	504	0.012	85.67	1.02	1.000	0.99998
3691	5	29.98	80	39,771	1,162	0.069	497.14	34.23	1.039	0.99923
3692	2	3.85	47	4,932	410	0.115	104.94	12.03	1.000	0.99973
3693	1	1.03	187	11,690	187	1.000	62.51	62.51	1.000	0.99860
3694	6	11.83	38	5,161	1,336	0.028	135.82	3.86	1.086	0.99991
3751	4	5.69	19	1,462	886	0.021	76.95	1.65	1.000	0.99996
3871	1	2.40	1	144	1,351	0.001	144.00	0.11	1.000	0.99999
3872	2	5.02	9	1,797	1,066	0.008	199.67	1.69	1.125	0.99996
3873	1	2.28	142	19,489	798	0.178	137.25	24.42	1.000	0.99945
3878	2	2.66	62	6,981	797	0.078	112.60	8.76	1.000	0.99980
3891	2	4.55	2	273	459	0.004	136.50	0.59	1.000	0.99999
3893	5	5.07	72	3,934	1,123	0.064	54.64	3.50	1.043	0.99992
3901	3	2.50	72	3,658	878	0.082	50.81	4.17	1.014	0.99991
3902	2	4.33	16	2,615	88	0.182	163.44	29.72	1.067	0.99933
3914	2	3.05	96	9,618	375	0.256	100.19	25.65	1.600	0.99943
3951	5	5.07	57	4,168	931	0.061	73.12	4.48	1.036	0.99990
3952	5	7.43	61	4,305	1,271	0.048	70.57	3.39	1.052	0.99992
3953	2	1.08	5	179	525	0.010	35.80	0.34	1.000	0.99999

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
3971	3	2.61	21	1,237	664	0.032	58.90	1.86	1.050	0.99996
3981	8	17.64	164	28,242	1,504	0.109	172.21	18.78	1.101	0.99958
3982	2	3.05	2	183	1,771	0.001	91.50	0.10	1.000	0.99999
3991	2	0.77	2	46	731	0.003	23.00	0.06	1.000	0.99999
4031	2	3.23	18	1,251	708	0.025	69.50	1.77	1.059	0.99996
4091	19	19.35	1,547	243,998	1,149	1.346	157.72	212.36	1.346	0.99524
4101	4	9.62	60	6,709	963	0.062	111.82	6.97	1.017	0.99984
4102	2	4.06	2	244	537	0.004	122.00	0.45	1.000	0.99999
4134	1	3.48	73	15,243	836	0.087	208.81	18.23	1.000	0.99959
4138	1	1.82	48	5,240	746	0.064	109.17	7.02	1.000	0.99984
4141	1	2.85	1	171	82	0.012	171.00	2.09	1.000	0.99995
4152	5	7.87	6	582	241	0.025	97.00	2.41	1.000	0.99995
4153	3	10.49	89	13,776	1,297	0.069	154.79	10.62	1.072	0.99976
4155	2	5.36	248	40,709	2,152	0.115	164.15	18.92	1.088	0.99958
4171	1	0.17	19	194	682	0.028	10.21	0.28	1.000	0.99999
4172	4	9.00	302	75,952	1,727	0.175	251.50	43.98	1.027	0.99901
4181	4	5.12	665	28,977	625	1.064	43.57	46.36	1.067	0.99896
4182	13	10.37	76	2,853	901	0.084	37.54	3.17	1.000	0.99993
4211	6	6.12	82	3,921	888	0.092	47.82	4.42	1.025	0.99990
4212	2	3.95	2	237	820	0.002	118.50	0.29	1.000	0.99999
4303	4	4.43	95	6,181	1,000	0.095	65.06	6.18	1.000	0.99986
4324	1	1.23	14	1,037	1,262	0.011	74.07	0.82	1.000	0.99998

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
4334	2	6.77	13	3,092	367	0.035	237.85	8.43	1.083	0.99981
4341	8	10.70	151	14,635	1,821	0.083	96.92	8.04	1.027	0.99982
4342	1	2.50	1	150	1,760	0.001	150.00	0.09	1.000	0.99999
4343	6	9.54	31	3,121	1,034	0.030	100.68	3.02	1.000	0.99993
4361	4	7.17	4	430	1,602	0.002	107.50	0.27	1.000	0.99999
4363	7	7.55	135	11,561	1,420	0.095	85.64	8.14	1.000	0.99982
4371	1	2.02	1	121	1,537	0.001	121.00	0.08	1.000	0.99999
4372	6	14.05	610	35,014	445	1.371	57.40	78.68	1.371	0.99824
4373	3	3.17	789	42,874	783	1.008	54.34	54.76	1.006	0.99877
4381	1	3.73	1	224	436	0.002	224.00	0.51	1.000	0.99999
4383	1	3.27	2	392	146	0.014	196.00	2.68	1.000	0.99994
4385	5	13.21	1,118	252,023	1,119	0.999	225.42	225.22	1.661	0.99495
4386	1	2.62	1	157	1,663	0.001	157.00	0.09	1.000	0.99999
4431	6	10.38	18	2,237	1,390	0.013	124.28	1.61	1.059	0.99996
4432	3	5.36	8	660	462	0.017	82.50	1.43	1.143	0.99997
4511	2	3.18	1,178	18,238	1,135	1.038	15.48	16.07	1.038	0.99964
4512	2	3.15	2,036	193,334	1,018	2.000	94.96	189.92	2.000	0.99575
4513	3	3.07	686	6,718	684	1.003	9.79	9.82	1.003	0.99978
454	1	1.17	1	70	58	0.017	70.00	1.21	1.000	0.99997
4601	2	1.96	36	1,940	420	0.086	53.89	4.62	1.000	0.99990
4602	2	3.38	2	203	950	0.002	101.50	0.21	1.000	0.99999
4714	6	17.62	16	1,747	328	0.049	109.19	5.33	1.333	0.99988

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
5601	4	4.45	458	13,728	1,304	0.351	29.97	10.53	1.000	0.99976
5603	3	3.38	22	1,619	1,291	0.017	73.59	1.25	1.100	0.99997
5901	1	2.68	1	161	687	0.001	161.00	0.23	1.000	0.99999
5902	4	4.73	71	4,773	945	0.075	67.23	5.05	1.000	0.99989
5903	4	2.93	66	3,284	259	0.255	49.76	12.68	1.571	0.99972
5904	6	8.00	96	4,336	1,230	0.078	45.17	3.53	1.043	0.99992
6141	4	9.91	280	86,799	633	0.442	310.00	137.12	1.018	0.99693
6142	2	5.59	81	12,869	311	0.260	158.88	41.38	1.025	0.99907
6143	1	1.68	75	7,628	373	0.201	101.71	20.45	1.000	0.99954
	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUSTOMERS SERVED	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
Total:	443	832.52	25,198	2,834,469	165,764	0.152	112.49	17.10	1.194	0.99962

THE EMPIRE DISTRICT ELECTRIC COMPANY
CUSTOMER OUTAGE STATISTICS AND INDICES FOR MISSOURI
7/1/2018 to 7/31/2018
EXCLUDING MAJOR EVENT DAYS

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1082	11	14.02	38	2,678	1,342	0.028	70.47	2.00	1.000	0.99995
1092	2	2.45	27	1,149	976	0.028	42.56	1.18	1.000	0.99997
1094	2	1.97	19	1,162	1,229	0.015	61.16	0.95	1.056	0.99998
1102	2	2.02	55	3,266	753	0.073	59.38	4.34	1.000	0.99990
1211	21	26.04	501	35,636	1,482	0.338	71.13	24.05	1.066	0.99944
1213	4	3.48	29	1,495	555	0.052	51.55	2.69	1.036	0.99994
1230	1	0.90	1	54	1,180	0.001	54.00	0.05	1.000	0.99999
1232	1	1.33	24	1,942	1,176	0.020	80.92	1.65	1.000	0.99996
1233	1	2.48	27	4,043	640	0.042	149.74	6.32	1.000	0.99985
1241	1	0.72	1	43	868	0.001	43.00	0.05	1.000	0.99999
1242	2	2.52	40	2,718	858	0.047	67.95	3.17	1.000	0.99993
1243	3	3.34	19	1,764	1,213	0.016	92.84	1.45	2.111	0.99997
1263	1	1.07	21	1,349	1,146	0.018	64.24	1.18	1.000	0.99997
1264	1	0.90	1	54	18	0.056	54.00	3.00	1.000	0.99993
1271	2	2.40	13	1,154	966	0.013	88.77	1.19	1.083	0.99997
1273	3	5.40	75	13,192	865	0.087	175.89	15.25	1.000	0.99965
1274	1	1.85	1	111	4	0.250	111.00	27.75	1.000	0.99936

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1282	1	1.20	74	5,328	692	0.107	72.00	7.70	1.000	0.99982
1284	1	1.28	1	77	950	0.001	77.00	0.08	1.000	0.99999
1285	1	0.95	43	2,482	1,096	0.039	57.72	2.26	1.000	0.99995
1311	1	1.07	3	192	275	0.011	64.00	0.70	1.000	0.99998
1312	1	5.93	47	16,520	940	0.050	351.49	17.57	1.000	0.99959
1451	1	2.48	29	4,326	530	0.055	149.17	8.16	1.000	0.99981
1452	3	2.73	8	412	451	0.018	51.50	0.91	1.333	0.99998
1453	2	2.10	7	509	1,800	0.004	72.71	0.28	1.167	0.99999
1521	3	4.75	6	483	367	0.016	80.50	1.32	1.000	0.99997
1523	2	2.42	345	27,750	734	0.470	80.43	37.81	1.071	0.99912
1841	4	6.99	31	3,347	518	0.060	107.97	6.46	1.000	0.99985
1843	7	9.50	51	4,321	1,079	0.047	84.73	4.00	1.020	0.99991
2051	2	2.05	5	224	165	0.030	44.80	1.36	1.000	0.99997
2091	5	21.32	161	70,077	883	0.182	435.26	79.36	1.000	0.99816
2172	1	0.98	224	13,275	224	1.000	59.26	59.26	1.000	0.99863
2212	4	4.40	14	814	1,295	0.011	58.14	0.63	1.167	0.99999
2491	1	1.73	44	4,576	63	0.698	104.00	72.63	1.000	0.99832
2621	5	10.06	119	13,505	1,173	0.101	113.49	11.51	1.000	0.99973
2921	3	2.77	21	985	375	0.056	46.90	2.63	1.050	0.99994
2951	3	4.79	129	11,984	1,400	0.092	92.90	8.56	1.344	0.99980
2961	2	7.40	116	36,416	646	0.180	313.93	56.37	1.000	0.99870
2962	1	0.60	1	36	257	0.004	36.00	0.14	1.000	0.99999

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
3081	1	4.25	122	31,146	574	0.213	255.30	54.26	1.000	0.99874
3181	5	11.27	80	13,157	730	0.110	164.46	18.02	1.000	0.99958
3221	3	12.11	72	7,753	1,247	0.058	107.68	6.22	1.000	0.99986
3222	2	1.12	2	67	773	0.003	33.50	0.09	1.000	0.99999
3232	4	6.03	472	47,225	429	1.100	100.05	110.08	1.100	0.99745
3302	1	1.30	1	78	901	0.001	78.00	0.09	1.000	0.99999
3311	1	0.65	9	355	535	0.017	39.44	0.66	1.000	0.99998
3315	1	2.57	1	154	1,581	0.001	154.00	0.10	1.000	0.99999
3422	1	1.45	70	6,154	976	0.072	87.91	6.31	1.000	0.99985
3423	3	13.95	389	37,449	388	1.003	96.27	96.52	1.485	0.99777
3472	1	0.67	1	40	1,284	0.001	40.00	0.03	1.000	0.99999
3551	1	0.75	1	45	1,032	0.001	45.00	0.04	1.000	0.99999
3591	4	8.58	1,299	82,528	1,222	1.063	63.53	67.54	1.063	0.99844
3592	2	1.37	1,764	95,120	1,747	1.010	53.92	54.45	1.010	0.99874
3593	5	7.82	1,065	68,119	929	1.146	63.96	73.33	1.146	0.99830
3594	4	3.52	1,315	69,716	684	1.923	53.02	101.92	2.142	0.99764
3621	1	0.83	1	50	1,552	0.001	50.00	0.03	1.000	0.99999
3661	6	5.08	128	3,532	1,030	0.124	27.59	3.43	1.000	0.99992
3662	1	0.50	31	933	788	0.039	30.10	1.18	1.000	0.99997
3663	3	3.10	10	666	748	0.013	66.60	0.89	1.111	0.99998
3671	1	1.42	6	514	504	0.012	85.67	1.02	1.000	0.99998
3691	1	1.97	1	118	1,162	0.001	118.00	0.10	1.000	0.99999

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
3692	2	3.85	47	4,932	410	0.115	104.94	12.03	1.000	0.99972
3694	2	2.24	28	3,524	1,336	0.021	125.86	2.64	1.037	0.99994
3751	3	4.46	3	268	886	0.003	89.33	0.30	1.000	0.99999
3872	2	5.02	9	1,797	1,066	0.008	199.67	1.69	1.125	0.99996
3873	1	2.28	142	19,489	798	0.178	137.25	24.42	1.000	0.99943
3878	1	0.58	9	320	797	0.011	35.56	0.40	1.000	0.99999
3891	2	4.55	2	273	459	0.004	136.50	0.59	1.000	0.99999
3893	4	3.84	71	3,860	1,123	0.063	54.37	3.44	1.044	0.99992
3901	3	2.50	72	3,658	878	0.082	50.81	4.17	1.014	0.99990
3902	2	4.33	16	2,615	88	0.182	163.44	29.72	1.067	0.99931
3914	2	3.05	96	9,618	375	0.256	100.19	25.65	1.600	0.99941
3951	3	3.62	33	2,901	931	0.035	87.91	3.12	1.000	0.99993
3952	5	7.43	61	4,305	1,271	0.048	70.57	3.39	1.052	0.99992
3953	2	1.08	5	179	525	0.010	35.80	0.34	1.000	0.99999
3971	3	2.61	21	1,237	664	0.032	58.90	1.86	1.050	0.99996
3981	8	17.64	164	28,242	1,504	0.109	172.21	18.78	1.101	0.99957
3982	2	3.05	2	183	1,771	0.001	91.50	0.10	1.000	0.99999
3991	2	0.77	2	46	731	0.003	23.00	0.06	1.000	0.99999
4031	1	1.10	17	1,123	708	0.024	66.06	1.59	1.000	0.99996
4091	19	19.35	1,547	243,998	1,149	1.346	157.72	212.36	1.346	0.99508
4101	1	4.30	1	258	963	0.001	258.00	0.27	1.000	0.99999
4102	1	2.03	1	122	537	0.002	122.00	0.23	1.000	0.99999

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
4141	1	2.85	1	171	82	0.012	171.00	2.09	1.000	0.99995
4153	3	10.49	89	13,776	1,297	0.069	154.79	10.62	1.072	0.99975
4155	1	2.63	24	3,809	2,152	0.011	158.71	1.77	1.000	0.99996
4171	1	0.17	19	194	682	0.028	10.21	0.28	1.000	0.99999
4172	4	9.00	302	75,952	1,727	0.175	251.50	43.98	1.027	0.99898
4181	4	5.12	665	28,977	625	1.064	43.57	46.36	1.067	0.99893
4182	13	10.37	76	2,853	901	0.084	37.54	3.17	1.000	0.99993
4211	6	6.12	82	3,921	888	0.092	47.82	4.42	1.025	0.99990
4212	2	3.95	2	237	820	0.002	118.50	0.29	1.000	0.99999
4303	4	4.43	95	6,181	1,000	0.095	65.06	6.18	1.000	0.99986
4324	1	1.23	14	1,037	1,262	0.011	74.07	0.82	1.000	0.99998
4334	1	2.70	1	162	367	0.003	162.00	0.44	1.000	0.99999
4341	8	10.70	151	14,635	1,821	0.083	96.92	8.04	1.027	0.99981
4343	5	7.52	12	814	1,034	0.012	67.83	0.79	1.000	0.99998
4361	3	2.89	3	173	1,602	0.002	57.67	0.11	1.000	0.99999
4363	7	7.55	135	11,561	1,420	0.095	85.64	8.14	1.000	0.99981
4371	1	2.02	1	121	1,537	0.001	121.00	0.08	1.000	0.99999
4372	3	1.52	447	13,308	445	1.004	29.77	29.91	1.004	0.99931
4373	3	3.17	789	42,874	783	1.008	54.34	54.76	1.006	0.99873
4381	1	3.73	1	224	436	0.002	224.00	0.51	1.000	0.99999
4383	1	3.27	2	392	146	0.014	196.00	2.68	1.000	0.99994
4386	1	2.62	1	157	1,663	0.001	157.00	0.09	1.000	0.99999

