

Electric power system reliability can be measured and reported in several different ways in order to provide performance trends, both in outage duration and in outage frequency.

The Institute of Electrical and Electronics Engineers (IEEE) defines the generally accepted reliability indices in its standard number 1366, "Guide for Electric Distribution Reliability Indices".

The most common measurement indices which distribution utilities follow and share are those defined by the System Average Interruption Duration Index (**SAIDI**) and the System Average Interruption Frequency Index (**SAIFI**).

SAIDI indicates the total duration of interruptions for the average customer across the electric system during a predefined period of time such as a month or a year. It is commonly measured in minutes or hours of interruption. Mathematically it is the total number of customer-minutes of interruption divided by the total number of customers on the system. As an example, a SAIDI of 100 means the average customer on the electric system over a period of a year would experience a total of 100 minutes of power interruption.

<< We should consider inserting a reference to our tabulated SAIDI numbers along with a Central comment on their numbers for the substation levels >>

SAIFI indicates how often the average customer experiences a sustained interruption over a predefined period of time, typically a year. It is derived by dividing the total number of customer interrupted in a year by the total number of customers served. As an example a SAIFI of 1.00 means the average customer over a year would experience one single outage.

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