|  |  |  |  |
| --- | --- | --- | --- |
| PGRR Number | [113](https://www.ercot.com/mktrules/issues/PGRR113) | PGRR Title | Related to NPRR1198, Congestion Mitigation Using Topology Reconfigurations |
| Date of Decision | | July 25, 2024 | |
| Action | | Approved | |
| Timeline | | Normal | |
| Estimated Impacts | | Cost/Budgetary: None  Project Duration: No project required | |
| Effective Date | | Upon implementation of Nodal Protocol Revision Request (NPRR) 1198, Congestion Mitigation Using Topology Reconfigurations | |
| Priority and Rank Assigned | | Not applicable | |
| Planning Guide Sections Requiring Revision | | 3.1.4.1.1, Regional Transmission Plan Cases  4.1.1.2, Reliability Performance Criteria | |
| Related Documents Requiring Revision/Related Revision Requests | | NPRR1198, Congestion Mitigation Using Topology Reconfigurations  Nodal Operating Guide Revision Request (NOGRR) 258, Related to NPRR1198, Congestion Mitigation Using Topology Reconfigurations | |
| Revision Description | | This Planning Guide Revision Request (PGRR) revises the Planning Guide to provide that ERCOT will first consider transmission needs without Constraint Management Plan (CMP) actions in its Regional Transmission Plan studies, and will then only model a CMP in the Regional Transmission Plan in certain limited circumstances. A CMP will not be planned to resolve a planning criteria performance deficiency unless it is expected that system conditions will change such that the CMP will no longer be needed within the next five years. | |
| Reason for Revision | | [Strategic Plan](https://www.ercot.com/files/docs/2023/08/25/ERCOT-Strategic-Plan-2024-2028.pdf) Objective 1 – Be an industry leader for grid reliability and resilience  [Strategic Plan](https://www.ercot.com/files/docs/2023/08/25/ERCOT-Strategic-Plan-2024-2028.pdf) Objective 2 - Enhance the ERCOT region’s economic competitiveness with respect to trends in wholesale power rates and retail electricity prices to consumers  [Strategic Plan](https://www.ercot.com/files/docs/2023/08/25/ERCOT-Strategic-Plan-2024-2028.pdf) Objective 3 - Advance ERCOT, Inc. as an independent leading industry expert and an employer of choice by fostering innovation, investing in our people, and emphasizing the importance of our mission  General system and/or process improvement(s)  Regulatory requirements  ERCOT Board/PUCT Directive  *(please select ONLY ONE – if more than one apply, please select the ONE that is most relevant)* | |
| Justification of Reason for Revision and Market Impacts | | In transmission planning studies, ERCOT does not use CMPs to resolve reliability criteria performance deficiencies, except in the limited circumstances described in this PGRR. Instead, transmission solutions are utilized to address the transmission needs identified in planning studies. During the stakeholder discussions for NPRR1198 and NOGRR258, stakeholders identified the need to clarify the Planning Guide language describing ERCOT’s practices in modeling CMPs in planning studies. This PGRR clarifies and codifies the transmission planning assumptions related to CMPs. | |
| ROS Decision | | On 12/7/23, ROS voted unanimously to table PGRR113 and refer the issue to the Planning Working Group (PLWG). All Market Segments participated in the vote.  On 4/4/24, ROS voted unanimously to recommend approval of PGRR113 as submitted. All Market Segments participated in the vote.  On 5/2/24, ROS voted to endorse and forward to TAC the 4/4/24 ROS Report and the 4/30/24 Revised Impact Analysis for PGRR113. There was one abstention from the Independent Generator (Calpine) Market Segment. All Market Segments participated in the vote. | |
| Summary of ROS Discussion | | On 12/7/23, participants reviewed PGRR113.  On 4/4/24, there was no discussion on PGRR113.  On 5/2/24, participants reviewed the 4/30/24 Revised Impact Analysis for PGRR113. | |
| TAC Decision | | On 5/22/24, TAC voted to recommend approval of PGRR113 as recommended by ROS in the 5/2/24 ROS Report. There were four abstentions from the Cooperative (STEC), Independent Generator (2) (Jupiter Power, Calpine) and IOU (CNP) Market Segments. All Market Segments participated in the vote. | |
| Summary of TAC Discussion | | On 5/22/24, there was no additional discussion beyond TAC review of the items below. | |
| TAC Review/Justification of Recommendation | | Revision Request ties to Reason for Revision as explained in Justification  Impact Analysis reviewed and impacts are justified as explained in Justification  Opinions were reviewed and discussed  Comments were reviewed and discussed (if applicable)  Other: (explain) | |
| ERCOT Board Decision | | On 6/18/24, the ERCOT Board voted unanimously to recommend approval of PGRR113 as recommended by TAC in the 5/22/24 TAC Report. | |
| PUCT Decision | | On 7/25/24, the PUCT approved PGRR113 and accompanying ERCOT Market Impact Statement as presented in Project No. 54445, Review of Protocols Adopted by the Independent Organization. | |
|  | |  | |
| **Opinions** | | | |
| Credit Review | | Not applicable | |
| Independent Market Monitor Opinion | | IMM supports approval of PGRR113. | |
| ERCOT Opinion | | ERCOT supports approval of PGRR113. | |
| ERCOT Market Impact Statement | | ERCOT Staff has reviewed PGRR113 and believes that it provides a positive market impact by clarifying and codifying the transmission planning assumptions related to CMPs. | |