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
4431	6	10.38	18	2,237	1,390	0.013	124.28	1.61	1.059	0.99996
4432	3	5.36	8	660	462	0.017	82.50	1.43	1.143	0.99997
4511	2	3.18	1,178	18,238	1,135	1.038	15.48	16.07	1.038	0.99963
4512	1	0.15	1,018	9,518	1,018	1.000	9.35	9.35	1.000	0.99978
4513	3	3.07	686	6,718	684	1.003	9.79	9.82	1.003	0.99977
454	1	1.17	1	70	58	0.017	70.00	1.21	1.000	0.99997
4601	2	1.96	36	1,940	420	0.086	53.89	4.62	1.000	0.99989
4602	2	3.38	2	203	950	0.002	101.50	0.21	1.000	0.99999
4714	6	17.62	16	1,747	328	0.049	109.19	5.33	1.333	0.99988
5601	4	4.45	458	13,728	1,304	0.351	29.97	10.53	1.000	0.99976
5603	3	3.38	22	1,619	1,291	0.017	73.59	1.25	1.100	0.99997
5901	1	2.68	1	161	687	0.001	161.00	0.23	1.000	0.99999
5902	4	4.73	71	4,773	945	0.075	67.23	5.05	1.000	0.99988
5903	4	2.93	66	3,284	259	0.255	49.76	12.68	1.571	0.99971
5904	6	8.00	96	4,336	1,230	0.078	45.17	3.53	1.043	0.99992
6141	3	4.58	14	1,600	633	0.022	114.29	2.53	1.167	0.99994
6142	1	2.22	51	6,788	311	0.164	133.10	21.83	1.000	0.99949
	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUSTOMERS SERVED	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
Total:	362	543.67	18,214	1,386,465	165,764	0.110	76.12	8.36	1.079	0.99981

THE EMPIRE DISTRICT ELECTRIC COMPANY
CUSTOMER OUTAGE STATISTICS AND INDICES FOR MISSOURI
8/1/2018 to 8/31/2018
INCLUDING MAJOR EVENT DAYS

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1050	3	1.69	8	311	1,636	0.005	38.88	0.19	1.000	0.99999
1082	5	10.47	1,267	101,189	1,344	0.943	79.87	75.29	1.003	0.99831
1092	15	30.70	118	12,564	976	0.121	106.47	12.87	1.054	0.99971
1093	3	11.19	31	5,047	238	0.130	162.81	21.21	1.069	0.99952
1094	3	8.28	23	5,514	1,231	0.019	239.74	4.48	1.000	0.99990
1102	1	0.70	3	127	780	0.004	42.33	0.16	1.000	0.99999
1103	1	0.57	21	719	978	0.021	34.24	0.74	1.000	0.99998
1141	3	2.30	30	2,012	902	0.033	67.07	2.23	1.071	0.99995
1142	1	2.62	199	31,262	214	0.930	157.10	146.08	1.000	0.99673
1211	4	9.17	18	4,419	1,484	0.012	245.50	2.98	1.000	0.99993
1232	4	4.78	235	18,741	1,178	0.199	79.75	15.91	1.004	0.99964
1241	2	6.14	109	34,214	870	0.125	313.89	39.33	1.009	0.99912
1242	1	0.52	22	702	858	0.026	31.91	0.82	1.000	0.99998
1243	5	23.86	1,219	335,628	1,216	1.002	275.33	276.01	1.325	0.99382
1261	1	2.13	397	51,186	397	1.000	128.93	128.93	1.000	0.99711
1262	1	1.48	160	14,381	159	1.006	89.88	90.45	1.000	0.99797
1263	2	4.52	1,165	171,150	1,148	1.015	146.91	149.09	1.017	0.99666

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1264	3	3.42	20	2,617	18	1.111	130.85	145.39	1.111	0.99674
1265	4	9.68	1,331	140,969	1,286	1.035	105.91	109.62	1.035	0.99754
1267	1	2.12	82	10,485	82	1.000	127.87	127.87	1.000	0.99714
1271	3	5.67	17	2,514	967	0.018	147.88	2.60	1.063	0.99994
1273	6	15.03	81	23,197	865	0.094	286.38	26.82	1.000	0.99940
1284	5	12.59	48	12,934	950	0.051	269.46	13.61	1.263	0.99970
1285	1	2.10	1,096	138,424	1,096	1.000	126.30	126.30	1.000	0.99717
1312	1	1.18	10	719	940	0.011	71.90	0.76	1.000	0.99998
1451	1	0.87	28	1,467	531	0.053	52.39	2.76	1.000	0.99994
1452	4	3.92	4	235	452	0.009	58.75	0.52	1.000	0.99999
1453	2	1.95	11	912	1,800	0.006	82.91	0.51	1.000	0.99999
1521	1	1.25	1	75	369	0.003	75.00	0.20	1.000	0.99999
1842	6	7.45	20	1,652	282	0.071	82.60	5.86	1.000	0.99987
1843	2	1.78	27	1,519	1,082	0.025	56.26	1.40	1.038	0.99997
2051	2	1.85	10	598	166	0.060	59.80	3.60	1.000	0.99992
2052	1	0.43	1	26	85	0.012	26.00	0.31	1.000	0.99999
2091	1	2.93	1	176	886	0.001	176.00	0.20	1.000	0.99999
2092	1	1.47	2	176	924	0.002	88.00	0.19	1.000	0.99999
2211	3	3.31	57	4,115	726	0.079	72.19	5.67	1.000	0.99987
2212	4	10.39	25	3,729	1,298	0.019	149.16	2.87	1.087	0.99994
2501	2	3.75	80	12,820	84	0.952	160.25	152.62	1.013	0.99658
2511	3	5.70	25	2,281	620	0.040	91.24	3.68	1.000	0.99992

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
2621	4	8.07	4	484	1,176	0.003	121.00	0.41	1.000	0.99999
2921	2	2.00	750	45,424	375	2.000	60.57	121.13	2.000	0.99729
2951	1	1.03	1	62	1,404	0.001	62.00	0.04	1.000	0.99999
2952	1	1.70	1	102	159	0.006	102.00	0.64	1.000	0.99999
3041	1	0.18	81	897	81	1.000	11.07	11.07	1.000	0.99975
3081	1	0.25	576	9,168	576	1.000	15.92	15.92	1.000	0.99964
3082	1	0.27	322	5,463	322	1.000	16.97	16.97	1.000	0.99962
3122	3	18.27	55	16,890	854	0.064	307.09	19.78	1.279	0.99956
3123	2	2.83	2	170	1,065	0.002	85.00	0.16	1.000	0.99999
3181	2	1.98	736	7,313	732	1.005	9.94	9.99	1.001	0.99978
3222	1	0.93	1	56	774	0.001	56.00	0.07	1.000	0.99999
3232	1	0.13	429	3,789	429	1.000	8.83	8.83	1.000	0.99980
3301	2	2.95	782	54,739	743	1.052	70.00	73.67	1.055	0.99835
3303	11	10.40	69	4,056	966	0.071	58.78	4.20	1.000	0.99991
3304	6	10.01	77	8,873	1,076	0.072	115.23	8.25	1.055	0.99982
3311	1	1.18	40	2,808	535	0.075	70.20	5.25	1.000	0.99988
3315	2	2.87	18	1,369	1,584	0.011	76.06	0.86	1.000	0.99998
3421	1	0.57	14	486	296	0.047	34.71	1.64	1.000	0.99996
3422	2	2.08	20	1,288	978	0.020	64.40	1.32	1.000	0.99997
3471	1	1.07	1	64	470	0.002	64.00	0.14	1.000	0.99999
3472	2	5.47	6	1,331	1,285	0.005	221.83	1.04	1.000	0.99998
3552	2	3.60	8	961	576	0.014	120.13	1.67	1.000	0.99996

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
3553	6	15.01	897	93,588	874	1.026	104.33	107.08	1.048	0.99760
3591	3	11.28	99	15,003	1,239	0.080	151.55	12.11	1.000	0.99973
3592	3	9.25	32	5,017	1,750	0.018	156.78	2.87	1.032	0.99994
3594	5	8.26	61	5,768	688	0.089	94.56	8.38	1.017	0.99981
3621	1	0.97	1	58	1,557	0.001	58.00	0.04	1.000	0.99999
3661	4	15.82	99	30,669	1,031	0.096	309.79	29.75	1.000	0.99933
3663	3	3.66	3	220	747	0.004	73.33	0.29	1.000	0.99999
3664	5	5.03	155	9,140	554	0.280	58.97	16.50	1.026	0.99963
3671	3	2.01	556	37,089	504	1.103	66.71	73.59	1.103	0.99835
3672	1	1.23	130	9,673	137	0.949	74.41	70.61	1.000	0.99842
3691	3	9.21	62	14,042	1,164	0.053	226.48	12.06	1.016	0.99973
3692	1	2.10	31	3,906	410	0.076	126.00	9.53	1.000	0.99979
3694	4	5.17	12	1,063	1,348	0.009	88.58	0.79	1.714	0.99998
3702	1	1.10	55	3,637	612	0.090	66.13	5.94	1.000	0.99987
3751	3	4.86	48	3,829	888	0.054	79.77	4.31	1.021	0.99990
3872	2	1.93	21	1,176	1,068	0.020	56.00	1.10	1.615	0.99998
3873	1	0.93	1	56	801	0.001	56.00	0.07	1.000	0.99999
3878	1	1.33	791	64,057	798	0.991	80.98	80.27	1.000	0.99820
3891	1	1.52	4	366	444	0.009	91.50	0.82	1.000	0.99998
3893	3	5.31	21	3,449	1,124	0.019	164.24	3.07	1.050	0.99993
3901	1	1.00	4	240	882	0.005	60.00	0.27	1.000	0.99999
3912	3	5.75	430	8,396	1,181	0.364	19.53	7.11	1.059	0.99984

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
3913	1	0.78	17	799	820	0.021	47.00	0.97	1.000	0.99998
3914	2	2.10	95	3,210	376	0.253	33.79	8.54	1.000	0.99981
3951	1	2.57	34	5,254	931	0.037	154.53	5.64	1.000	0.99987
3952	5	6.03	21	1,230	1,274	0.016	58.57	0.97	1.000	0.99998
3981	5	4.05	36	1,564	1,506	0.024	43.44	1.04	1.029	0.99998
3982	3	9.25	3	555	1,772	0.002	185.00	0.31	1.000	0.99999
3991	3	5.45	732	90,794	733	0.999	124.04	123.87	1.003	0.99723
403	1	3.38	4	814	267	0.015	203.50	3.05	1.000	0.99993
4031	1	5.30	17	5,409	708	0.024	318.18	7.64	1.000	0.99983
4091	3	5.29	36	6,902	1,151	0.031	191.72	6.00	1.029	0.99987
4092	6	9.83	25	916	436	0.057	36.64	2.10	1.000	0.99995
4137	1	2.75	1	165	798	0.001	165.00	0.21	1.000	0.99999
4138	1	1.90	1	114	748	0.001	114.00	0.15	1.000	0.99999
4141	3	4.35	90	8,327	82	1.098	92.52	101.55	1.000	0.99773
4152	3	4.22	1,264	91,139	241	5.245	72.10	378.17	1.013	0.99153
4154	3	15.87	116	32,362	1,219	0.095	278.98	26.55	1.018	0.99941
4155	3	7.33	1,817	170,554	2,155	0.843	93.87	79.14	1.224	0.99823
4172	8	14.48	1,755	93,564	1,729	1.015	53.31	54.11	1.014	0.99879
4173	1	1.50	14	1,260	638	0.022	90.00	1.97	1.000	0.99996
4212	4	4.93	114	9,214	820	0.139	80.82	11.24	1.009	0.99975
4222	3	2.49	1,049	104,523	1,046	1.003	99.64	99.93	1.005	0.99776
4223	3	9.62	1,056	177,717	954	1.107	168.29	186.29	1.076	0.99583

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
4224	4	9.32	789	83,454	758	1.041	105.77	110.10	1.041	0.99753
4302	1	5.37	16	5,163	652	0.025	322.69	7.92	1.000	0.99982
4303	5	8.77	40	9,358	1,026	0.039	233.95	9.12	1.053	0.99980
4324	1	0.80	1	48	955	0.001	48.00	0.05	1.000	0.99999
4331	1	2.67	122	19,544	316	0.386	160.20	61.85	1.000	0.99861
4341	7	5.92	49	2,203	1,823	0.027	44.96	1.21	1.089	0.99997
4343	2	1.64	123	5,611	1,034	0.119	45.62	5.43	1.000	0.99988
4361	1	0.95	49	2,834	1,603	0.031	57.84	1.77	1.000	0.99996
4362	1	0.95	51	2,929	827	0.062	57.43	3.54	1.000	0.99992
4363	7	9.93	1,461	140,644	1,420	1.029	96.27	99.05	1.030	0.99778
4371	8	10.91	1,593	220,885	1,538	1.036	138.66	143.62	1.039	0.99678
4372	5	5.39	510	67,593	446	1.143	132.54	151.55	1.143	0.99660
4373	3	5.72	787	113,448	787	1.000	144.15	144.15	1.003	0.99677
4431	3	3.87	57	4,430	1,392	0.041	77.72	3.18	1.000	0.99993
4432	1	1.53	1	92	463	0.002	92.00	0.20	1.000	0.99999
4475	1	0.43	14	371	14	1.000	26.50	26.50	1.000	0.99941
4476	1	0.67	31	1,256	31	1.000	40.52	40.52	1.000	0.99909
4511	2	1.11	2	67	1,130	0.002	33.50	0.06	1.000	0.99999
4601	5	7.75	274	48,689	422	0.649	177.70	115.38	1.038	0.99742
4602	1	1.48	10	891	952	0.011	89.10	0.94	1.000	0.99998
4692	3	7.39	433	10,862	475	0.912	25.09	22.87	1.041	0.99949
4712	2	4.11	2	247	59	0.034	123.50	4.19	1.000	0.99991

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
5601	1	0.75	15	684	1,317	0.011	45.60	0.52	1.000	0.99999
5602	1	0.85	1	51	681	0.001	51.00	0.07	1.000	0.99999
5603	3	11.33	54	5,443	1,294	0.042	100.80	4.21	1.000	0.99991
5902	3	3.22	39	1,493	945	0.041	38.28	1.58	1.000	0.99996
5904	4	15.57	153	23,939	1,232	0.124	156.46	19.43	1.055	0.99956
5905	2	6.41	106	18,638	1,876	0.057	175.83	9.93	1.000	0.99978
6021	2	3.84	26	3,255	1,316	0.020	125.19	2.47	1.000	0.99994
6024	1	1.65	12	1,194	395	0.030	99.50	3.02	1.000	0.99993
6141	7	17.15	67	8,002	634	0.106	119.43	12.62	1.196	0.99972
6142	1	0.87	6	317	312	0.019	52.83	1.02	1.000	0.99998
6144	1	2.78	16	2,682	324	0.049	167.63	8.28	1.000	0.99981
	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUSTOMERS SERVED	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
Total:	375	695.10	30,715	3,239,744	166,173	0.185	105.48	19.50	1.056	0.99956

THE EMPIRE DISTRICT ELECTRIC COMPANY
CUSTOMER OUTAGE STATISTICS AND INDICES FOR MISSOURI
8/1/2018 to 8/31/2018
EXCLUDING MAJOR EVENT DAYS

