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| PGRR Number | [122](https://www.ercot.com/mktrules/issues/PGRR122) | PGRR Title | Reliability Performance for Loss of Load |

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| Date | June XX, 2025 |

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| Submitter’s Information | |
| Name | Jeff Billo |
| E-mail Address | [jbillo@ercot.com](mailto:jbillo@ercot.com) |
| Company | ERCOT |
| Phone Number | 512-248-6334 |
| Cell Number |  |
| Market Segment | Not applicable |

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| Comments |

ERCOT submits these comments on Planning Guide Revision Request (PGRR) 122 on top of LCRA’s February 21, 2025 comments to make the following edits based on the results of ERCOT’s Loss of Load Study and stakeholder feedback:

1. Based on the results of ERCOT’s Loss of Load Study[[1]](#footnote-1), the maximum Load loss limit of 1,000 MW as originally proposed in PGRR122 is updated to a limit of 2,600 MW.
2. The proposed planning criteria is being limited to Large Load Interconnection Studies that have not met certain milestones by December 1, 2025. As such, the planning criteria will not be applicable to other types of planning studies, including TSPs’ and ERCOT’s annual planning assessments. However, to the extent that these studies show violations of existing ERCOT or North American Electric Reliability Corporation (NERC) planning criteria, it is expected that they will plan transmission improvement projects accordingly. Additionally, ERCOT will continue to investigate the need to have the proposed planning criteria apply to these other planning studies.
3. The loss of Load limit should not include Direct Current Tie (DC Tie) Load. Nodal Protocol Revision Request (NPRR) 1034, Frequency-Based Limits on DC Tie Imports or Exports, provides a mechanism for ERCOT to limit DC Tie Exports for frequency stability needs. Therefore, ERCOT clarified that any loss of DC Tie Load in the simulation is not included in the calculation of total Load loss for these criteria.
4. ERCOT made additional edits to clarify the system conditions and contingency events for which the proposed planning criteria would be applied.
5. Finally, paragraphs (3) and (4) of Section 9.2.5, Required Interconnection Equipment, are superseded by the language added in new Section 4.1.1.9, Maximum Load Loss Criteria, and were removed.

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| Revised Cover Page Language |

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| **Planning Guide Sections Requiring Revision** | 4.1.1.2, Reliability Performance Criteria  4.1.1.9, Maximum Load Loss Criteria  9.2.5, Required Interconnection Equipment |
| **Revision Description** | This Planning Guide Revision Request establishes a new reliability performance criteria for Large Load Interconnection Studies that no more than 2,600 MW of Load may be lost for any single contingency, and also specifies how loss of Load is calculated for this criteria. |

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| Revised Proposed Guide Language |

**4.1.1.2 Reliability Performance Criteria**

(1) The following reliability performance criteria (summarized in Table 1: ERCOT-specific Reliability Performance Criteria, below) shall be applicable to planning analyses in the ERCOT Region:

(a) With all Facilities in their normal state, following a common tower outage with or without a single line-to-ground fault, all Facilities shall be within their applicable Ratings, the ERCOT System shall remain stable with no cascading or uncontrolled Islanding, and there shall be no non-consequential Load loss;

(b) With all Facilities in their normal state, following an outage of a DC Tie Resource or DC Tie Load with or without a single line-to-ground fault, all Facilities shall be within their applicable Ratings, the ERCOT System shall remain stable with no cascading or uncontrolled Islanding, and there shall be no non-consequential Load loss;

(c) With any single generating unit unavailable, followed by Manual System Adjustments, followed by a common tower outage or outage of a DC Tie Resource or DC Tie Load with or without a single line-to-ground fault, all Facilities shall be within their applicable Ratings, the ERCOT System shall remain stable with no cascading or uncontrolled Islanding, and there shall be no non-consequential Load loss;

(d) With any single transformer, with the high voltage winding operated at 300 kV or above and low voltage winding operated at 100 kV or above unavailable, followed by Manual System Adjustments, followed by a common tower outage, or the contingency loss of a single generating unit, transmission circuit, transformer, shunt device, FACTS device, or DC Tie Resource or DC Tie Load with or without a single line-to-ground fault, all Facilities shall be within their applicable Ratings, the ERCOT System shall remain stable with no cascading or uncontrolled Islanding, and there shall be no non-consequential Load loss. An operational solution may be planned on a permanent basis to resolve a performance deficiency under this condition; and

(e) With any single DC Tie Resource or DC Tie Load unavailable, followed by Manual System Adjustments, followed by a common tower outage, or the contingency loss of a single generating unit, transmission circuit, transformer, shunt device, FACTS device, or DC Tie Resource or DC Tie Load, with or without a single line-to-ground fault, all Facilities shall be within their applicable Ratings, the ERCOT System shall remain stable with no cascading or uncontrolled Islanding, and there shall be no non-consequential Load loss. An operational solution may be planned on a permanent basis to resolve a performance deficiency under this condition.

