

## CHAPTER 25. SUBSTANTIVE RULES APPLICABLE TO ELECTRIC SERVICE PROVIDERS.

### Subchapter C. INFRASTRUCTURE AND RELIABILITY.

#### §25.52. Reliability and Continuity of Service.

- (a) **Application.** This section applies to all electric utilities as defined by the Public Utility Regulatory Act (PURA) §31.002(6) and all transmission and distribution utilities as defined by PURA §31.002(19). The term "utility" as used in this section shall mean an electric utility and a transmission and distribution utility.
- (b) **General.**
- (1) Every utility shall make all reasonable efforts to prevent interruptions of service. When interruptions occur, the utility shall reestablish service within the shortest possible time.
  - (2) Each utility shall make reasonable provisions to manage emergencies resulting from failure of service, and each utility shall issue instructions to its employees covering procedures to be followed in the event of emergency in order to prevent or mitigate interruption or impairment of service.
  - (3) In the event of national emergency or local disaster resulting in disruption of normal service, the utility may, in the public interest, interrupt service to other customers to provide necessary service to civil defense or other emergency service entities on a temporary basis until normal service to these agencies can be restored.
  - (4) Each utility shall maintain adequately trained and experienced personnel throughout its service area so that the utility is able to fully and adequately comply with the service quality and reliability standards.
  - (5) With regard to system reliability, no utility shall neglect any local neighborhood or geographic area, including rural areas, communities of less than 1,000 persons, and low-income areas.
- (c) **Definitions.** The following words and terms, when used in this section, shall have the following meanings unless the context clearly indicates otherwise.
- (1) **Critical loads** — Loads for which electric service is considered crucial for the protection or maintenance of public safety; including but not limited to hospitals, police stations, fire stations, critical water and wastewater facilities, and customers with special in-house life-sustaining equipment.
  - (2) **Interruption classifications:**
    - (A) **Forced** — Interruptions, exclusive of major events, that result from conditions directly associated with a component requiring that it be taken out of service immediately, either automatically or manually, or an interruption caused by improper operation of equipment or human error.
    - (B) **Scheduled** — Interruptions, exclusive of major events, that result when a component is deliberately taken out of service at a selected time for purposes of construction, preventative maintenance, or repair. If it is possible to defer an interruption, the interruption is considered a scheduled interruption.
    - (C) **Outside causes** — Interruptions, exclusive of major events, that are caused by influences arising outside of the distribution system, such as generation, transmission, or substation outages.
    - (D) **Major events** — Interruptions that result from a catastrophic event that exceeds the design limits of the electric power system, such as an earthquake or an extreme storm. These events shall include situations where there is a loss of power to 10% or more of the customers in a region over a 24-hour period and with all customers not restored within 24 hours.
  - (3) **Interruption, momentary** — Single operation of an interrupting device which results in a voltage zero and the immediate restoration of voltage.

## CHAPTER 25. SUBSTANTIVE RULES APPLICABLE TO ELECTRIC SERVICE PROVIDERS.

### Subchapter C. INFRASTRUCTURE AND RELIABILITY.

- (4) **Interruption, sustained** — All interruptions not classified as momentary.
- (5) **Interruption, significant** — An interruption of any classification lasting one hour or more and affecting the entire system, a major division of the system, a community, a critical load, or service to interruptible customers; and a scheduled interruption lasting more than four hours that affects customers that are not notified in advance. A significant interruption includes a loss of service to 20% or more of the system's customers, or 20,000 customers for utilities serving more than 200,000 customers. A significant interruption also includes interruptions adversely affecting a community such as interruptions of governmental agencies, military bases, universities and schools, major retail centers, and major employers.
- (6) **Reliability indices:**
  - (A) **System Average Interruption Frequency Index (SAIFI)** — The average number of times that a customer's service is interrupted. SAIFI is calculated by summing the number of customers interrupted for each event and dividing by the total number of customers on the system being indexed. A lower SAIFI value represents a higher level of service reliability.
  - (B) **System Average Interruption Duration Index (SAIDI)** — The average amount of time a customer's service is interrupted during the reporting period. SAIDI is calculated by summing the restoration time for each interruption event times the number of customers interrupted for each event, and dividing by the total number of customers. SAIDI is expressed in minutes or hours. A lower SAIDI value represents a higher level of service reliability.
- (d) **Record of interruption.** Each utility shall keep complete records of sustained interruptions of all classifications. Where possible, each utility shall keep a complete record of all momentary interruptions. These records shall show the type of interruption, the cause for the interruption, the date and time of the interruption, the duration of the interruption, the number of customers interrupted, the substation identifier, and the transmission line or distribution feeder identifier. In cases of emergency interruptions, the remedy and steps taken to prevent recurrence shall also be recorded. Each utility shall retain records of interruptions for five years.
- (e) **Notice of significant interruptions.**
  - (1) **Initial notice.** A utility shall notify the commission, in a method prescribed by the commission, as soon as reasonably possible after it has determined that a significant interruption has occurred. The initial notice shall include the general location of the significant interruption, the approximate number of customers affected, the cause if known, the time of the event, and the estimated time of full restoration. The initial notice shall also include the name and telephone number of the utility contact person, and shall indicate whether local authorities and media are aware of the event. If the duration of the significant interruption is greater than 24 hours, the utility shall update this information daily and file a summary report.
  - (2) **Summary report.** Within five working days after the end of a significant interruption lasting more than 24 hours, the utility shall submit a summary report to the commission. The summary report shall include the date and time of the significant interruption; the date and time of full restoration; the cause of the interruption, the location, substation and feeder identifiers of all affected facilities; the total number of customers affected; the dates, times, and numbers of customers affected by partial or step restoration; and the total number of customer-minutes of the significant interruption (sum of the interruption durations times the number of customers affected).

**CHAPTER 25. SUBSTANTIVE RULES APPLICABLE TO ELECTRIC SERVICE PROVIDERS.**

**Subchapter C. INFRASTRUCTURE AND RELIABILITY.**

- (f) **System reliability.** Reliability standards shall apply to each utility, and shall be limited to the Texas jurisdiction. A "reporting year" is the 12-month period beginning January 1 and ending December 31 of each year.
- (1) **System-wide standards.** The standards shall be unique to each utility based on the utility's performance, and may be adjusted by the commission if appropriate for weather or improvements in data acquisition systems. The standards will be the average of the utility's performance from the later of reporting years 1998, 1999, and 2000 or the first three reporting years the utility is in operation.
- (A) **SAIFI.** Each utility shall maintain and operate its electric distribution system so that its SAIFI value shall not exceed its system-wide SAIFI standard by more than 5.0%.
- (B) **SAIDI.** Each utility shall maintain and operate its electric distribution system so that its SAIDI value shall not exceed its system-wide SAIDI standard by more than 5.0%.
- (2) **Distribution feeder performance.** The commission will evaluate the performance of distribution feeders with ten or more customers after each reporting year. Each utility shall maintain and operate its distribution system so that no distribution feeder with ten or more customers sustains a SAIDI or SAIFI value for a reporting year that is more than 300% greater than the system average of all feeders during any two consecutive reporting years.
- (3) **Enforcement.** The commission may take appropriate enforcement action, including action against a utility, if the system and feeder performance is not operated and maintained in accordance with this subsection. In determining the appropriate enforcement action, the commission shall consider:
- (A) the feeder's operation and maintenance history;
- (B) the cause of each interruption in the feeder's service;
- (C) any action taken by a utility to address the feeder's performance;
- (D) the estimated cost and benefit of remediating a feeder's performance; and
- (E) any other relevant factor as determined by the commission.