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1050	3	1.69	8	311	1,636	0.005	38.88	0.19	1.000	0.99999
1082	5	10.47	1,267	101,189	1,344	0.943	79.87	75.29	1.003	0.99831
1092	15	30.70	118	12,564	976	0.121	106.47	12.87	1.054	0.99971
1093	3	11.19	31	5,047	238	0.130	162.81	21.21	1.069	0.99952
1094	3	8.28	23	5,514	1,231	0.019	239.74	4.48	1.000	0.99990
1102	1	0.70	3	127	780	0.004	42.33	0.16	1.000	0.99999
1103	1	0.57	21	719	978	0.021	34.24	0.74	1.000	0.99998
1141	3	2.30	30	2,012	902	0.033	67.07	2.23	1.071	0.99995
1142	1	2.62	199	31,262	214	0.930	157.10	146.08	1.000	0.99673
1211	4	9.17	18	4,419	1,484	0.012	245.50	2.98	1.000	0.99993
1232	4	4.78	235	18,741	1,178	0.199	79.75	15.91	1.004	0.99964
1241	2	6.14	109	34,214	870	0.125	313.89	39.33	1.009	0.99912
1242	1	0.52	22	702	858	0.026	31.91	0.82	1.000	0.99998
1243	5	23.86	1,219	335,628	1,216	1.002	275.33	276.01	1.325	0.99382
1261	1	2.13	397	51,186	397	1.000	128.93	128.93	1.000	0.99711
1262	1	1.48	160	14,381	159	1.006	89.88	90.45	1.000	0.99797
1263	2	4.52	1,165	171,150	1,148	1.015	146.91	149.09	1.017	0.99666

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1264	3	3.42	20	2,617	18	1.111	130.85	145.39	1.111	0.99674
1265	4	9.68	1,331	140,969	1,286	1.035	105.91	109.62	1.035	0.99754
1267	1	2.12	82	10,485	82	1.000	127.87	127.87	1.000	0.99714
1271	3	5.67	17	2,514	967	0.018	147.88	2.60	1.063	0.99994
1273	6	15.03	81	23,197	865	0.094	286.38	26.82	1.000	0.99940
1284	5	12.59	48	12,934	950	0.051	269.46	13.61	1.263	0.99970
1285	1	2.10	1,096	138,424	1,096	1.000	126.30	126.30	1.000	0.99717
1312	1	1.18	10	719	940	0.011	71.90	0.76	1.000	0.99998
1451	1	0.87	28	1,467	531	0.053	52.39	2.76	1.000	0.99994
1452	4	3.92	4	235	452	0.009	58.75	0.52	1.000	0.99999
1453	2	1.95	11	912	1,800	0.006	82.91	0.51	1.000	0.99999
1521	1	1.25	1	75	369	0.003	75.00	0.20	1.000	0.99999
1842	6	7.45	20	1,652	282	0.071	82.60	5.86	1.000	0.99987
1843	2	1.78	27	1,519	1,082	0.025	56.26	1.40	1.038	0.99997
2051	2	1.85	10	598	166	0.060	59.80	3.60	1.000	0.99992
2052	1	0.43	1	26	85	0.012	26.00	0.31	1.000	0.99999
2091	1	2.93	1	176	886	0.001	176.00	0.20	1.000	0.99999
2092	1	1.47	2	176	924	0.002	88.00	0.19	1.000	0.99999
2211	3	3.31	57	4,115	726	0.079	72.19	5.67	1.000	0.99987
2212	4	10.39	25	3,729	1,298	0.019	149.16	2.87	1.087	0.99994
2501	2	3.75	80	12,820	84	0.952	160.25	152.62	1.013	0.99658
2511	3	5.70	25	2,281	620	0.040	91.24	3.68	1.000	0.99992

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
2621	4	8.07	4	484	1,176	0.003	121.00	0.41	1.000	0.99999
2921	2	2.00	750	45,424	375	2.000	60.57	121.13	2.000	0.99729
2951	1	1.03	1	62	1,404	0.001	62.00	0.04	1.000	0.99999
2952	1	1.70	1	102	159	0.006	102.00	0.64	1.000	0.99999
3041	1	0.18	81	897	81	1.000	11.07	11.07	1.000	0.99975
3081	1	0.25	576	9,168	576	1.000	15.92	15.92	1.000	0.99964
3082	1	0.27	322	5,463	322	1.000	16.97	16.97	1.000	0.99962
3122	3	18.27	55	16,890	854	0.064	307.09	19.78	1.279	0.99956
3123	2	2.83	2	170	1,065	0.002	85.00	0.16	1.000	0.99999
3181	2	1.98	736	7,313	732	1.005	9.94	9.99	1.001	0.99978
3222	1	0.93	1	56	774	0.001	56.00	0.07	1.000	0.99999
3232	1	0.13	429	3,789	429	1.000	8.83	8.83	1.000	0.99980
3301	2	2.95	782	54,739	743	1.052	70.00	73.67	1.055	0.99835
3303	11	10.40	69	4,056	966	0.071	58.78	4.20	1.000	0.99991
3304	6	10.01	77	8,873	1,076	0.072	115.23	8.25	1.055	0.99982
3311	1	1.18	40	2,808	535	0.075	70.20	5.25	1.000	0.99988
3315	2	2.87	18	1,369	1,584	0.011	76.06	0.86	1.000	0.99998
3421	1	0.57	14	486	296	0.047	34.71	1.64	1.000	0.99996
3422	2	2.08	20	1,288	978	0.020	64.40	1.32	1.000	0.99997
3471	1	1.07	1	64	470	0.002	64.00	0.14	1.000	0.99999
3472	2	5.47	6	1,331	1,285	0.005	221.83	1.04	1.000	0.99998
3552	2	3.60	8	961	576	0.014	120.13	1.67	1.000	0.99996

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
3553	6	15.01	897	93,588	874	1.026	104.33	107.08	1.048	0.99760
3591	3	11.28	99	15,003	1,239	0.080	151.55	12.11	1.000	0.99973
3592	3	9.25	32	5,017	1,750	0.018	156.78	2.87	1.032	0.99994
3594	5	8.26	61	5,768	688	0.089	94.56	8.38	1.017	0.99981
3621	1	0.97	1	58	1,557	0.001	58.00	0.04	1.000	0.99999
3661	4	15.82	99	30,669	1,031	0.096	309.79	29.75	1.000	0.99933
3663	3	3.66	3	220	747	0.004	73.33	0.29	1.000	0.99999
3664	5	5.03	155	9,140	554	0.280	58.97	16.50	1.026	0.99963
3671	3	2.01	556	37,089	504	1.103	66.71	73.59	1.103	0.99835
3672	1	1.23	130	9,673	137	0.949	74.41	70.61	1.000	0.99842
3691	3	9.21	62	14,042	1,164	0.053	226.48	12.06	1.016	0.99973
3692	1	2.10	31	3,906	410	0.076	126.00	9.53	1.000	0.99979
3694	4	5.17	12	1,063	1,348	0.009	88.58	0.79	1.714	0.99998
3702	1	1.10	55	3,637	612	0.090	66.13	5.94	1.000	0.99987
3751	3	4.86	48	3,829	888	0.054	79.77	4.31	1.021	0.99990
3872	2	1.93	21	1,176	1,068	0.020	56.00	1.10	1.615	0.99998
3873	1	0.93	1	56	801	0.001	56.00	0.07	1.000	0.99999
3878	1	1.33	791	64,057	798	0.991	80.98	80.27	1.000	0.99820
3891	1	1.52	4	366	444	0.009	91.50	0.82	1.000	0.99998
3893	3	5.31	21	3,449	1,124	0.019	164.24	3.07	1.050	0.99993
3901	1	1.00	4	240	882	0.005	60.00	0.27	1.000	0.99999
3912	3	5.75	430	8,396	1,181	0.364	19.53	7.11	1.059	0.99984

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
3913	1	0.78	17	799	820	0.021	47.00	0.97	1.000	0.99998
3914	2	2.10	95	3,210	376	0.253	33.79	8.54	1.000	0.99981
3951	1	2.57	34	5,254	931	0.037	154.53	5.64	1.000	0.99987
3952	5	6.03	21	1,230	1,274	0.016	58.57	0.97	1.000	0.99998
3981	5	4.05	36	1,564	1,506	0.024	43.44	1.04	1.029	0.99998
3982	3	9.25	3	555	1,772	0.002	185.00	0.31	1.000	0.99999
3991	3	5.45	732	90,794	733	0.999	124.04	123.87	1.003	0.99723
403	1	3.38	4	814	267	0.015	203.50	3.05	1.000	0.99993
4031	1	5.30	17	5,409	708	0.024	318.18	7.64	1.000	0.99983
4091	3	5.29	36	6,902	1,151	0.031	191.72	6.00	1.029	0.99987
4092	6	9.83	25	916	436	0.057	36.64	2.10	1.000	0.99995
4137	1	2.75	1	165	798	0.001	165.00	0.21	1.000	0.99999
4138	1	1.90	1	114	748	0.001	114.00	0.15	1.000	0.99999
4141	3	4.35	90	8,327	82	1.098	92.52	101.55	1.000	0.99773
4152	3	4.22	1,264	91,139	241	5.245	72.10	378.17	1.013	0.99153
4154	3	15.87	116	32,362	1,219	0.095	278.98	26.55	1.018	0.99941
4155	3	7.33	1,817	170,554	2,155	0.843	93.87	79.14	1.224	0.99823
4172	8	14.48	1,755	93,564	1,729	1.015	53.31	54.11	1.014	0.99879
4173	1	1.50	14	1,260	638	0.022	90.00	1.97	1.000	0.99996
4212	4	4.93	114	9,214	820	0.139	80.82	11.24	1.009	0.99975
4222	3	2.49	1,049	104,523	1,046	1.003	99.64	99.93	1.005	0.99776
4223	3	9.62	1,056	177,717	954	1.107	168.29	186.29	1.076	0.99583

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
4224	4	9.32	789	83,454	758	1.041	105.77	110.10	1.041	0.99753
4302	1	5.37	16	5,163	652	0.025	322.69	7.92	1.000	0.99982
4303	5	8.77	40	9,358	1,026	0.039	233.95	9.12	1.053	0.99980
4324	1	0.80	1	48	955	0.001	48.00	0.05	1.000	0.99999
4331	1	2.67	122	19,544	316	0.386	160.20	61.85	1.000	0.99861
4341	7	5.92	49	2,203	1,823	0.027	44.96	1.21	1.089	0.99997
4343	2	1.64	123	5,611	1,034	0.119	45.62	5.43	1.000	0.99988
4361	1	0.95	49	2,834	1,603	0.031	57.84	1.77	1.000	0.99996
4362	1	0.95	51	2,929	827	0.062	57.43	3.54	1.000	0.99992
4363	7	9.93	1,461	140,644	1,420	1.029	96.27	99.05	1.030	0.99778
4371	8	10.91	1,593	220,885	1,538	1.036	138.66	143.62	1.039	0.99678
4372	5	5.39	510	67,593	446	1.143	132.54	151.55	1.143	0.99660
4373	3	5.72	787	113,448	787	1.000	144.15	144.15	1.003	0.99677
4431	3	3.87	57	4,430	1,392	0.041	77.72	3.18	1.000	0.99993
4432	1	1.53	1	92	463	0.002	92.00	0.20	1.000	0.99999
4475	1	0.43	14	371	14	1.000	26.50	26.50	1.000	0.99941
4476	1	0.67	31	1,256	31	1.000	40.52	40.52	1.000	0.99909
4511	2	1.11	2	67	1,130	0.002	33.50	0.06	1.000	0.99999
4601	5	7.75	274	48,689	422	0.649	177.70	115.38	1.038	0.99742
4602	1	1.48	10	891	952	0.011	89.10	0.94	1.000	0.99998
4692	3	7.39	433	10,862	475	0.912	25.09	22.87	1.041	0.99949
4712	2	4.11	2	247	59	0.034	123.50	4.19	1.000	0.99991

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
5601	1	0.75	15	684	1,317	0.011	45.60	0.52	1.000	0.99999
5602	1	0.85	1	51	681	0.001	51.00	0.07	1.000	0.99999
5603	3	11.33	54	5,443	1,294	0.042	100.80	4.21	1.000	0.99991
5902	3	3.22	39	1,493	945	0.041	38.28	1.58	1.000	0.99996
5904	4	15.57	153	23,939	1,232	0.124	156.46	19.43	1.055	0.99956
5905	2	6.41	106	18,638	1,876	0.057	175.83	9.93	1.000	0.99978
6021	2	3.84	26	3,255	1,316	0.020	125.19	2.47	1.000	0.99994
6024	1	1.65	12	1,194	395	0.030	99.50	3.02	1.000	0.99993
6141	7	17.15	67	8,002	634	0.106	119.43	12.62	1.196	0.99972
6142	1	0.87	6	317	312	0.019	52.83	1.02	1.000	0.99998
6144	1	2.78	16	2,682	324	0.049	167.63	8.28	1.000	0.99981
	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUSTOMERS SERVED	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
Total:	375	695.10	30,715	3,239,744	166,173	0.185	105.48	19.50	1.056	0.99956

THE EMPIRE DISTRICT ELECTRIC COMPANY
CUSTOMER OUTAGE STATISTICS AND INDICES FOR MISSOURI
9/1/2018 to 9/30/2018
INCLUDING MAJOR EVENT DAYS

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1050	3	6.47	170	12,847	1,660	0.102	75.57	7.74	1.006	0.99982
1051	4	2.77	90	4,155	767	0.117	46.17	5.42	1.023	0.99987
1082	6	10.09	64	9,709	1,347	0.048	151.70	7.21	1.049	0.99983
1092	2	2.27	2	136	977	0.002	68.00	0.14	1.000	0.99999
1102	2	1.65	27	1,413	808	0.033	52.33	1.75	1.000	0.99996
1103	2	2.90	98	7,846	978	0.100	80.06	8.02	1.010	0.99981
1141	1	1.02	2	122	902	0.002	61.00	0.14	1.000	0.99999
1211	1	2.05	1	123	1,487	0.001	123.00	0.08	1.000	0.99999
1212	1	2.48	1	149	333	0.003	149.00	0.45	1.000	0.99999
1230	1	0.23	1	14	1,188	0.001	14.00	0.01	1.000	0.99999
1241	2	5.44	21	2,779	872	0.024	132.33	3.19	1.050	0.99993
1267	1	1.18	1	71	82	0.012	71.00	0.87	1.000	0.99998
1282	1	0.90	6	324	692	0.009	54.00	0.47	1.000	0.99999
1312	1	1.00	20	1,201	941	0.021	60.05	1.28	1.000	0.99997
1452	1	1.85	1	111	452	0.002	111.00	0.25	1.000	0.99999
1453	7	12.50	164	12,379	1,801	0.091	75.48	6.87	1.045	0.99984
1454	2	2.08	2	125	933	0.002	62.50	0.13	1.000	0.99999

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1523	1	1.15	1	69	740	0.001	69.00	0.09	1.000	0.99999
1841	1	1.27	4	304	529	0.008	76.00	0.57	1.000	0.99999
1843	2	5.08	9	1,983	1,086	0.008	220.33	1.83	1.000	0.99996
2052	1	1.52	1	91	85	0.012	91.00	1.07	1.000	0.99998
2171	3	2.70	11	541	568	0.019	49.18	0.95	1.000	0.99998
2212	1	3.12	1	187	1,302	0.001	187.00	0.14	1.000	0.99999
2511	5	5.04	5	302	620	0.008	60.40	0.49	1.000	0.99999
2621	3	8.12	3	487	1,180	0.003	162.33	0.41	1.000	0.99999
2951	3	4.32	3	259	1,407	0.002	86.33	0.18	1.000	0.99999
2952	1	0.92	26	1,436	160	0.163	55.23	8.98	1.000	0.99979
2961	3	15.08	88	35,692	647	0.136	405.59	55.17	1.000	0.99872
3122	1	1.63	1	98	856	0.001	98.00	0.11	1.000	0.99999
3123	1	1.42	1	85	1,069	0.001	85.00	0.08	1.000	0.99999
3221	2	7.58	16	3,645	1,256	0.013	227.81	2.90	1.143	0.99993
3222	3	3.44	33	2,038	775	0.043	61.76	2.63	1.031	0.99994
3301	1	1.65	1	99	744	0.001	99.00	0.13	1.000	0.99999
3303	3	4.07	46	2,554	960	0.048	55.52	2.66	1.000	0.99994
3304	2	5.01	17	3,985	1,078	0.016	234.41	3.70	1.063	0.99991
3311	6	7.79	294	25,026	535	0.550	85.12	46.78	1.307	0.99892
3315	1	0.60	31	1,126	1,586	0.020	36.32	0.71	1.000	0.99998
3421	2	6.08	2	365	296	0.007	182.50	1.23	1.000	0.99997
3422	4	4.32	53	2,028	980	0.054	38.26	2.07	1.000	0.99995