|  |  |
| --- | --- |
| Sponsor | |
| Name | Ping Yan |
| E-mail Address | [Ping.Yan@ercot.com](mailto:Ping.Yan@ercot.com) |
| Company | ERCOT |
| Phone Number | 512-248-4153 |
| Cell Number |  |
| Market Segment | Not Applicable |

|  |  |
| --- | --- |
| **Market Rules Staff Contact** | |
| **Name** | Erin Wasik-Gutierrez |
| **E-Mail Address** | [erin.wasik-gutierrez@ercot.com](mailto:erin.wasik-gutierrez@ercot.com) |
| **Phone Number** | 413-886-2474 |
|  |  |
| **Comments Received** | |
| **Comment Author** | **Comment Summary** |
| None |  |
|  |  |
| **Market Rules Notes** | |

Please note that the following PGRR(s) also propose revisions to the following Section(s):

* PGRR115, Related to NPRR1234, Interconnection Requirements for Large Loads and Modeling Standards for Loads 25 MW or Greater
* Section 4.1.1.2

|  |
| --- |
| Proposed Guide Language Revision |

**3.1.4.1.1 Regional Transmission Plan Cases**

(1) The starting base cases for the Regional Transmission Plan development are created by removing all Tier 1, 2, and 3 projects that have not received RPG acceptance or, if applicable, ERCOT endorsement from the most recent SSWG base cases.

(2) ERCOT shall set all non-seasonal Mothballed Generation Resources to out of service in the Regional Transmission Plan reliability base cases. ERCOT shall add proposed Generation Resources that have met the criteria for inclusion in Section 6.9, Addition of Proposed Generation to the Planning Models, to the Regional Transmission Plan base cases.

(3) ERCOT shall update the Regional Transmission Plan reliability and economic base cases to reflect any updates to the amount of Switchable Generation Resource (SWGR) capacity available to the ERCOT Region.

(4) ERCOT may, in its discretion, set a Generation Resource to out of service in the Regional Transmission Plan base cases prior to receiving a Notification of Suspension of Operations (NSO) if the Resource Entity notifies ERCOT of its intent to retire/mothball the Generation Resource and/or makes a public statement of its intent to retire/mothball the Generation Resource. ERCOT must provide reasonable advance notice to the RPG of any proposed Generation Resource retirements/mothballs and allow an opportunity for stakeholder comments.

(a) ERCOT will post and maintain the current list of Generation Resources that will be set to out of service pursuant to paragraph (4) above on the ERCOT website.

(5) In its Regional Transmission Plan studies, ERCOT shall first consider transmission needs without Remedial Action Scheme (RAS) or Constraint Management Plan (CMP) actions. After evaluating these needs, ERCOT may model a RAS or CMP in the Regional Transmission Plan cases only if ERCOT’s initial studies did not identify a transmission project to exit the RAS or CMP, or if a transmission project to exit the RAS or CMP is not expected to be in service by the season and year the case represents.

(6) ERCOT may, in its discretion, make other adjustments to any Regional Transmission Plan base case to ensure that the case reaches a solution. ERCOT must provide reasonable advance notice to the RPG of any proposed adjustments and an opportunity for stakeholder comment on them.

**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 Direct Current Tie (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) 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.