

CHAPTER 25. SUBSTANTIVE RULES APPLICABLE TO ELECTRIC SERVICE PROVIDERS.

Subchapter S. WHOLESALE MARKETS

§25.508. Reliability Standard for the Electric Reliability Council of Texas (ERCOT) Region.

- (a) **Definitions.** The following words and terms, when used in this section, have the following meanings, unless the context indicates otherwise.
- (1) **Exceedance tolerance** -- the maximum acceptable percentage of simulations in which the modeled ERCOT system experiences a loss of load event that exceeds the threshold for a given criterion of the reliability standard.
 - (2) **Loss of load event** -- an occurrence when the system-wide firm load plus minimum operating reserves required to avoid an energy emergency alert level three event is greater than the available resource capacity to serve that load, resulting in involuntary load shed.
 - (3) **Transmission operator** -- has the same meaning as defined in the ERCOT protocols.
 - (4) **Weatherization effectiveness** -- the assumed percentage reduction in the amount of weather-related unplanned outages for generation resources and energy storage resources included in the model, due to compliance with the weatherization standards in §25.55 of this title (relating to Weather Emergency Preparedness).
- (b) **Reliability standard for the ERCOT region.** The bulk power system for the ERCOT region meets the reliability standard if an ERCOT probability-based model simulation demonstrates that the system meets each of the criteria provided in this subsection.
- (1) **Frequency.** The expected loss of load events for the ERCOT region must be equal to or less than one event per ten years on average, i.e., 0.1 loss of load expectation (LOLE).
 - (2) **Duration.** The maximum expected length of a loss of load event for the ERCOT region, measured in hours, must be less than 12 hours, with a 1.00 percent exceedance tolerance.
 - (3) **Magnitude.** The expected highest level of load shed during a loss of load event for the ERCOT region, measured as the average lost load for a given hour, must be less than the maximum number of megawatts of load shed that can be safely rotated during a loss of load event, as determined by ERCOT, in consultation with commission staff and the transmission operators, with a 1.00 percent exceedance tolerance. Beginning in 2024, on or before December 1 of each year, ERCOT must file the maximum number of megawatts of load shed that can be safely rotated during a loss of load event and a summary of the methodology used to calculate this value.
- (c) **Reliability assessment.** Beginning January 1, 2026, ERCOT must initiate an assessment to determine whether the bulk power system for the ERCOT region is meeting the reliability standard and is likely to continue to meet the reliability standard for the three years following the date of assessment. The assessment must be conducted at least once every three years.
- (1) **Modeling assumptions.**
 - (A) Before conducting the assessment, ERCOT must file a comprehensive list of proposed modeling assumptions to be used in the reliability assessment. The proposed assumptions must include:
 - (i) the number of historic weather years that will be included in the modeling;
 - (ii) the amount of new resources and retirements, in megawatts, listed by resource type;
 - (iii) the weatherization effectiveness; and
 - (iv) any other assumptions that would impact the modeling results, along with an explanation of the possible impact of the additional assumptions.
 - (B) Commission staff will provide interested persons with at least 30 days from the date ERCOT files its proposed modeling assumptions to file comments recommending modifications to ERCOT's proposed modeling assumptions. Commission staff may include filing requirements or additional questions for comment.

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- (C) After reviewing filed comments, ERCOT, in consultation with commission staff, must file its final recommended modeling assumptions for commission review. Commission staff may provide a separate recommendation on ERCOT's final recommended modeling assumptions for the commission's consideration.
- (2) **Assessment components.**
 - (A) ERCOT's assessment must include review and analysis of the resource fleet, loads, and other system characteristics for the ERCOT region for the following points in time:
 - (i) the current year's system configuration; and
 - (ii) the expected system configuration three years from the date of the current year's system analysis.
 - (B) The assessment results must include, at a minimum, the following metrics for each point in time:
 - (i) the LOLE;
 - (ii) the probability of a loss of load event exceeding the duration threshold established in subsection (b)(2) of this section;
 - (iii) the probability of a loss of load event exceeding the magnitude threshold established in subsection (b)(3) of this section;
 - (iv) the expected unserved energy; and
 - (v) the normalized expected unserved energy.
- (3) **Commission review and determination.**
 - (A) ERCOT must file its assessment with the commission, including any information required under subparagraph (C)(i) of this paragraph.
 - (B) Commission staff will provide interested persons with at least 30 days from the date ERCOT files its assessment to file comments on ERCOT's assessment. Commission staff may include filing requirements or additional questions for comment.
 - (C) If the assessment shows that any reviewed system fails to meet the reliability standard described in subsection (b) of this section:
 - (i) ERCOT must provide the commission with a summary explanation of any identified deficiencies and its supporting analysis. ERCOT must also provide the commission with a menu of proposed recommended market design changes, including a primary recommendation, that are intended to address the identified deficiencies. ERCOT must provide the commission with the expected system costs associated with each of its proposed recommended changes;
 - (ii) the independent market monitor must conduct an independent review of ERCOT's proposed recommended market design changes, including associated expected system costs for each proposed recommended change, and file its review no later than the deadline established in subparagraph (B) of this paragraph; and
 - (iii) commission staff must provide a recommendation to the commission, considering expected system costs and reliability benefits, on whether any market design changes or other changes may be necessary to address the deficiency.
 - (D) The commission will review ERCOT's assessment and any recommendations, the independent market monitor's review, commission staff's recommendations, and stakeholder comments to determine whether any market design changes may be necessary.