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
3423	1	1.32	1	79	389	0.003	79.00	0.20	1.000	0.99999
3471	3	2.81	5	270	468	0.011	54.00	0.58	1.000	0.99999
3551	1	0.30	1	18	1,033	0.001	18.00	0.02	1.000	0.99999
3552	2	1.26	2	76	576	0.003	38.00	0.13	1.000	0.99999
3553	1	0.47	860	24,596	875	0.983	28.60	28.11	1.000	0.99935
3591	1	0.75	16	731	1,256	0.013	45.69	0.58	1.000	0.99999
3592	8	14.43	244	25,781	1,754	0.139	105.66	14.70	1.080	0.99966
3593	2	4.31	79	12,523	943	0.084	158.52	13.28	1.000	0.99969
3621	1	0.95	19	1,088	1,562	0.012	57.26	0.70	1.000	0.99998
3661	4	2.85	63	3,213	1,032	0.061	51.00	3.11	1.033	0.99993
3662	3	2.01	26	1,224	790	0.033	47.08	1.55	1.000	0.99996
3663	3	3.80	15	851	746	0.020	56.73	1.14	1.154	0.99997
3691	1	0.67	19	761	1,166	0.016	40.05	0.65	1.000	0.99998
3692	1	4.42	99	26,169	410	0.241	264.33	63.83	1.000	0.99852
3694	3	5.84	3	350	1,360	0.002	116.67	0.26	1.000	0.99999
3701	1	0.43	1	26	495	0.002	26.00	0.05	1.000	0.99999
3702	1	0.75	1	45	613	0.002	45.00	0.07	1.000	0.99999
3751	2	3.95	9	833	890	0.010	92.56	0.94	1.000	0.99998
3873	2	3.54	127	17,288	804	0.158	136.13	21.50	1.000	0.99950
3891	1	0.67	13	529	430	0.030	40.69	1.23	1.000	0.99997
3892	1	1.03	6	376	507	0.012	62.67	0.74	1.000	0.99998
3893	1	0.88	1	53	1,124	0.001	53.00	0.05	1.000	0.99999

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
3901	1	0.83	1	50	885	0.001	50.00	0.06	1.000	0.99999
3903	1	1.08	28	1,834	301	0.093	65.50	6.09	1.000	0.99986
3913	2	4.03	137	19,527	822	0.167	142.53	23.76	1.000	0.99945
3951	4	4.97	62	6,872	931	0.067	110.84	7.38	1.016	0.99983
3952	3	3.70	43	2,168	1,278	0.034	50.42	1.70	1.000	0.99996
3971	2	2.17	2	130	667	0.003	65.00	0.19	2.000	0.99999
3981	11	21.33	1,659	182,445	1,509	1.099	109.97	120.90	1.105	0.99720
3982	3	2.48	75	3,323	1,773	0.042	44.31	1.87	1.000	0.99996
3991	1	0.92	27	1,472	735	0.037	54.52	2.00	1.000	0.99995
3992	1	2.05	167	20,621	168	0.994	123.48	122.74	1.000	0.99716
403	1	1.77	1	106	267	0.004	106.00	0.40	1.000	0.99999
4031	2	3.16	6	630	708	0.008	105.00	0.89	1.000	0.99998
4092	1	5.22	95	29,807	437	0.217	313.76	68.21	1.000	0.99842
4101	1	2.35	1	141	964	0.001	141.00	0.15	1.000	0.99999
4134	2	3.77	5	563	1,234	0.004	112.60	0.46	1.000	0.99999
4138	1	0.53	1	32	749	0.001	32.00	0.04	1.000	0.99999
4141	2	1.65	2	99	82	0.024	49.50	1.21	1.000	0.99997
4155	1	0.92	18	993	2,158	0.008	55.17	0.46	1.000	0.99999
4171	2	4.60	29	2,447	681	0.043	84.38	3.59	1.036	0.99992
4172	4	6.36	53	9,932	1,731	0.031	187.40	5.74	1.039	0.99987
4173	3	5.58	17	1,934	639	0.027	113.76	3.03	1.214	0.99993
4222	2	3.59	21	2,012	1,046	0.020	95.81	1.92	1.000	0.99996

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
4224	1	1.08	12	787	758	0.016	65.58	1.04	1.000	0.99998
4303	3	3.42	5	310	1,051	0.005	62.00	0.29	1.000	0.99999
4311	1	1.63	34	3,336	861	0.039	98.12	3.87	1.000	0.99991
4312	1	1.60	33	3,191	852	0.039	96.70	3.75	1.000	0.99991
4324	1	5.42	35	11,398	648	0.054	325.66	17.59	1.000	0.99959
4341	7	9.08	26	2,509	1,825	0.014	96.50	1.37	1.040	0.99997
4343	1	0.98	1	59	1,034	0.001	59.00	0.06	1.000	0.99999
4361	3	4.13	116	5,434	1,604	0.072	46.84	3.39	1.000	0.99992
4363	3	8.22	14	4,272	1,421	0.010	305.14	3.01	1.077	0.99993
4371	2	2.32	30	1,567	1,540	0.019	52.23	1.02	1.000	0.99998
4372	1	6.12	51	18,717	448	0.114	367.00	41.78	1.000	0.99903
4373	1	2.10	1	126	791	0.001	126.00	0.16	1.000	0.99999
4385	1	0.58	19	668	1,123	0.017	35.16	0.59	1.000	0.99999
4431	6	6.07	13	639	1,394	0.009	49.15	0.46	1.000	0.99999
4432	1	0.93	1	56	464	0.002	56.00	0.12	1.000	0.99999
4511	1	1.53	1,122	103,485	1,124	0.998	92.23	92.07	1.000	0.99787
4512	1	1.55	1	93	1,026	0.001	93.00	0.09	1.000	0.99999
4602	1	0.92	160	8,805	954	0.168	55.03	9.23	1.000	0.99979
4692	4	4.13	28	1,992	475	0.059	71.14	4.19	1.037	0.99990
4714	2	1.25	37	1,570	328	0.113	42.43	4.79	1.028	0.99989
5601	5	5.75	49	3,513	1,330	0.037	71.69	2.64	1.021	0.99994
5602	1	1.80	1	108	681	0.001	108.00	0.16	1.000	0.99999

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
5603	4	5.05	54	4,750	1,298	0.042	87.96	3.66	1.000	0.99992
5641	1	0.47	1	28	322	0.003	28.00	0.09	1.000	0.99999
5902	3	4.52	55	4,222	945	0.058	76.76	4.47	1.038	0.99990
5904	1	3.67	9	1,987	1,233	0.007	220.78	1.61	1.000	0.99996
5905	2	1.67	1,912	122,442	1,876	1.019	64.04	65.27	1.020	0.99849
6022	1	3.75	1	225	491	0.002	225.00	0.46	1.000	0.99999
6024	1	1.02	9	551	395	0.023	61.22	1.39	1.000	0.99997
6141	1	2.58	1	155	634	0.002	155.00	0.24	1.000	0.99999
	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUSTOMERS SERVED	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
Total:	245	382.63	9,209	846,917	166,585	0.055	91.97	5.08	1.035	0.99988

THE EMPIRE DISTRICT ELECTRIC COMPANY
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CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1050	3	6.47	170	12,847	1,660	0.102	75.57	7.74	1.006	0.99982
1051	4	2.77	90	4,155	767	0.117	46.17	5.42	1.023	0.99987
1082	6	10.09	64	9,709	1,347	0.048	151.70	7.21	1.049	0.99983
1092	2	2.27	2	136	977	0.002	68.00	0.14	1.000	0.99999
1102	2	1.65	27	1,413	808	0.033	52.33	1.75	1.000	0.99996
1103	2	2.90	98	7,846	978	0.100	80.06	8.02	1.010	0.99981
1141	1	1.02	2	122	902	0.002	61.00	0.14	1.000	0.99999
1211	1	2.05	1	123	1,487	0.001	123.00	0.08	1.000	0.99999
1212	1	2.48	1	149	333	0.003	149.00	0.45	1.000	0.99999
1230	1	0.23	1	14	1,188	0.001	14.00	0.01	1.000	0.99999
1241	2	5.44	21	2,779	872	0.024	132.33	3.19	1.050	0.99993
1267	1	1.18	1	71	82	0.012	71.00	0.87	1.000	0.99998
1282	1	0.90	6	324	692	0.009	54.00	0.47	1.000	0.99999
1312	1	1.00	20	1,201	941	0.021	60.05	1.28	1.000	0.99997
1452	1	1.85	1	111	452	0.002	111.00	0.25	1.000	0.99999
1453	7	12.50	164	12,379	1,801	0.091	75.48	6.87	1.045	0.99984
1454	2	2.08	2	125	933	0.002	62.50	0.13	1.000	0.99999

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1523	1	1.15	1	69	740	0.001	69.00	0.09	1.000	0.99999
1841	1	1.27	4	304	529	0.008	76.00	0.57	1.000	0.99999
1843	2	5.08	9	1,983	1,086	0.008	220.33	1.83	1.000	0.99996
2052	1	1.52	1	91	85	0.012	91.00	1.07	1.000	0.99998
2171	3	2.70	11	541	568	0.019	49.18	0.95	1.000	0.99998
2212	1	3.12	1	187	1,302	0.001	187.00	0.14	1.000	0.99999
2511	5	5.04	5	302	620	0.008	60.40	0.49	1.000	0.99999
2621	3	8.12	3	487	1,180	0.003	162.33	0.41	1.000	0.99999
2951	3	4.32	3	259	1,407	0.002	86.33	0.18	1.000	0.99999
2952	1	0.92	26	1,436	160	0.163	55.23	8.98	1.000	0.99979
2961	3	15.08	88	35,692	647	0.136	405.59	55.17	1.000	0.99872
3122	1	1.63	1	98	856	0.001	98.00	0.11	1.000	0.99999
3123	1	1.42	1	85	1,069	0.001	85.00	0.08	1.000	0.99999
3221	2	7.58	16	3,645	1,256	0.013	227.81	2.90	1.143	0.99993
3222	3	3.44	33	2,038	775	0.043	61.76	2.63	1.031	0.99994
3301	1	1.65	1	99	744	0.001	99.00	0.13	1.000	0.99999
3303	3	4.07	46	2,554	960	0.048	55.52	2.66	1.000	0.99994
3304	2	5.01	17	3,985	1,078	0.016	234.41	3.70	1.063	0.99991
3311	6	7.79	294	25,026	535	0.550	85.12	46.78	1.307	0.99892
3315	1	0.60	31	1,126	1,586	0.020	36.32	0.71	1.000	0.99998
3421	2	6.08	2	365	296	0.007	182.50	1.23	1.000	0.99997
3422	4	4.32	53	2,028	980	0.054	38.26	2.07	1.000	0.99995

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
3423	1	1.32	1	79	389	0.003	79.00	0.20	1.000	0.99999
3471	3	2.81	5	270	468	0.011	54.00	0.58	1.000	0.99999
3551	1	0.30	1	18	1,033	0.001	18.00	0.02	1.000	0.99999
3552	2	1.26	2	76	576	0.003	38.00	0.13	1.000	0.99999
3553	1	0.47	860	24,596	875	0.983	28.60	28.11	1.000	0.99935
3591	1	0.75	16	731	1,256	0.013	45.69	0.58	1.000	0.99999
3592	8	14.43	244	25,781	1,754	0.139	105.66	14.70	1.080	0.99966
3593	2	4.31	79	12,523	943	0.084	158.52	13.28	1.000	0.99969
3621	1	0.95	19	1,088	1,562	0.012	57.26	0.70	1.000	0.99998
3661	4	2.85	63	3,213	1,032	0.061	51.00	3.11	1.033	0.99993
3662	3	2.01	26	1,224	790	0.033	47.08	1.55	1.000	0.99996
3663	3	3.80	15	851	746	0.020	56.73	1.14	1.154	0.99997
3691	1	0.67	19	761	1,166	0.016	40.05	0.65	1.000	0.99998
3692	1	4.42	99	26,169	410	0.241	264.33	63.83	1.000	0.99852
3694	3	5.84	3	350	1,360	0.002	116.67	0.26	1.000	0.99999
3701	1	0.43	1	26	495	0.002	26.00	0.05	1.000	0.99999
3702	1	0.75	1	45	613	0.002	45.00	0.07	1.000	0.99999
3751	2	3.95	9	833	890	0.010	92.56	0.94	1.000	0.99998
3873	2	3.54	127	17,288	804	0.158	136.13	21.50	1.000	0.99950
3891	1	0.67	13	529	430	0.030	40.69	1.23	1.000	0.99997
3892	1	1.03	6	376	507	0.012	62.67	0.74	1.000	0.99998
3893	1	0.88	1	53	1,124	0.001	53.00	0.05	1.000	0.99999

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
3901	1	0.83	1	50	885	0.001	50.00	0.06	1.000	0.99999
3903	1	1.08	28	1,834	301	0.093	65.50	6.09	1.000	0.99986
3913	2	4.03	137	19,527	822	0.167	142.53	23.76	1.000	0.99945
3951	4	4.97	62	6,872	931	0.067	110.84	7.38	1.016	0.99983
3952	3	3.70	43	2,168	1,278	0.034	50.42	1.70	1.000	0.99996
3971	2	2.17	2	130	667	0.003	65.00	0.19	2.000	0.99999
3981	11	21.33	1,659	182,445	1,509	1.099	109.97	120.90	1.105	0.99720
3982	3	2.48	75	3,323	1,773	0.042	44.31	1.87	1.000	0.99996
3991	1	0.92	27	1,472	735	0.037	54.52	2.00	1.000	0.99995
3992	1	2.05	167	20,621	168	0.994	123.48	122.74	1.000	0.99716
403	1	1.77	1	106	267	0.004	106.00	0.40	1.000	0.99999
4031	2	3.16	6	630	708	0.008	105.00	0.89	1.000	0.99998
4092	1	5.22	95	29,807	437	0.217	313.76	68.21	1.000	0.99842
4101	1	2.35	1	141	964	0.001	141.00	0.15	1.000	0.99999
4134	2	3.77	5	563	1,234	0.004	112.60	0.46	1.000	0.99999
4138	1	0.53	1	32	749	0.001	32.00	0.04	1.000	0.99999
4141	2	1.65	2	99	82	0.024	49.50	1.21	1.000	0.99997
4155	1	0.92	18	993	2,158	0.008	55.17	0.46	1.000	0.99999
4171	2	4.60	29	2,447	681	0.043	84.38	3.59	1.036	0.99992
4172	4	6.36	53	9,932	1,731	0.031	187.40	5.74	1.039	0.99987
4173	3	5.58	17	1,934	639	0.027	113.76	3.03	1.214	0.99993
4222	2	3.59	21	2,012	1,046	0.020	95.81	1.92	1.000	0.99996

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
4224	1	1.08	12	787	758	0.016	65.58	1.04	1.000	0.99998
4303	3	3.42	5	310	1,051	0.005	62.00	0.29	1.000	0.99999
4311	1	1.63	34	3,336	861	0.039	98.12	3.87	1.000	0.99991
4312	1	1.60	33	3,191	852	0.039	96.70	3.75	1.000	0.99991
4324	1	5.42	35	11,398	648	0.054	325.66	17.59	1.000	0.99959
4341	7	9.08	26	2,509	1,825	0.014	96.50	1.37	1.040	0.99997
4343	1	0.98	1	59	1,034	0.001	59.00	0.06	1.000	0.99999
4361	3	4.13	116	5,434	1,604	0.072	46.84	3.39	1.000	0.99992
4363	3	8.22	14	4,272	1,421	0.010	305.14	3.01	1.077	0.99993
4371	2	2.32	30	1,567	1,540	0.019	52.23	1.02	1.000	0.99998
4372	1	6.12	51	18,717	448	0.114	367.00	41.78	1.000	0.99903
4373	1	2.10	1	126	791	0.001	126.00	0.16	1.000	0.99999
4385	1	0.58	19	668	1,123	0.017	35.16	0.59	1.000	0.99999
4431	6	6.07	13	639	1,394	0.009	49.15	0.46	1.000	0.99999
4432	1	0.93	1	56	464	0.002	56.00	0.12	1.000	0.99999
4511	1	1.53	1,122	103,485	1,124	0.998	92.23	92.07	1.000	0.99787
4512	1	1.55	1	93	1,026	0.001	93.00	0.09	1.000	0.99999
4602	1	0.92	160	8,805	954	0.168	55.03	9.23	1.000	0.99979
4692	4	4.13	28	1,992	475	0.059	71.14	4.19	1.037	0.99990
4714	2	1.25	37	1,570	328	0.113	42.43	4.79	1.028	0.99989
5601	5	5.75	49	3,513	1,330	0.037	71.69	2.64	1.021	0.99994
5602	1	1.80	1	108	681	0.001	108.00	0.16	1.000	0.99999