| **Initial Condition** | | **Event** | **Facilities within Applicable Ratings and System Stable with No Cascading or Uncontrolled Outages** | **Non-consequential Load Loss Allowed** |
| --- | --- | --- | --- | --- |
| 1 | Normal System | Common tower outage, DC Tie Resource outage, or DC Tie Load outage | Yes | No |
| 2 | Unavailability of a generating unit, followed by Manual System Adjustments | Common tower outage, DC Tie Resource outage, or DC Tie Load outage | Yes | No |
| 3 | Unavailability of a transformer with the high voltage winding operated at 300 kV or above and low voltage winding operated at 100 kV or above, followed by Manual System Adjustments | Common tower outage; or  Contingency loss of one of the following:  1. Generating unit;  2. Transmission circuit;  3. Transformer;  4. Shunt device;  5. FACTS device; or  6. DC Tie Resource or DC Tie Load | Yes | No |
| 4 | Unavailability of a DC Tie Resource or DC Tie Load, followed by Manual System Adjustments | Common tower outage; or  Contingency loss of one of the following:  1. Generating unit;  2. Transmission circuit;  3. Transformer;  4. Shunt device;  5. FACTS device; or  6. DC Tie Resource or DC Tie Load | Yes | No |

Table 1: ERCOT-specific Reliability Performance Criteria

(2) ERCOT and the TSPs shall endeavor to resolve any performance deficiencies as appropriate. If a Transmission Facility improvement is required to meet the criteria in this Section 4.1.1.2, but the improvement cannot be implemented in time to resolve the performance deficiency, an interim solution may be used to resolve the deficiency until the improvement has been implemented.

(a) A Remedial Action Scheme (RAS) shall not be planned to resolve a planning criteria performance deficiency unless it is expected that system conditions will change such that the RAS will no longer be needed within the next five years.

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| ***[PGRR113: Replace item (a) above with the following upon system implementation of NPRR1198:]***  (a) A Remedial Action Scheme (RAS) or Constraint Management Plan (CMP) shall not be planned to resolve a planning criteria performance deficiency unless it is expected that system conditions will change such that the RAS or CMP will no longer be needed within the next five years. |

4.1.1.9 Maximum Load Loss Criteria

(1) The maximum Load loss criteria in this section only applies to Large Load Interconnection Studies (LLIS) that have not met both of the following conditions:

(a) The LLIS has been deemed complete pursuant to paragraph (6) of Section 9.4, LLIS Report and Follow-up, by December 1, 2025; and

(b) ERCOT has received confirmation from the interconnecting TSP that by December 1, 2025:

(i) The Interconnecting Large Load Entity for the Load that is the subject of the LLIS has executed all required interconnection agreements or equivalent service extension agreements; or

(ii) The Municipally Owned Utility (MOU) or Electric Cooperative (EC) of the Load that is the subject of the LLIS has sent a letter from a duly authorized person confirming its intent to construct and operate applicable Large Load and interconnect such Large Load to its transmission system.

(2) For the purposes of this section, the total Load loss for a contingency event includes consequential Load loss, the response of voltage sensitive Load, and Load that is disconnected from the ERCOT System by end-user equipment but does not include DC Tie Load.

(3) For any operating condition in category P1, P2, P4, P5, or P7 of the NERC Reliability Standard addressing Transmission System Planning Performance Requirements, or following a common tower outage of 0.5 miles or greater, the total Load loss shall be less than 2,600 MW.

(4) With any of the following Facilities unavailable, followed by Manual System Adjustments, followed by a common tower outage with or without a single line-to-ground fault or the contingency loss of a transmission circuit, transformer, shunt device, or FACTS device, with or without a three phase fault, the total Load loss for the second event shall be less than 2,600 MW:

(a) Any single transformer, with the high voltage winding operated at 300 kV or above and low voltage winding operated at 100 kV or above; or

(b) Any single generating unit.

(5) In an off-peak system condition, with any of the following Facilities unavailable, followed by Manual System Adjustments, followed by a common tower outage with or without a single line-to-ground fault or the contingency loss of a transmission circuit, transformer, shunt device, or FACTS device, with or without a three phase fault, the total Load loss for the second event shall be less than 2,600 MW:

(a) Any double-circuit transmission line consisting of two circuits sharing a tower of 0.5 miles or greater where both circuits must be removed from service for a maintenance outage; or

(b) Any transmission circuit, transformer, shunt device, or FACTS device.

(6) The total Load loss in paragraphs (4) and (5) above does not include the total Load loss resulting from the unavailability of any Facility included in paragraphs (4) and (5) above, prior to Manual System Adjustments.

9.2.5 Required Interconnection Equipment

(1) Each Service Delivery Point for a Large Load not co-located with a Generation Resource, Energy Storage Resource (ESR), or Settlement Only Generator (SOG) interconnected at transmission voltage to the ERCOT System must have a permanent configuration consisting of one or more breakers capable of interrupting fault current to isolate the Large Load from the ERCOT System without interrupting flow on the associated transmission lines. The breakers shall be under the remote control of the applicable TO.

(2) Each Large Load co-located with a Generation Resource, ESR, or SOG interconnected at transmission voltage to the ERCOT System must have a permanent configuration consisting of one or more breakers capable of interrupting fault current to isolate the Large Load from the ERCOT System without isolating any of the co-located generators. The breakers shall be remotely controllable at the direction of the applicable QSE.

1. <https://www.ercot.com/files/docs/2025/05/15/Large_Load_Loss_Analysis_051625_LLWG.pptx> [↑](#footnote-ref-1)