

<https://www.eia.gov/electricity/data/eia861/>

EMPIRE	SAIDI with MED	SAIFI with MED	SAIDI w/out MED	SAIFI w/out MED
2018	141.750	1.253	102.550	1.120
2017	147.720	1.365	116.590	1.220
2016	96.680	1.035	96.680	1.035
2015	115.720	1.338	115.720	1.338
2014	150.760	1.413	127.920	1.366
2013	146.000	1.000	146.000	1.000

UE	SAIDI with MED	SAIFI with MED	SAIDI w/out MED	SAIFI w/out MED
2018	140.000	0.850	86.000	0.720
2017	244.000	1.040	85.000	0.680
2016	294.000	1.130	91.000	0.730
2015	114.000	0.820	96.000	0.770
2014	133.000	0.970	89.000	0.810
2013	371.000	0.990	88.000	0.700

GMO	SAIDI with MED	SAIFI with MED	SAIDI w/out MED	SAIFI w/out MED
2018	181.710	1.230	89.800	0.948
2017	265.600	1.208	77.130	0.755
2016	121.970	1.020	65.980	0.786
2015	204.370	1.550	108.560	1.199
2014	179.870	1.566	143.110	1.397
2013	219.000	1.499	103.000	1.082

KCPL	SAIDI with MED	SAIFI with MED	SAIDI w/out MED	SAIFI w/out MED
2018	199.140	1.235	92.000	0.981
2017	552.910	1.676	90.800	0.896
2016	123.910	0.935	62.190	0.715
2015	452.820	1.230	74.140	1.030
2014	156.120	1.158	96.950	0.945
2013	208.000	1.180	70.000	0.816

#### Column Definitions

This data set groups utilities based on whether they measure reliability using IEEE standards or some other methodology (blue columns for the former; green columns for the latter).

The data set uses acronyms for two major industry metrics:

- *System Average Interruption Duration Index (SAIDI)* measures the time in minutes that the average customer was without power during the year.
- *System Average Interruption Frequency Index (SAIFI)* measures the number of outages experienced by the average customer during the year.

SAIDI and SAIFI are further broken down to reflect the inclusion and exclusion of "major event days", or MEDs, as defined by the IEEE.

Major event days occur when outage metrics exceed normal averages for a given day. Such outages can stem from cyber attacks or vandalism, although in practice they're most often caused by hurricanes, snow storms and other types of severe weather.

- **Utility Number** - Unique ID assigned by EIA, useful for cross-referencing with other data files offered by the EIA
- **Utility Name** - Utility name
- **State** - State for which reliability metrics were derived
- **SAIDI With MED (IEEE)** - Average yearly duration of outages, in minutes, including major event days
- **SAIDI Without MED (IEEE)** - Average yearly duration of outages, in minutes, excluding major event days
- **SAIFI With MED (IEEE)** - Average yearly frequency of outages, including major event days
- **SAIFI Without MED (IEEE)** - Average yearly frequency of outages, excluding major event days
- **Number of Customers (IEEE)** - Number of customers that factored into SAIDI/SAIFI calculations
- **Outages Recorded Automatically (IEEE)** - Whether the system records outage data automatically
- **SAIDI With MED (Other)** - Average yearly duration of outages, in minutes, including major event days
- **SAIDI Without MED (Other)** - Average yearly duration of outages, in minutes, excluding major event days
- **SAIFI With MED (Other)** - Average yearly frequency of outages, including major event days
- **SAIFI Without MED (Other)** - Average yearly frequency of outages, excluding major event days
- **Number of Customers (Other)** - Number of customers that factored into SAIDI/SAIFI calculations
- **Outages Recorded Automatically (Other)** - Whether the system records outage data automatically

<http://data.eia.gov/projects/2015/infrastructure/epms/power-erid/reliability-metrics.html>

**3.13 major event:** Designates a catastrophic event which exceeds reasonable design or operational limits of the electric power system and during which at least 10% of the customers within an operating area experience a sustained interruption during a 24-hour period.

<http://groups.ieee.org/groups/td/dist/sd/doc/2002-08-P1366MajorEventDayLanguageDraft3.pdf>