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
5603	4	5.05	54	4,750	1,298	0.042	87.96	3.66	1.000	0.99992
5641	1	0.47	1	28	322	0.003	28.00	0.09	1.000	0.99999
5902	3	4.52	55	4,222	945	0.058	76.76	4.47	1.038	0.99990
5904	1	3.67	9	1,987	1,233	0.007	220.78	1.61	1.000	0.99996
5905	2	1.67	1,912	122,442	1,876	1.019	64.04	65.27	1.020	0.99849
6022	1	3.75	1	225	491	0.002	225.00	0.46	1.000	0.99999
6024	1	1.02	9	551	395	0.023	61.22	1.39	1.000	0.99997
6141	1	2.58	1	155	634	0.002	155.00	0.24	1.000	0.99999
	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUSTOMERS SERVED	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
Total:	245	382.63	9,209	846,917	166,585	0.055	91.97	5.08	1.035	0.99988

THE EMPIRE DISTRICT ELECTRIC COMPANY
CUSTOMER OUTAGE STATISTICS AND INDICES FOR MISSOURI
10/1/2018 to 10/31/2018
INCLUDING MAJOR EVENT DAYS

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1050	1	1.00	1	60	1,605	0.001	60.00	0.04	1.000	0.99999
1082	1	1.55	1	93	1,347	0.001	93.00	0.07	1.000	0.99999
1091	4	7.04	1,384	227,110	694	1.994	164.10	327.25	1.994	0.99267
1092	6	7.85	142	10,952	977	0.145	77.13	11.21	1.000	0.99975
1093	1	1.02	28	1,724	238	0.118	61.57	7.24	1.000	0.99984
1094	3	3.66	95	6,586	1,230	0.077	69.33	5.35	1.000	0.99988
1211	2	6.10	14	1,555	1,487	0.009	111.07	1.05	1.000	0.99998
1232	1	0.92	1	55	1,179	0.001	55.00	0.05	1.000	0.99999
1241	3	9.56	59	8,209	872	0.068	139.14	9.41	1.204	0.99979
1242	6	135.02	26	20,285	859	0.030	780.19	23.61	1.000	0.99947
1243	3	1.69	16	790	1,220	0.013	49.38	0.65	1.000	0.99999
1261	1	1.78	5	537	397	0.013	107.40	1.35	1.000	0.99997
1263	1	0.73	16	719	1,149	0.014	44.94	0.63	1.000	0.99999
1271	1	1.78	1	107	968	0.001	107.00	0.11	1.000	0.99999
1284	2	4.45	41	2,441	950	0.043	59.54	2.57	1.000	0.99994
1285	3	7.19	113	8,232	1,097	0.103	72.85	7.50	1.000	0.99983
1311	4	2.80	4	168	277	0.014	42.00	0.61	1.000	0.99999

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1312	4	5.84	8	734	941	0.009	91.75	0.78	1.600	0.99998
1454	3	5.01	50	6,210	932	0.054	124.20	6.66	1.000	0.99985
1523	1	0.98	26	1,543	740	0.035	59.35	2.09	1.000	0.99995
1841	1	1.27	1	76	529	0.002	76.00	0.14	1.000	0.99999
1843	1	1.03	12	750	1,086	0.011	62.50	0.69	1.000	0.99998
2171	1	1.18	1	71	568	0.002	71.00	0.13	1.000	0.99999
2212	1	0.95	1	57	1,302	0.001	57.00	0.04	1.000	0.99999
2491	1	2.42	16	2,329	63	0.254	145.56	36.97	1.000	0.99917
2621	1	1.28	1	77	1,180	0.001	77.00	0.07	1.000	0.99999
2951	1	1.13	46	3,131	1,407	0.033	68.07	2.23	1.000	0.99995
2961	2	5.88	49	8,526	647	0.076	174.00	13.18	1.000	0.99970
3122	2	5.55	13	2,216	856	0.015	170.46	2.59	1.000	0.99994
3221	3	6.38	22	2,936	1,256	0.018	133.45	2.34	1.048	0.99995
3222	3	3.60	9	646	775	0.012	71.78	0.83	1.000	0.99998
3231	1	1.67	4	402	204	0.020	100.50	1.97	1.000	0.99996
3302	1	0.83	1	50	907	0.001	50.00	0.06	1.000	0.99999
3303	5	3.60	137	6,718	960	0.143	49.04	7.00	1.522	0.99984
3313	1	0.87	20	1,051	1,357	0.015	52.55	0.77	1.000	0.99998
3314	1	2.07	1	124	223	0.004	124.00	0.56	1.000	0.99999
3315	1	0.83	2	100	1,586	0.001	50.00	0.06	1.000	0.99999
3422	2	1.89	103	6,625	980	0.105	64.32	6.76	1.000	0.99985
3423	1	1.08	27	1,762	389	0.069	65.26	4.53	1.000	0.99990

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
3471	1	0.67	1	40	468	0.002	40.00	0.09	1.000	0.99999
3552	4	3.60	88	3,101	576	0.153	35.24	5.38	1.060	0.99988
3553	2	1.90	55	3,254	875	0.063	59.16	3.72	1.000	0.99992
3591	2	7.88	29	6,148	1,256	0.023	212.00	4.89	1.000	0.99989
3594	2	5.85	416	80,035	691	0.602	192.39	115.82	1.000	0.99741
3621	1	1.35	1	81	1,562	0.001	81.00	0.05	1.000	0.99999
3663	2	5.05	4	373	746	0.005	93.25	0.50	1.000	0.99999
3664	1	1.42	1	85	555	0.002	85.00	0.15	1.000	0.99999
3673	1	5.75	1	345	269	0.004	345.00	1.28	1.000	0.99997
3692	1	5.22	1	313	410	0.002	313.00	0.76	1.000	0.99998
3694	2	2.40	2	144	1,360	0.001	72.00	0.11	1.000	0.99999
3751	6	15.96	2,121	274,707	890	2.383	129.52	308.66	2.010	0.99309
3871	1	0.58	21	752	1,359	0.015	35.81	0.55	1.000	0.99999
3873	1	1.23	87	6,435	804	0.108	73.97	8.00	1.000	0.99982
3874	1	3.02	1	181	193	0.005	181.00	0.94	1.000	0.99998
3878	1	0.90	14	757	800	0.018	54.07	0.95	1.000	0.99998
3891	2	2.14	2	128	430	0.005	64.00	0.30	1.000	0.99999
3892	1	0.65	495	19,668	507	0.976	39.73	38.79	1.000	0.99913
3893	5	7.83	16	1,384	1,124	0.014	86.50	1.23	1.143	0.99997
3901	3	4.17	9	803	885	0.010	89.22	0.91	1.500	0.99998
3903	1	1.27	1	76	301	0.003	76.00	0.25	1.000	0.99999
3912	2	2.60	3	235	1,195	0.003	78.33	0.20	1.000	0.99999

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
3913	1	0.87	15	784	822	0.018	52.27	0.95	1.000	0.99998
3951	6	7.74	118	9,008	931	0.127	76.34	9.68	1.054	0.99978
3952	1	2.65	1	159	1,278	0.001	159.00	0.12	1.000	0.99999
3953	5	15.63	91	18,227	526	0.173	200.30	34.65	1.000	0.99922
3981	6	13.35	781	57,099	1,509	0.518	73.11	37.84	1.116	0.99915
3991	5	3.63	789	44,161	735	1.073	55.97	60.08	1.081	0.99865
3992	4	3.56	183	10,836	168	1.089	59.21	64.50	1.096	0.99856
4031	4	12.15	80	25,714	708	0.113	321.43	36.32	1.026	0.99919
4092	1	1.15	16	1,113	437	0.037	69.56	2.55	1.000	0.99994
4101	3	6.15	976	128,525	964	1.012	131.69	133.32	1.646	0.99701
4102	1	3.75	73	16,448	539	0.135	225.32	30.52	1.000	0.99932
4138	2	1.77	22	1,208	749	0.029	54.91	1.61	1.000	0.99996
4141	3	5.43	51	4,082	82	0.622	80.04	49.78	1.041	0.99888
4151	1	0.87	10	528	172	0.058	52.80	3.07	1.000	0.99993
4152	3	2.01	58	2,455	241	0.241	42.33	10.19	1.000	0.99977
4153	1	1.67	1	100	1,304	0.001	100.00	0.08	1.000	0.99999
4154	2	5.83	2	350	1,220	0.002	175.00	0.29	1.000	0.99999
4171	2	3.13	42	3,847	681	0.062	91.60	5.65	1.000	0.99987
4172	1	1.05	1	63	1,731	0.001	63.00	0.04	1.000	0.99999
4173	1	3.08	6	1,114	639	0.009	185.67	1.74	1.000	0.99996
4181	1	1.02	11	673	766	0.014	61.18	0.88	1.000	0.99998
4182	1	1.90	1	114	765	0.001	114.00	0.15	1.000	0.99999

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
4212	1	0.23	628	8,969	820	0.766	14.28	10.94	1.000	0.99975
4222	1	1.25	39	2,932	1,046	0.037	75.18	2.80	1.000	0.99994
4311	1	0.98	31	1,834	861	0.036	59.16	2.13	1.000	0.99995
4312	2	2.80	35	2,907	852	0.041	83.06	3.41	1.000	0.99992
4341	3	4.10	141	12,317	1,825	0.077	87.35	6.75	1.000	0.99985
4343	1	0.70	98	4,184	1,034	0.095	42.69	4.05	1.000	0.99991
4361	4	5.17	100	11,988	1,604	0.062	119.88	7.47	1.020	0.99983
4363	4	4.47	62	4,327	1,421	0.044	69.79	3.05	1.000	0.99993
4371	2	3.09	18	1,834	1,540	0.012	101.89	1.19	1.000	0.99997
4381	1	3.13	1	188	437	0.002	188.00	0.43	1.000	0.99999
4386	1	1.10	245	16,138	1,666	0.147	65.87	9.69	1.000	0.99978
4431	3	2.58	43	2,620	1,394	0.031	60.93	1.88	1.024	0.99996
4432	2	3.80	6	749	464	0.013	124.83	1.61	1.000	0.99996
4601	1	1.13	1	68	424	0.002	68.00	0.16	1.000	0.99999
4602	1	0.43	1	26	954	0.001	26.00	0.03	1.000	0.99999
4692	3	3.01	51	3,160	475	0.107	61.96	6.65	1.000	0.99985
4714	2	1.33	16	665	328	0.049	41.56	2.03	1.067	0.99995
5601	3	7.87	26	3,085	1,329	0.020	118.65	2.32	1.000	0.99995
5603	11	26.92	1,605	270,577	1,298	1.237	168.58	208.46	1.237	0.99533
5902	1	0.93	1	56	945	0.001	56.00	0.06	1.000	0.99999
5904	1	1.07	1	64	1,233	0.001	64.00	0.05	1.000	0.99999
5905	1	0.78	1	47	1,876	0.001	47.00	0.03	1.000	0.99999

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
6021	2	2.59	57	4,149	1,316	0.043	72.79	3.15	1.000	0.99993
6024	1	0.43	106	2,821	395	0.268	26.61	7.14	1.000	0.99984
	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUSTOMERS SERVED	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
Total:	232	509.20	12,507	1,417,115	166,569	0.075	113.31	8.51	1.207	0.99981

THE EMPIRE DISTRICT ELECTRIC COMPANY
CUSTOMER OUTAGE STATISTICS AND INDICES FOR MISSOURI
10/1/2018 to 10/31/2018
EXCLUDING MAJOR EVENT DAYS

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1050	1	1.00	1	60	1,605	0.001	60.00	0.04	1.000	0.99999
1082	1	1.55	1	93	1,347	0.001	93.00	0.07	1.000	0.99999
1091	4	7.04	1,384	227,110	694	1.994	164.10	327.25	1.994	0.99267
1092	6	7.85	142	10,952	977	0.145	77.13	11.21	1.000	0.99975
1093	1	1.02	28	1,724	238	0.118	61.57	7.24	1.000	0.99984
1094	3	3.66	95	6,586	1,230	0.077	69.33	5.35	1.000	0.99988
1211	2	6.10	14	1,555	1,487	0.009	111.07	1.05	1.000	0.99998
1232	1	0.92	1	55	1,179	0.001	55.00	0.05	1.000	0.99999
1241	3	9.56	59	8,209	872	0.068	139.14	9.41	1.204	0.99979
1242	6	135.02	26	20,285	859	0.030	780.19	23.61	1.000	0.99947
1243	3	1.69	16	790	1,220	0.013	49.38	0.65	1.000	0.99999
1261	1	1.78	5	537	397	0.013	107.40	1.35	1.000	0.99997
1263	1	0.73	16	719	1,149	0.014	44.94	0.63	1.000	0.99999
1271	1	1.78	1	107	968	0.001	107.00	0.11	1.000	0.99999
1284	2	4.45	41	2,441	950	0.043	59.54	2.57	1.000	0.99994
1285	3	7.19	113	8,232	1,097	0.103	72.85	7.50	1.000	0.99983
1311	4	2.80	4	168	277	0.014	42.00	0.61	1.000	0.99999

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1312	4	5.84	8	734	941	0.009	91.75	0.78	1.600	0.99998
1454	3	5.01	50	6,210	932	0.054	124.20	6.66	1.000	0.99985
1523	1	0.98	26	1,543	740	0.035	59.35	2.09	1.000	0.99995
1841	1	1.27	1	76	529	0.002	76.00	0.14	1.000	0.99999
1843	1	1.03	12	750	1,086	0.011	62.50	0.69	1.000	0.99998
2171	1	1.18	1	71	568	0.002	71.00	0.13	1.000	0.99999
2212	1	0.95	1	57	1,302	0.001	57.00	0.04	1.000	0.99999
2491	1	2.42	16	2,329	63	0.254	145.56	36.97	1.000	0.99917
2621	1	1.28	1	77	1,180	0.001	77.00	0.07	1.000	0.99999
2951	1	1.13	46	3,131	1,407	0.033	68.07	2.23	1.000	0.99995
2961	2	5.88	49	8,526	647	0.076	174.00	13.18	1.000	0.99970
3122	2	5.55	13	2,216	856	0.015	170.46	2.59	1.000	0.99994
3221	3	6.38	22	2,936	1,256	0.018	133.45	2.34	1.048	0.99995
3222	3	3.60	9	646	775	0.012	71.78	0.83	1.000	0.99998
3231	1	1.67	4	402	204	0.020	100.50	1.97	1.000	0.99996
3302	1	0.83	1	50	907	0.001	50.00	0.06	1.000	0.99999
3303	5	3.60	137	6,718	960	0.143	49.04	7.00	1.522	0.99984
3313	1	0.87	20	1,051	1,357	0.015	52.55	0.77	1.000	0.99998
3314	1	2.07	1	124	223	0.004	124.00	0.56	1.000	0.99999
3315	1	0.83	2	100	1,586	0.001	50.00	0.06	1.000	0.99999
3422	2	1.89	103	6,625	980	0.105	64.32	6.76	1.000	0.99985
3423	1	1.08	27	1,762	389	0.069	65.26	4.53	1.000	0.99990

