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| PGRR Number | [098](http://www.ercot.com/mktrules/issues/pgrr098) | PGRR Title | Consideration of Load Shed in Transmission Planning Criteria |

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| Date | January 21, 2022 |

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| Submitter’s Information |
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| Cell Number |  |
| Market Segment | Investor Owned Utility (IOU) |

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| Comments |

CenterPoint Energy Houston Electric, LLC (CenterPoint Energy) appreciates the opportunity to comment on this Planning Guide Revision Request (PGRR). CenterPoint Energy offers its proposed revisions to paragraph (1) of Section 4.1.1.7, Maintenance Outage Reliability Criteria.

* CenterPoint Energy proposes to remove single generating unit from paragraph (1) of Section 4.1.1.7 as it is already captured as part of Planning Guide Section 4.1.1.2 paragraph (1)(c).
* CenterPoint Energy proposes to remove DC Tie Resource or DC Tie Load from paragraph (1) of Section 4.1.1.7 as it is already captured as part of Planning Guide Section 4.1.1.2 paragraph (1)(e).
* CenterPoint Energy is quite familiar with the reality of trying to perform maintenance outages during off-peak Load conditions. CenterPoint Energy has several Load pockets of mostly industrial Load which does not vary greatly throughout the year and are continually challenged to plan required outages on the system. Therefore, CenterPoint Energy strongly supports the move to trying to help better plan the system to allow maintenance outages while maintaining the reliability of the system. More than 67% of the 4000 miles of transmission lines in the CenterPoint Energy system are on double circuit towers, so the addition of a common tower outage to the initial outage condition will have a significant impact to the CenterPoint Energy analysis. However, when performing maintenance outages on circuits that are on common tower structures, CenterPoint Energy operational practice is that it normally takes out the circuit on which the maintenance is being performed while keeping the other circuit energized. It is true that there are double circuit structure designs that would require taking both circuits out of service, but the vast majority are not. Therefore, it is not prudent to design the system for all common tower outages plus another common tower outage. Proposing a new criteria requiring the assumption that maintenance outages take out both circuits of a common tower in all circumstances will likely have unintended consequences.

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| Revised Cover Page Language |

None

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| Proposed Guide Language Revision |

4.1.1.1 Planning Assumptions

(1) A contingency loss of an element includes the loss of an element with or without a single line-to-ground or three-phase fault.

(2) A common tower outage is the contingency loss of a double-circuit transmission line consisting of two circuits sharing a tower for 0.5 miles or greater.

(3) Unavailability of a single generating unit includes an entire Combined Cycle Train, if no part of the train can operate with one of the units Off-Line as provided in the Resource Registration data.

(4) The contingency loss of a single generating unit shall include the loss of an entire Combined Cycle Train, if that is the expected consequence.

(5) The following assumptions may be applied to the SSWG base cases for use in planning studies:

(a) Reasonable variations of Load forecast;

(b) Reasonable variations of generation commitment and dispatch applicable to transmission planning analyses on a case-by-case basis may include, but are not limited to, the following methods:

(i) Production cost model simulation, security constrained optimal power flow, or similar modeling tools that analyze the ERCOT System using hourly generation dispatch assumptions;

(ii) Modeling of high levels of intermittent generation conditions; or

(iii) Modeling of low levels of or no intermittent generation conditions.

(6) Assumed Direct Current Tie (DC Tie) imports and exports will be curtailed as necessary to meet reliability criteria in planning studies.

(7) Manual System Adjustments shall not increase the amount of consequential Load loss following 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.

4.1.1.7 Maintenance Outage Reliability Criteria

(1) In an off-peak system condition, with any common tower outage for those circuits where both circuits of a common tower must be taken out for a maintenance outage, transmission circuit, transformer, shunt device, or FACTS device unavailable, followed by Manual System Adjustments, followed by a common tower outage, or the contingency loss of a transmission circuit, transformer, shunt device, or FACTS device, 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.

(2) An off-peak system condition occurs outside of the Peak Load Season.

(3) The initial assessments, including proposed solutions, associated with criteria in paragraph (1) above, shall be completed no later than December 31, 2023.