



Establish Multi-Value Criteria for Resiliency-Related Transmission Project Evaluation

ERCOT
Grid Planning

April 2025 PLWG

Background: GRRRA

- SB1281 (87th Leg.) added Public Utility Regulatory Act § 39.159 which requires ERCOT to conduct a biennial *Grid Reliability and Resiliency Assessment* (GRRRA) of the ERCOT System's reliability in extreme weather scenarios by:
 - “consider[ing] the impact of different levels of thermal and renewable generation availability; and
 - recommend[ing] transmission projects that may increase the grid 's reliability in extreme weather scenarios.”
- Public Utility Commission of Texas (PUCT) added requirement for GRRRA to 16 Texas Administrative Code § 25.101(b)(3)(E)

Background: Resiliency Plus Factor

- In Project 53403, PUCT adopted 16 TAC § 25.101(b)(3)(A)(iii) to allow reliability or economic transmission projects that do not fully meet such criteria to nevertheless be eligible for approval if they address a resiliency issue identified in the GRRRA and the combination of resiliency benefits and economic savings or reliability benefits is sufficient
- PUCT approval criteria in 16 TAC § 25.101(b)(3)(A)(iii):
 - I. “the margin by which the transmission project was unable to demonstrate sufficient economic savings or reliability benefits to merit approval on those grounds;
 - II. whether the resiliency benefits the transmission project would provide by reducing the impacts to customers of potential outages caused by regional extreme weather scenarios are sufficient to compensate for the project’s inability to demonstrate sufficient economic savings or reliability benefits to merit approval on those grounds[;]
 - III. the cost effectiveness of the transmission project’s ability to address the resiliency issue identified by ERCOT compared to other possible solutions[; and]
 - IV. other factors listed in PURA §37.056(c), as appropriate.”

Background: Revision Requests

- Effective April 1, 2025, Planning Guide Revision Request (PGRR) 117 established requirements for the GRRR in Planning Guide § 3.1.1.6 and resiliency criteria in Planning Guide § 4.1.2
- ERCOT published the inaugural biennial GRRR in December 2024 under the requirements established in 16 TAC § 25.101(b)(3)(E)
- ERCOT plans to submit a Nodal Protocol Revision Request (NPRR) to establish new planning criteria to address the process for the resiliency “plus factor”: i.e., whether a project that addresses a resiliency issue provides sufficient benefit balanced with economic savings or reliability benefits

Multi-Value Criteria for Resiliency-Related Transmission Project Evaluation

- To meet the multi-value criteria:
 1. The project must address a resiliency issue identified in a GRRRA; and
 2. The project must meet at least one of the below criteria as demonstrated using the cases published in the Regional Transmission Plan (RTP):
 - a. Prevent thermal loading above 90% of the applicable ratings for planning events in which non-consequential load loss is prohibited as established by the Planning Guide and NERC Reliability Standards;
 - b. Prevent voltage levels within 0.01 per unit (p.u.) of the applicable limits for planning events in which non-consequential load loss is prohibited as established by the Planning Guide and NERC Reliability Standards;
 - c. Result in levelized ERCOT-wide annual production cost savings of at least 90% of the first-year annual revenue requirement of the project; or
 - d. Result in levelized system-wide consumer energy cost reductions of at least 90% of the average of the first three years' annual revenue requirement of the project

Questions/Comments

- Please send questions/comments to:
Ping.Yan@ercot.com