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
3471	1	0.67	1	40	468	0.002	40.00	0.09	1.000	0.99999
3552	4	3.60	88	3,101	576	0.153	35.24	5.38	1.060	0.99988
3553	2	1.90	55	3,254	875	0.063	59.16	3.72	1.000	0.99992
3591	2	7.88	29	6,148	1,256	0.023	212.00	4.89	1.000	0.99989
3594	2	5.85	416	80,035	691	0.602	192.39	115.82	1.000	0.99741
3621	1	1.35	1	81	1,562	0.001	81.00	0.05	1.000	0.99999
3663	2	5.05	4	373	746	0.005	93.25	0.50	1.000	0.99999
3664	1	1.42	1	85	555	0.002	85.00	0.15	1.000	0.99999
3673	1	5.75	1	345	269	0.004	345.00	1.28	1.000	0.99997
3692	1	5.22	1	313	410	0.002	313.00	0.76	1.000	0.99998
3694	2	2.40	2	144	1,360	0.001	72.00	0.11	1.000	0.99999
3751	6	15.96	2,121	274,707	890	2.383	129.52	308.66	2.010	0.99309
3871	1	0.58	21	752	1,359	0.015	35.81	0.55	1.000	0.99999
3873	1	1.23	87	6,435	804	0.108	73.97	8.00	1.000	0.99982
3874	1	3.02	1	181	193	0.005	181.00	0.94	1.000	0.99998
3878	1	0.90	14	757	800	0.018	54.07	0.95	1.000	0.99998
3891	2	2.14	2	128	430	0.005	64.00	0.30	1.000	0.99999
3892	1	0.65	495	19,668	507	0.976	39.73	38.79	1.000	0.99913
3893	5	7.83	16	1,384	1,124	0.014	86.50	1.23	1.143	0.99997
3901	3	4.17	9	803	885	0.010	89.22	0.91	1.500	0.99998
3903	1	1.27	1	76	301	0.003	76.00	0.25	1.000	0.99999
3912	2	2.60	3	235	1,195	0.003	78.33	0.20	1.000	0.99999

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
3913	1	0.87	15	784	822	0.018	52.27	0.95	1.000	0.99998
3951	6	7.74	118	9,008	931	0.127	76.34	9.68	1.054	0.99978
3952	1	2.65	1	159	1,278	0.001	159.00	0.12	1.000	0.99999
3953	5	15.63	91	18,227	526	0.173	200.30	34.65	1.000	0.99922
3981	6	13.35	781	57,099	1,509	0.518	73.11	37.84	1.116	0.99915
3991	5	3.63	789	44,161	735	1.073	55.97	60.08	1.081	0.99865
3992	4	3.56	183	10,836	168	1.089	59.21	64.50	1.096	0.99856
4031	4	12.15	80	25,714	708	0.113	321.43	36.32	1.026	0.99919
4092	1	1.15	16	1,113	437	0.037	69.56	2.55	1.000	0.99994
4101	3	6.15	976	128,525	964	1.012	131.69	133.32	1.646	0.99701
4102	1	3.75	73	16,448	539	0.135	225.32	30.52	1.000	0.99932
4138	2	1.77	22	1,208	749	0.029	54.91	1.61	1.000	0.99996
4141	3	5.43	51	4,082	82	0.622	80.04	49.78	1.041	0.99888
4151	1	0.87	10	528	172	0.058	52.80	3.07	1.000	0.99993
4152	3	2.01	58	2,455	241	0.241	42.33	10.19	1.000	0.99977
4153	1	1.67	1	100	1,304	0.001	100.00	0.08	1.000	0.99999
4154	2	5.83	2	350	1,220	0.002	175.00	0.29	1.000	0.99999
4171	2	3.13	42	3,847	681	0.062	91.60	5.65	1.000	0.99987
4172	1	1.05	1	63	1,731	0.001	63.00	0.04	1.000	0.99999
4173	1	3.08	6	1,114	639	0.009	185.67	1.74	1.000	0.99996
4181	1	1.02	11	673	766	0.014	61.18	0.88	1.000	0.99998
4182	1	1.90	1	114	765	0.001	114.00	0.15	1.000	0.99999

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
4212	1	0.23	628	8,969	820	0.766	14.28	10.94	1.000	0.99975
4222	1	1.25	39	2,932	1,046	0.037	75.18	2.80	1.000	0.99994
4311	1	0.98	31	1,834	861	0.036	59.16	2.13	1.000	0.99995
4312	2	2.80	35	2,907	852	0.041	83.06	3.41	1.000	0.99992
4341	3	4.10	141	12,317	1,825	0.077	87.35	6.75	1.000	0.99985
4343	1	0.70	98	4,184	1,034	0.095	42.69	4.05	1.000	0.99991
4361	4	5.17	100	11,988	1,604	0.062	119.88	7.47	1.020	0.99983
4363	4	4.47	62	4,327	1,421	0.044	69.79	3.05	1.000	0.99993
4371	2	3.09	18	1,834	1,540	0.012	101.89	1.19	1.000	0.99997
4381	1	3.13	1	188	437	0.002	188.00	0.43	1.000	0.99999
4386	1	1.10	245	16,138	1,666	0.147	65.87	9.69	1.000	0.99978
4431	3	2.58	43	2,620	1,394	0.031	60.93	1.88	1.024	0.99996
4432	2	3.80	6	749	464	0.013	124.83	1.61	1.000	0.99996
4601	1	1.13	1	68	424	0.002	68.00	0.16	1.000	0.99999
4602	1	0.43	1	26	954	0.001	26.00	0.03	1.000	0.99999
4692	3	3.01	51	3,160	475	0.107	61.96	6.65	1.000	0.99985
4714	2	1.33	16	665	328	0.049	41.56	2.03	1.067	0.99995
5601	3	7.87	26	3,085	1,329	0.020	118.65	2.32	1.000	0.99995
5603	11	26.92	1,605	270,577	1,298	1.237	168.58	208.46	1.237	0.99533
5902	1	0.93	1	56	945	0.001	56.00	0.06	1.000	0.99999
5904	1	1.07	1	64	1,233	0.001	64.00	0.05	1.000	0.99999
5905	1	0.78	1	47	1,876	0.001	47.00	0.03	1.000	0.99999

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
6021	2	2.59	57	4,149	1,316	0.043	72.79	3.15	1.000	0.99993
6024	1	0.43	106	2,821	395	0.268	26.61	7.14	1.000	0.99984
	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUSTOMERS SERVED	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
Total:	232	509.20	12,507	1,417,115	166,569	0.075	113.31	8.51	1.207	0.99981

THE EMPIRE DISTRICT ELECTRIC COMPANY
CUSTOMER OUTAGE STATISTICS AND INDICES FOR MISSOURI
11/1/2018 to 11/30/2018
INCLUDING MAJOR EVENT DAYS

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1052	3	2.42	151	7,375	1,131	0.134	48.84	6.52	1.007	0.99985
1081	2	3.00	1,852	168,982	18	102.889	91.24	9387.89	1.981	0.78269
1082	4	6.38	59	7,418	1,347	0.044	125.73	5.51	1.054	0.99987
1091	1	3.02	5	909	694	0.007	181.80	1.31	1.000	0.99997
1092	3	4.68	5	454	977	0.005	90.80	0.46	1.000	0.99999
1094	7	21.21	126	22,632	1,226	0.103	179.62	18.46	1.059	0.99957
1101	1	0.67	77	3,082	162	0.475	40.03	19.02	1.000	0.99956
1142	1	1.62	1	97	214	0.005	97.00	0.45	1.000	0.99999
1212	1	1.07	1	64	333	0.003	64.00	0.19	1.000	0.99999
1230	1	2.37	1,188	169,804	1,188	1.000	142.93	142.93	1.000	0.99669
1232	3	4.66	8	591	1,179	0.007	73.88	0.50	1.000	0.99999
1233	2	2.96	747	78,038	640	1.167	104.47	121.93	1.167	0.99718
1242	1	2.02	1	121	859	0.001	121.00	0.14	1.000	0.99999
1261	2	5.20	26	5,892	397	0.065	226.62	14.84	1.040	0.99966
1263	1	2.33	1	140	1,149	0.001	140.00	0.12	1.000	0.99999
1265	3	9.09	52	11,123	1,287	0.040	213.90	8.64	1.000	0.99980
1271	3	4.62	1,411	87,384	967	1.459	61.93	90.37	1.459	0.99791

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1273	6	4.98	53	2,242	865	0.061	42.30	2.59	1.205	0.99994
1282	1	1.02	1	61	692	0.001	61.00	0.09	1.000	0.99999
1285	2	1.92	290	13,503	1,097	0.264	46.56	12.31	1.047	0.99972
1312	1	1.40	7	594	941	0.007	84.86	0.63	1.000	0.99999
1452	3	3.91	6	588	452	0.013	98.00	1.30	1.500	0.99997
1453	1	0.70	8	338	1,801	0.004	42.25	0.19	1.000	0.99999
1454	1	0.77	1	46	932	0.001	46.00	0.05	1.000	0.99999
1455	1	2.92	16	2,808	396	0.040	175.50	7.09	1.000	0.99984
1521	1	0.70	1	42	371	0.003	42.00	0.11	1.000	0.99999
1523	3	2.95	10	428	740	0.014	42.80	0.58	1.250	0.99999
1842	1	0.78	1	47	283	0.004	47.00	0.17	1.000	0.99999
1843	1	1.03	8	501	1,086	0.007	62.63	0.46	1.000	0.99999
2052	1	1.10	1	66	85	0.012	66.00	0.78	1.000	0.99998
2091	1	1.60	10	969	889	0.011	96.90	1.09	1.000	0.99997
2171	1	1.45	7	615	568	0.012	87.86	1.08	1.000	0.99997
2211	1	0.58	24	840	728	0.033	35.00	1.15	1.000	0.99997
2511	1	1.47	1	88	620	0.002	88.00	0.14	1.000	0.99999
2621	2	2.95	2	177	1,180	0.002	88.50	0.15	1.000	0.99999
2951	5	4.45	1,411	91,891	1,407	1.003	65.12	65.31	1.003	0.99849
2961	1	0.67	1	40	647	0.002	40.00	0.06	1.000	0.99999
3121	1	2.25	81	10,991	1,137	0.071	135.69	9.67	1.000	0.99978
3181	1	3.42	1	205	735	0.001	205.00	0.28	1.000	0.99999

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
3303	3	5.25	75	5,986	960	0.078	79.81	6.24	1.014	0.99986
3304	1	3.47	1	208	1,078	0.001	208.00	0.19	1.000	0.99999
3314	2	2.50	24	1,504	223	0.108	62.67	6.74	1.043	0.99984
3315	2	17.00	3	1,163	1,586	0.002	387.67	0.73	1.000	0.99998
3421	1	2.20	1	132	296	0.003	132.00	0.45	1.000	0.99999
3471	1	1.18	14	1,004	468	0.030	71.71	2.15	1.000	0.99995
3472	2	1.65	112	5,296	1,286	0.087	47.29	4.12	1.009	0.99990
3591	5	6.66	52	3,035	1,256	0.041	58.37	2.42	1.020	0.99994
3592	2	1.45	9	493	1,754	0.005	54.78	0.28	1.125	0.99999
3594	1	1.02	18	1,109	691	0.026	61.61	1.60	1.000	0.99996
3621	3	6.18	50	6,039	1,562	0.032	120.78	3.87	1.042	0.99991
3661	2	2.47	9	465	1,032	0.009	51.67	0.45	1.125	0.99999
3662	2	1.32	2	79	790	0.003	39.50	0.10	1.000	0.99999
3663	2	3.25	68	6,153	746	0.091	90.49	8.25	1.000	0.99981
3664	1	0.98	1	59	555	0.002	59.00	0.11	1.000	0.99999
3691	3	3.49	6	307	1,166	0.005	51.17	0.26	1.200	0.99999
3694	2	5.04	46	4,612	1,360	0.034	100.26	3.39	1.000	0.99992
3702	1	1.72	17	1,756	609	0.028	103.29	2.88	1.000	0.99993
3751	2	2.95	28	1,192	890	0.031	42.57	1.34	1.000	0.99997
3871	2	2.45	2	147	1,359	0.001	73.50	0.11	1.000	0.99999
3872	2	2.93	34	3,008	1,071	0.032	88.47	2.81	2.000	0.99993
3878	4	4.90	20	1,350	800	0.025	67.50	1.69	1.053	0.99996

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
3891	1	1.20	62	4,522	430	0.144	72.94	10.52	1.000	0.99976
3893	2	3.32	2	199	1,124	0.002	99.50	0.18	1.000	0.99999
3894	1	0.68	11	456	150	0.073	41.45	3.04	1.000	0.99993
3901	3	4.71	17	1,529	885	0.019	89.94	1.73	1.000	0.99996
3913	2	7.65	35	8,718	822	0.043	249.09	10.61	1.000	0.99975
3951	6	10.63	1,053	25,339	931	1.131	24.06	27.22	1.131	0.99937
3952	7	12.60	36	2,648	1,278	0.028	73.56	2.07	1.091	0.99995
3953	2	1.69	2	101	526	0.004	50.50	0.19	1.000	0.99999
3981	15	48.43	190	51,064	1,509	0.126	268.76	33.84	1.067	0.99922
3982	4	9.44	30	2,997	1,773	0.017	99.90	1.69	1.034	0.99996
3991	3	6.00	31	5,487	735	0.042	177.00	7.47	1.033	0.99983
3992	1	1.13	22	1,501	168	0.131	68.23	8.93	1.000	0.99979
402	3	4.67	216	11,678	108	2.000	54.06	108.13	2.000	0.99750
403	1	2.12	1	127	267	0.004	127.00	0.48	1.000	0.99999
4031	5	6.69	21	1,671	708	0.030	79.57	2.36	1.050	0.99995
4091	2	4.03	416	66,061	1,153	0.361	158.80	57.29	1.002	0.99867
4101	4	3.65	90	6,120	964	0.093	68.00	6.35	1.023	0.99985
4134	7	2.28	1,410	14,159	1,233	1.144	10.04	11.48	1.151	0.99973
4138	5	6.55	60	5,123	749	0.080	85.38	6.84	1.132	0.99984
4141	1	2.05	49	6,040	82	0.598	123.27	73.66	1.000	0.99829
4182	2	4.42	106	14,692	765	0.139	138.60	19.21	1.010	0.99956
4212	3	2.50	68	3,414	820	0.083	50.21	4.16	1.063	0.99990

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
4222	2	1.30	7	263	1,046	0.007	37.57	0.25	1.167	0.99999
4224	1	0.55	19	632	758	0.025	33.26	0.83	1.000	0.99998
4303	1	1.82	117	12,866	1,047	0.112	109.97	12.29	1.000	0.99972
4331	1	0.70	318	13,382	318	1.000	42.08	42.08	1.000	0.99903
4332	1	3.38	324	66,069	324	1.000	203.92	203.92	1.000	0.99528
4333	1	0.62	692	26,030	694	0.997	37.62	37.51	1.000	0.99913
4334	7	4.34	12	483	298	0.040	40.25	1.62	1.000	0.99996
4341	2	3.61	2	217	1,825	0.001	108.50	0.12	1.000	0.99999
4343	2	1.16	2	70	1,034	0.002	35.00	0.07	1.000	0.99999
4361	2	1.78	2	107	1,604	0.001	53.50	0.07	1.000	0.99999
4362	1	1.18	1	71	827	0.001	71.00	0.09	1.000	0.99999
4363	3	2.36	49	2,526	1,421	0.034	51.55	1.78	1.000	0.99996
4371	4	4.00	4	240	1,540	0.003	60.00	0.16	1.000	0.99999
4373	1	15.40	792	731,966	791	1.001	924.20	925.37	1.000	0.97858
4386	2	1.98	483	29,006	1,666	0.290	60.05	17.41	1.000	0.99960
4431	5	15.98	1,424	249,195	1,394	1.022	175.00	178.76	1.131	0.99586
4432	2	4.20	4	437	464	0.009	109.25	0.94	1.000	0.99998
4511	1	1.18	80	5,696	1,124	0.071	71.20	5.07	1.000	0.99988
4602	1	1.22	10	733	954	0.010	73.30	0.77	1.000	0.99998
4692	4	8.39	516	58,969	475	1.086	114.28	124.15	1.008	0.99713
5601	3	2.68	92	3,345	1,328	0.069	36.36	2.52	1.011	0.99994
5603	4	3.53	169	7,349	1,298	0.130	43.49	5.66	1.000	0.99987

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
5641	1	2.45	1	147	322	0.003	147.00	0.46	1.000	0.99999
5905	2	2.62	72	4,876	1,876	0.038	67.72	2.60	1.000	0.99994
6021	3	1.52	1,329	5,977	1,316	1.010	4.50	4.54	1.010	0.99989
6022	1	0.07	491	2,324	491	1.000	4.73	4.73	1.000	0.99989
6023	1	0.07	128	569	128	1.000	4.45	4.45	1.000	0.99990
6024	2	1.27	396	1,935	395	1.003	4.89	4.90	1.003	0.99989
6141	1	2.33	1	140	634	0.002	140.00	0.22	1.000	0.99999
	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUSTOMERS SERVED	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
Total:	264	438.53	19,709	2,195,549	166,547	0.118	111.40	13.18	1.121	0.99969

THE EMPIRE DISTRICT ELECTRIC COMPANY
CUSTOMER OUTAGE STATISTICS AND INDICES FOR MISSOURI
11/1/2018 to 11/30/2018
EXCLUDING MAJOR EVENT DAYS

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1052	3	2.42	151	7,375	1,131	0.134	48.84	6.52	1.007	0.99985
1081	2	3.00	1,852	168,982	18	102.889	91.24	9387.89	1.981	0.78269
1082	4	6.38	59	7,418	1,347	0.044	125.73	5.51	1.054	0.99987
1091	1	3.02	5	909	694	0.007	181.80	1.31	1.000	0.99997
1092	3	4.68	5	454	977	0.005	90.80	0.46	1.000	0.99999
1094	7	21.21	126	22,632	1,226	0.103	179.62	18.46	1.059	0.99957
1101	1	0.67	77	3,082	162	0.475	40.03	19.02	1.000	0.99956
1142	1	1.62	1	97	214	0.005	97.00	0.45	1.000	0.99999
1212	1	1.07	1	64	333	0.003	64.00	0.19	1.000	0.99999
1230	1	2.37	1,188	169,804	1,188	1.000	142.93	142.93	1.000	0.99669
1232	3	4.66	8	591	1,179	0.007	73.88	0.50	1.000	0.99999
1233	2	2.96	747	78,038	640	1.167	104.47	121.93	1.167	0.99718
1242	1	2.02	1	121	859	0.001	121.00	0.14	1.000	0.99999
1261	2	5.20	26	5,892	397	0.065	226.62	14.84	1.040	0.99966
1263	1	2.33	1	140	1,149	0.001	140.00	0.12	1.000	0.99999
1265	3	9.09	52	11,123	1,287	0.040	213.90	8.64	1.000	0.99980
1271	3	4.62	1,411	87,384	967	1.459	61.93	90.37	1.459	0.99791

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1273	6	4.98	53	2,242	865	0.061	42.30	2.59	1.205	0.99994
1282	1	1.02	1	61	692	0.001	61.00	0.09	1.000	0.99999
1285	2	1.92	290	13,503	1,097	0.264	46.56	12.31	1.047	0.99972
1312	1	1.40	7	594	941	0.007	84.86	0.63	1.000	0.99999
1452	3	3.91	6	588	452	0.013	98.00	1.30	1.500	0.99997
1453	1	0.70	8	338	1,801	0.004	42.25	0.19	1.000	0.99999
1454	1	0.77	1	46	932	0.001	46.00	0.05	1.000	0.99999
1455	1	2.92	16	2,808	396	0.040	175.50	7.09	1.000	0.99984
1521	1	0.70	1	42	371	0.003	42.00	0.11	1.000	0.99999
1523	3	2.95	10	428	740	0.014	42.80	0.58	1.250	0.99999
1842	1	0.78	1	47	283	0.004	47.00	0.17	1.000	0.99999
1843	1	1.03	8	501	1,086	0.007	62.63	0.46	1.000	0.99999
2052	1	1.10	1	66	85	0.012	66.00	0.78	1.000	0.99998
2091	1	1.60	10	969	889	0.011	96.90	1.09	1.000	0.99997
2171	1	1.45	7	615	568	0.012	87.86	1.08	1.000	0.99997
2211	1	0.58	24	840	728	0.033	35.00	1.15	1.000	0.99997
2511	1	1.47	1	88	620	0.002	88.00	0.14	1.000	0.99999
2621	2	2.95	2	177	1,180	0.002	88.50	0.15	1.000	0.99999
2951	5	4.45	1,411	91,891	1,407	1.003	65.12	65.31	1.003	0.99849
2961	1	0.67	1	40	647	0.002	40.00	0.06	1.000	0.99999
3121	1	2.25	81	10,991	1,137	0.071	135.69	9.67	1.000	0.99978
3181	1	3.42	1	205	735	0.001	205.00	0.28	1.000	0.99999

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
3303	3	5.25	75	5,986	960	0.078	79.81	6.24	1.014	0.99986
3304	1	3.47	1	208	1,078	0.001	208.00	0.19	1.000	0.99999
3314	2	2.50	24	1,504	223	0.108	62.67	6.74	1.043	0.99984
3315	2	17.00	3	1,163	1,586	0.002	387.67	0.73	1.000	0.99998
3421	1	2.20	1	132	296	0.003	132.00	0.45	1.000	0.99999
3471	1	1.18	14	1,004	468	0.030	71.71	2.15	1.000	0.99995
3472	2	1.65	112	5,296	1,286	0.087	47.29	4.12	1.009	0.99990
3591	5	6.66	52	3,035	1,256	0.041	58.37	2.42	1.020	0.99994
3592	2	1.45	9	493	1,754	0.005	54.78	0.28	1.125	0.99999
3594	1	1.02	18	1,109	691	0.026	61.61	1.60	1.000	0.99996
3621	3	6.18	50	6,039	1,562	0.032	120.78	3.87	1.042	0.99991
3661	2	2.47	9	465	1,032	0.009	51.67	0.45	1.125	0.99999
3662	2	1.32	2	79	790	0.003	39.50	0.10	1.000	0.99999
3663	2	3.25	68	6,153	746	0.091	90.49	8.25	1.000	0.99981
3664	1	0.98	1	59	555	0.002	59.00	0.11	1.000	0.99999
3691	3	3.49	6	307	1,166	0.005	51.17	0.26	1.200	0.99999
3694	2	5.04	46	4,612	1,360	0.034	100.26	3.39	1.000	0.99992
3702	1	1.72	17	1,756	609	0.028	103.29	2.88	1.000	0.99993
3751	2	2.95	28	1,192	890	0.031	42.57	1.34	1.000	0.99997
3871	2	2.45	2	147	1,359	0.001	73.50	0.11	1.000	0.99999
3872	2	2.93	34	3,008	1,071	0.032	88.47	2.81	2.000	0.99993
3878	4	4.90	20	1,350	800	0.025	67.50	1.69	1.053	0.99996

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
3891	1	1.20	62	4,522	430	0.144	72.94	10.52	1.000	0.99976
3893	2	3.32	2	199	1,124	0.002	99.50	0.18	1.000	0.99999
3894	1	0.68	11	456	150	0.073	41.45	3.04	1.000	0.99993
3901	3	4.71	17	1,529	885	0.019	89.94	1.73	1.000	0.99996
3913	2	7.65	35	8,718	822	0.043	249.09	10.61	1.000	0.99975
3951	6	10.63	1,053	25,339	931	1.131	24.06	27.22	1.131	0.99937
3952	7	12.60	36	2,648	1,278	0.028	73.56	2.07	1.091	0.99995
3953	2	1.69	2	101	526	0.004	50.50	0.19	1.000	0.99999
3981	15	48.43	190	51,064	1,509	0.126	268.76	33.84	1.067	0.99922
3982	4	9.44	30	2,997	1,773	0.017	99.90	1.69	1.034	0.99996
3991	3	6.00	31	5,487	735	0.042	177.00	7.47	1.033	0.99983
3992	1	1.13	22	1,501	168	0.131	68.23	8.93	1.000	0.99979
402	3	4.67	216	11,678	108	2.000	54.06	108.13	2.000	0.99750
403	1	2.12	1	127	267	0.004	127.00	0.48	1.000	0.99999
4031	5	6.69	21	1,671	708	0.030	79.57	2.36	1.050	0.99995
4091	2	4.03	416	66,061	1,153	0.361	158.80	57.29	1.002	0.99867
4101	4	3.65	90	6,120	964	0.093	68.00	6.35	1.023	0.99985
4134	7	2.28	1,410	14,159	1,233	1.144	10.04	11.48	1.151	0.99973
4138	5	6.55	60	5,123	749	0.080	85.38	6.84	1.132	0.99984
4141	1	2.05	49	6,040	82	0.598	123.27	73.66	1.000	0.99829
4182	2	4.42	106	14,692	765	0.139	138.60	19.21	1.010	0.99956
4212	3	2.50	68	3,414	820	0.083	50.21	4.16	1.063	0.99990

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
4222	2	1.30	7	263	1,046	0.007	37.57	0.25	1.167	0.99999
4224	1	0.55	19	632	758	0.025	33.26	0.83	1.000	0.99998
4303	1	1.82	117	12,866	1,047	0.112	109.97	12.29	1.000	0.99972
4331	1	0.70	318	13,382	318	1.000	42.08	42.08	1.000	0.99903
4332	1	3.38	324	66,069	324	1.000	203.92	203.92	1.000	0.99528
4333	1	0.62	692	26,030	694	0.997	37.62	37.51	1.000	0.99913
4334	7	4.34	12	483	298	0.040	40.25	1.62	1.000	0.99996
4341	2	3.61	2	217	1,825	0.001	108.50	0.12	1.000	0.99999
4343	2	1.16	2	70	1,034	0.002	35.00	0.07	1.000	0.99999
4361	2	1.78	2	107	1,604	0.001	53.50	0.07	1.000	0.99999
4362	1	1.18	1	71	827	0.001	71.00	0.09	1.000	0.99999
4363	3	2.36	49	2,526	1,421	0.034	51.55	1.78	1.000	0.99996
4371	4	4.00	4	240	1,540	0.003	60.00	0.16	1.000	0.99999
4373	1	15.40	792	731,966	791	1.001	924.20	925.37	1.000	0.97858
4386	2	1.98	483	29,006	1,666	0.290	60.05	17.41	1.000	0.99960
4431	5	15.98	1,424	249,195	1,394	1.022	175.00	178.76	1.131	0.99586
4432	2	4.20	4	437	464	0.009	109.25	0.94	1.000	0.99998
4511	1	1.18	80	5,696	1,124	0.071	71.20	5.07	1.000	0.99988
4602	1	1.22	10	733	954	0.010	73.30	0.77	1.000	0.99998
4692	4	8.39	516	58,969	475	1.086	114.28	124.15	1.008	0.99713
5601	3	2.68	92	3,345	1,328	0.069	36.36	2.52	1.011	0.99994
5603	4	3.53	169	7,349	1,298	0.130	43.49	5.66	1.000	0.99987

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
5641	1	2.45	1	147	322	0.003	147.00	0.46	1.000	0.99999
5905	2	2.62	72	4,876	1,876	0.038	67.72	2.60	1.000	0.99994
6021	3	1.52	1,329	5,977	1,316	1.010	4.50	4.54	1.010	0.99989
6022	1	0.07	491	2,324	491	1.000	4.73	4.73	1.000	0.99989
6023	1	0.07	128	569	128	1.000	4.45	4.45	1.000	0.99990
6024	2	1.27	396	1,935	395	1.003	4.89	4.90	1.003	0.99989
6141	1	2.33	1	140	634	0.002	140.00	0.22	1.000	0.99999
	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUSTOMERS SERVED	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
Total:	264	438.53	19,709	2,195,549	166,547	0.118	111.40	13.18	1.121	0.99969

THE EMPIRE DISTRICT ELECTRIC COMPANY
CUSTOMER OUTAGE STATISTICS AND INDICES FOR MISSOURI
12/1/2018 to 12/31/2018
INCLUDING MAJOR EVENT DAYS

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1052	2	1.56	96	4,544	1,131	0.085	47.33	4.02	1.021	0.99991
1081	6	6.77	106	8,185	18	5.889	77.22	454.72	1.082	0.98981
1082	1	1.72	16	1,656	1,347	0.012	103.50	1.23	1.000	0.99997
1091	1	3.48	1	209	694	0.001	209.00	0.30	1.000	0.99999
1092	1	0.80	1	48	977	0.001	48.00	0.05	1.000	0.99999
1102	1	1.98	60	7,176	918	0.065	119.60	7.82	1.000	0.99982
1211	4	8.96	24	2,560	1,487	0.016	106.67	1.72	1.091	0.99996
1212	1	1.28	1	77	333	0.003	77.00	0.23	1.000	0.99999
1213	2	3.75	13	995	558	0.023	76.54	1.78	1.000	0.99996
1230	1	4.60	1	276	1,188	0.001	276.00	0.23	1.000	0.99999
1232	2	5.80	16	2,588	1,179	0.014	161.75	2.20	1.000	0.99995
1241	3	40.18	964	449,214	872	1.106	465.99	515.15	1.106	0.98846
1242	2	1.90	2	114	859	0.002	57.00	0.13	1.000	0.99999
1243	13	117.48	1,472	594,486	1,220	1.207	403.86	487.28	1.207	0.98908
1261	1	1.25	1	75	397	0.003	75.00	0.19	1.000	0.99999
1263	1	1.32	63	5,024	1,149	0.055	79.75	4.37	1.000	0.99990
1265	1	1.88	1	113	1,287	0.001	113.00	0.09	1.000	0.99999

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1271	3	3.96	31	1,188	967	0.032	38.32	1.23	1.000	0.99997
1273	3	4.07	9	718	865	0.010	79.78	0.83	1.000	0.99998
1282	1	0.83	1	50	692	0.001	50.00	0.07	1.000	0.99999
1283	1	0.32	1	19	343	0.003	19.00	0.06	1.000	0.99999
1285	4	6.12	102	5,769	1,097	0.093	56.56	5.26	1.000	0.99988
1312	2	2.20	38	2,239	941	0.040	58.92	2.38	1.027	0.99995
1453	1	1.37	18	1,484	1,801	0.010	82.44	0.82	1.000	0.99998
1454	1	0.47	1	28	932	0.001	28.00	0.03	1.000	0.99999
1521	4	11.19	6	792	371	0.016	132.00	2.13	1.200	0.99995
1523	2	2.77	7	646	740	0.009	92.29	0.87	1.000	0.99998
1843	2	6.21	2	373	1,086	0.002	186.50	0.34	1.000	0.99999
2211	7	35.89	749	450,830	728	1.029	601.91	619.27	1.029	0.98613
2212	3	24.61	50	19,372	1,302	0.038	387.44	14.88	1.064	0.99967
2621	1	1.63	1	98	1,180	0.001	98.00	0.08	1.000	0.99999
2951	8	5.87	914	81,486	1,407	0.650	89.15	57.91	1.022	0.99870
2952	1	2.23	16	2,066	160	0.100	129.13	12.91	1.000	0.99971
2961	2	1.77	2	106	647	0.003	53.00	0.16	1.000	0.99999
3081	1	0.67	1	40	577	0.002	40.00	0.07	1.000	0.99999
3121	3	9.92	117	15,598	1,137	0.103	133.32	13.72	1.017	0.99969
3122	4	15.77	96	36,827	856	0.112	383.61	43.02	1.920	0.99904
3123	1	2.98	224	40,297	1,069	0.210	179.90	37.70	1.000	0.99916
3181	1	1.77	1	106	735	0.001	106.00	0.14	1.000	0.99999

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
3221	1	1.10	1	66	1,256	0.001	66.00	0.05	1.000	0.99999
3232	1	1.12	9	604	429	0.021	67.11	1.41	1.000	0.99997
3303	4	8.29	105	28,507	960	0.109	271.50	29.69	1.010	0.99933
3311	3	5.70	24	4,685	535	0.045	195.21	8.76	1.043	0.99980
3313	2	1.22	22	861	1,357	0.016	39.14	0.63	1.000	0.99999
3314	1	10.47	40	25,146	223	0.179	628.65	112.76	1.000	0.99747
3315	7	19.69	14	3,985	1,586	0.009	284.64	2.51	1.000	0.99994
3422	1	1.27	57	4,362	980	0.058	76.53	4.45	1.000	0.99990
3471	1	4.85	89	25,924	468	0.190	291.28	55.39	1.000	0.99876
3472	1	0.33	1	20	1,286	0.001	20.00	0.02	1.000	0.99999
3551	2	2.00	2	120	1,033	0.002	60.00	0.12	1.000	0.99999
3553	3	16.67	5	1,887	875	0.006	377.40	2.16	1.000	0.99995
3591	3	36.72	9	5,585	1,256	0.007	620.56	4.45	1.000	0.99990
3592	17	49.00	1,885	866,429	1,754	1.075	459.64	493.97	1.075	0.98893
3593	2	0.90	3	84	943	0.003	28.00	0.09	1.000	0.99999
3594	2	13.95	14	5,868	691	0.020	419.14	8.49	1.077	0.99981
3621	7	9.80	29	2,114	1,562	0.019	72.90	1.35	1.261	0.99997
3661	1	0.55	47	1,554	1,032	0.046	33.06	1.51	1.000	0.99997
3662	3	2.83	3	170	790	0.004	56.67	0.22	1.500	0.99999
3664	3	3.42	45	976	555	0.081	21.69	1.76	1.047	0.99996
3671	2	3.59	7	700	504	0.014	100.00	1.39	1.000	0.99997
3673	1	2.17	1	130	269	0.004	130.00	0.48	1.000	0.99999

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
3692	1	1.25	70	5,305	410	0.171	75.79	12.94	1.000	0.99971
3694	2	2.18	104	6,851	1,360	0.076	65.88	5.04	2.000	0.99989
3702	1	0.32	45	858	609	0.074	19.07	1.41	1.000	0.99997
3871	4	16.98	33	13,682	1,359	0.024	414.61	10.07	1.031	0.99977
3872	1	0.43	89	2,365	1,071	0.083	26.57	2.21	1.000	0.99995
3878	1	1.55	27	2,522	800	0.034	93.41	3.15	1.000	0.99993
3891	2	2.35	2	141	430	0.005	70.50	0.33	1.000	0.99999
3893	3	3.49	3	210	1,124	0.003	70.00	0.19	1.000	0.99999
3901	8	16.50	28	2,135	885	0.032	76.25	2.41	1.000	0.99995
3902	1	1.92	8	923	90	0.089	115.38	10.26	1.000	0.99977
3903	1	3.42	251	51,471	301	0.834	205.06	171.00	1.000	0.99617
3952	1	1.48	14	1,248	1,278	0.011	89.14	0.98	1.000	0.99998
3981	1	0.33	1	20	1,509	0.001	20.00	0.01	1.000	0.99999
3982	3	4.00	1,791	164,364	1,773	1.010	91.77	92.70	1.010	0.99792
3991	4	6.50	4	390	735	0.005	97.50	0.53	1.333	0.99999
3992	2	2.65	2	159	168	0.012	79.50	0.95	1.000	0.99998
4031	5	9.82	139	20,692	708	0.196	148.86	29.23	1.022	0.99935
404	1	1.62	169	16,407	169	1.000	97.08	97.08	1.000	0.99783
4092	1	1.03	1	62	437	0.002	62.00	0.14	1.000	0.99999
4101	1	4.48	13	3,507	964	0.013	269.77	3.64	1.000	0.99992
4137	1	3.35	1	201	798	0.001	201.00	0.25	1.000	0.99999
4138	3	10.46	69	8,543	749	0.092	123.81	11.41	1.000	0.99974

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
4141	1	6.70	1	402	82	0.012	402.00	4.90	1.000	0.99989
4151	1	0.57	10	344	172	0.058	34.40	2.00	1.000	0.99996
4155	1	0.97	26	1,516	2,158	0.012	58.31	0.70	1.000	0.99998
4171	2	2.51	29	2,082	681	0.043	71.79	3.06	1.036	0.99993
4173	1	0.77	6	276	639	0.009	46.00	0.43	1.000	0.99999
4182	1	1.42	1	85	765	0.001	85.00	0.11	1.000	0.99999
4212	4	5.32	109	7,000	820	0.133	64.22	8.54	1.000	0.99981
4222	4	4.60	19	1,565	1,046	0.018	82.37	1.50	1.188	0.99997
4224	1	0.37	2	44	758	0.003	22.00	0.06	1.000	0.99999
4303	1	0.98	13	773	1,047	0.012	59.46	0.74	1.000	0.99998
4311	1	1.22	5	366	861	0.006	73.20	0.43	1.000	0.99999
4331	1	8.47	1	508	318	0.003	508.00	1.60	1.000	0.99996
4341	5	6.59	51	3,642	1,825	0.028	71.41	2.00	1.063	0.99996
4342	1	0.82	1	49	1,763	0.001	49.00	0.03	1.000	0.99999
4343	3	3.82	114	9,242	1,034	0.110	81.07	8.94	1.065	0.99980
4361	4	4.23	1,823	187,482	1,604	1.137	102.84	116.88	1.137	0.99738
4362	2	2.83	921	91,195	827	1.114	99.02	110.27	1.114	0.99753
4363	2	2.13	1,431	115,408	1,421	1.007	80.65	81.22	1.008	0.99818
4371	21	97.67	1,625	1,372,601	1,540	1.055	844.68	891.30	1.060	0.98003
4372	2	22.00	448	353,764	448	1.000	789.65	789.65	1.002	0.98231
4373	35	93.51	96	16,985	791	0.121	176.93	21.47	1.067	0.99952
4381	1	5.90	46	16,315	437	0.105	354.67	37.33	1.000	0.99916

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
4385	3	5.35	1,125	163,947	1,123	1.002	145.73	145.99	1.005	0.99673
4431	8	14.07	1,430	241,137	1,394	1.026	168.63	172.98	1.026	0.99612
4432	11	27.34	131	20,445	464	0.282	156.07	44.06	1.065	0.99901
4511	1	10.43	55	34,433	1,124	0.049	626.05	30.63	1.000	0.99931
4602	2	2.55	6	553	954	0.006	92.17	0.58	1.000	0.99999
4692	2	1.84	12	662	475	0.025	55.17	1.39	1.091	0.99997
4714	1	1.92	1	115	328	0.003	115.00	0.35	1.000	0.99999
5601	6	5.83	26	1,015	1,328	0.020	39.04	0.76	1.040	0.99998
5602	1	1.60	1	96	681	0.001	96.00	0.14	1.000	0.99999
5603	3	2.46	108	5,963	1,298	0.083	55.21	4.59	1.009	0.99990
5901	3	1.92	185	8,245	688	0.269	44.57	11.98	1.011	0.99973
5902	2	1.85	968	79,344	945	1.024	81.97	83.96	1.025	0.99812
5904	2	1.41	87	3,686	1,233	0.071	42.37	2.99	1.000	0.99993
5905	1	0.17	1	10	1,876	0.001	10.00	0.01	1.000	0.99999
6021	9	12.22	43	2,560	1,316	0.033	59.53	1.95	1.000	0.99996
6141	2	2.25	21	1,481	634	0.033	70.52	2.34	1.050	0.99995
6142	1	1.25	19	1,439	312	0.061	75.74	4.61	1.000	0.99990
	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUSTOMERS SERVED	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
Total:	368	1,006.94	21,498	5,766,080	166,547	0.129	268.21	34.62	1.112	0.99922

THE EMPIRE DISTRICT ELECTRIC COMPANY
CUSTOMER OUTAGE STATISTICS AND INDICES FOR MISSOURI
12/1/2018 to 12/31/2018
EXCLUDING MAJOR EVENT DAYS

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1052	2	1.56	96	4,544	1,131	0.085	47.33	4.02	1.021	0.99991
1081	6	6.77	106	8,185	18	5.889	77.22	454.72	1.082	0.98947
1082	1	1.72	16	1,656	1,347	0.012	103.50	1.23	1.000	0.99997
1091	1	3.48	1	209	694	0.001	209.00	0.30	1.000	0.99999
1092	1	0.80	1	48	977	0.001	48.00	0.05	1.000	0.99999
1102	1	1.98	60	7,176	918	0.065	119.60	7.82	1.000	0.99982
1211	2	4.15	5	807	1,487	0.003	161.40	0.54	1.250	0.99999
1213	1	1.15	12	839	558	0.022	69.92	1.50	1.000	0.99997
1230	1	4.60	1	276	1,188	0.001	276.00	0.23	1.000	0.99999
1232	2	5.80	16	2,588	1,179	0.014	161.75	2.20	1.000	0.99995
1243	3	5.47	48	2,737	1,220	0.039	57.02	2.24	1.000	0.99995
1261	1	1.25	1	75	397	0.003	75.00	0.19	1.000	0.99999
1265	1	1.88	1	113	1,287	0.001	113.00	0.09	1.000	0.99999
1271	3	3.96	31	1,188	967	0.032	38.32	1.23	1.000	0.99997
1273	3	4.07	9	718	865	0.010	79.78	0.83	1.000	0.99998
1282	1	0.83	1	50	692	0.001	50.00	0.07	1.000	0.99999
1283	1	0.32	1	19	343	0.003	19.00	0.06	1.000	0.99999

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
1285	4	6.12	102	5,769	1,097	0.093	56.56	5.26	1.000	0.99988
1312	2	2.20	38	2,239	941	0.040	58.92	2.38	1.027	0.99994
1453	1	1.37	18	1,484	1,801	0.010	82.44	0.82	1.000	0.99998
1454	1	0.47	1	28	932	0.001	28.00	0.03	1.000	0.99999
1523	2	2.77	7	646	740	0.009	92.29	0.87	1.000	0.99998
1843	1	1.68	1	101	1,086	0.001	101.00	0.09	1.000	0.99999
2951	8	5.87	914	81,486	1,407	0.650	89.15	57.91	1.022	0.99866
2961	2	1.77	2	106	647	0.003	53.00	0.16	1.000	0.99999
3081	1	0.67	1	40	577	0.002	40.00	0.07	1.000	0.99999
3221	1	1.10	1	66	1,256	0.001	66.00	0.05	1.000	0.99999
3232	1	1.12	9	604	429	0.021	67.11	1.41	1.000	0.99997
3303	3	3.67	3	220	960	0.003	73.33	0.23	1.000	0.99999
3311	2	2.15	2	129	535	0.004	64.50	0.24	1.000	0.99999
3313	2	1.22	22	861	1,357	0.016	39.14	0.63	1.000	0.99999
3315	6	18.71	13	3,926	1,586	0.008	302.00	2.48	1.000	0.99994
3422	1	1.27	57	4,362	980	0.058	76.53	4.45	1.000	0.99990
3471	1	4.85	89	25,924	468	0.190	291.28	55.39	1.000	0.99872
3472	1	0.33	1	20	1,286	0.001	20.00	0.02	1.000	0.99999
3551	2	2.00	2	120	1,033	0.002	60.00	0.12	1.000	0.99999
3553	1	1.27	1	76	875	0.001	76.00	0.09	1.000	0.99999
3592	3	4.15	3	249	1,754	0.002	83.00	0.14	1.000	0.99999
3593	2	0.90	3	84	943	0.003	28.00	0.09	1.000	0.99999

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
3594	1	0.90	7	383	691	0.010	54.71	0.55	1.000	0.99999
3621	7	9.80	29	2,114	1,562	0.019	72.90	1.35	1.261	0.99997
3661	1	0.55	47	1,554	1,032	0.046	33.06	1.51	1.000	0.99997
3662	3	2.83	3	170	790	0.004	56.67	0.22	1.500	0.99999
3664	2	1.40	44	855	555	0.079	19.43	1.54	1.023	0.99996
3692	1	1.25	70	5,305	410	0.171	75.79	12.94	1.000	0.99970
3694	2	2.18	104	6,851	1,360	0.076	65.88	5.04	2.000	0.99988
3702	1	0.32	45	858	609	0.074	19.07	1.41	1.000	0.99997
3871	1	2.08	1	125	1,359	0.001	125.00	0.09	1.000	0.99999
3878	1	1.55	27	2,522	800	0.034	93.41	3.15	1.000	0.99993
3891	2	2.35	2	141	430	0.005	70.50	0.33	1.000	0.99999
3893	3	3.49	3	210	1,124	0.003	70.00	0.19	1.000	0.99999
3901	3	2.62	23	1,302	885	0.026	56.61	1.47	1.000	0.99997
3902	1	1.92	8	923	90	0.089	115.38	10.26	1.000	0.99976
3903	1	3.42	251	51,471	301	0.834	205.06	171.00	1.000	0.99604
3952	1	1.48	14	1,248	1,278	0.011	89.14	0.98	1.000	0.99998
3981	1	0.33	1	20	1,509	0.001	20.00	0.01	1.000	0.99999
3982	1	1.25	18	1,366	1,773	0.010	75.89	0.77	1.000	0.99998
3991	2	2.40	2	144	735	0.003	72.00	0.20	2.000	0.99999
3992	2	2.65	2	159	168	0.012	79.50	0.95	1.000	0.99998
4031	3	6.31	21	1,567	708	0.030	74.62	2.21	1.000	0.99995
404	1	1.62	169	16,407	169	1.000	97.08	97.08	1.000	0.99775

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
4138	1	0.53	48	1,576	749	0.064	32.83	2.10	1.000	0.99995
4151	1	0.57	10	344	172	0.058	34.40	2.00	1.000	0.99995
4155	1	0.97	26	1,516	2,158	0.012	58.31	0.70	1.000	0.99998
4171	1	1.18	28	2,002	681	0.041	71.50	2.94	1.000	0.99993
4173	1	0.77	6	276	639	0.009	46.00	0.43	1.000	0.99999
4182	1	1.42	1	85	765	0.001	85.00	0.11	1.000	0.99999
4212	4	5.32	109	7,000	820	0.133	64.22	8.54	1.000	0.99980
4222	3	2.72	11	655	1,046	0.011	59.55	0.63	1.375	0.99999
4224	1	0.37	2	44	758	0.003	22.00	0.06	1.000	0.99999
4303	1	0.98	13	773	1,047	0.012	59.46	0.74	1.000	0.99998
4311	1	1.22	5	366	861	0.006	73.20	0.43	1.000	0.99999
4341	3	3.55	49	3,460	1,825	0.027	70.61	1.90	1.065	0.99996
4343	3	3.82	114	9,242	1,034	0.110	81.07	8.94	1.065	0.99979
4361	2	2.38	218	15,744	1,604	0.136	72.22	9.82	1.019	0.99977
4362	1	1.13	94	6,442	827	0.114	68.53	7.79	1.000	0.99982
4363	1	0.80	11	531	1,421	0.008	48.27	0.37	1.000	0.99999
4371	7	33.92	36	2,988	1,540	0.023	83.00	1.94	1.125	0.99996
4373	1	6.42	1	385	791	0.001	385.00	0.49	1.000	0.99999
4385	1	0.65	5	195	1,123	0.004	39.00	0.17	1.000	0.99999
4431	5	8.34	1,398	236,590	1,394	1.003	169.23	169.72	1.003	0.99607
4432	11	27.34	131	20,445	464	0.282	156.07	44.06	1.065	0.99898
4602	1	0.90	1	54	954	0.001	54.00	0.06	1.000	0.99999

CIRCUIT NUMBER	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUST. ON AFFECTED CIRCUITS	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
4692	2	1.84	12	662	475	0.025	55.17	1.39	1.091	0.99997
4714	1	1.92	1	115	328	0.003	115.00	0.35	1.000	0.99999
5601	6	5.83	26	1,015	1,328	0.020	39.04	0.76	1.040	0.99998
5603	3	2.46	108	5,963	1,298	0.083	55.21	4.59	1.009	0.99989
5901	3	1.92	185	8,245	688	0.269	44.57	11.98	1.011	0.99972
5902	2	1.85	968	79,344	945	1.024	81.97	83.96	1.025	0.99806
5904	2	1.41	87	3,686	1,233	0.071	42.37	2.99	1.000	0.99993
5905	1	0.17	1	10	1,876	0.001	10.00	0.01	1.000	0.99999
6021	5	4.19	39	2,078	1,316	0.030	53.28	1.58	1.026	0.99996
6141	1	1.05	1	63	634	0.002	63.00	0.10	1.000	0.99999
6142	1	1.25	19	1,439	312	0.061	75.74	4.61	1.000	0.99989
	NUMBER OF OUTAGES	OUTAGE HOURS REPORTED	CUSTOMERS AFFECTED	CUSTOMER OUTAGE MINUTES	TOTAL CUSTOMERS SERVED	SAIFI	CAIDI	SAIDI	CAIFI	ASAI
Total:	199	297.34	6,351	668,796	166,547	0.038	105.31	4.02	1.013	0.99991