



Addition of Generation to the Planning Models

ERCOT
Grid Planning

February 2025 PLWG

Background

- HB5066 (88th Leg.) introduced a new requirement to consider loads for which the electric utility has yet to sign an interconnection agreement, as determined by the electric utility responsible for serving the load
- This new requirement and the unprecedented economic growth in Texas resulted in more than 50 GW of additional forecasted load (including large loads) incorporated in the 2024 RTP and the forecasted summer peak demand for 2030 exceeded 150 GW
- The significant increase in forecasted load resulted in a generation shortage in the 2024 RTP planning models which required adding generation beyond the normal planning guide assumptions
- ERCOT plans to submit Planning Guide Revision Requests for the needed changes in the planning assumptions/processes

Problem Statement

- Ensure sufficient generation is available in the planning models to meet the forecasted demand
 - Reliability cases (RTP, SSWG, DWG)
 - Economic cases (8760 hours including peak net load hours where solar is not available)
- Solar accounts for approximately 41% of the capacity in the interconnection queue as of December 31, 2024, and peak net load hours may face more challenges in generation availability

Generation Assumptions Used in the 2024 Regional Transmission Plan (RTP)

- Add Generation Resources in the interconnection queue that haven't met Planning Guide Section 6.9(1) requirements yet, but
 - Have signed the Interconnection Agreement
 - Are dispatchable Generation Resources without a signed Interconnection Agreement that have either completed or started the Full Interconnection Study (FIS)
- Add additional dispatchable Generation Resources not in the interconnection queue in the areas with significant amount of large load additions

Proposed Solutions

- Leave Planning Guide Section 6.9(1) as is but add additional language in Planning Guide Section 6.9 to outline the additional generators that may be included in the planning models to ensure sufficient generation is available
- All planning model development processes will follow the proposed methodology to achieve consistencies between SSWG, RTP, and DWG cases
- Add additional sensitivity evaluations in the RPG review process

Additional Generation to be Added to the Planning Models

- Large generators not meeting Planning Guide Section 6.9(1) requirements may be added to the planning models in the order below
 - a) Large generators that meet the conditions of paragraph (1) of Section 5.2.1, Applicability, and have a signed SGIA submitted by the TSP via the online RIOO system
 - b) Large generators that meet the conditions of paragraph (1) of Section 5.2.1, Applicability, and have completed the FIS
 - c) Large generators that meet the conditions of paragraph (1) of Section 5.2.1, Applicability, and have started the FIS
 - d) Additional generation based on ERCOT's discretion
- Dynamic models will be required for all the large generators in categories a), b), and c) that are added to the planning models

Additional RPG Sensitivity Evaluations

- If generators outside of the current interconnection queue are added in the base cases that ERCOT uses for Tier 1 RPG projects review
 - ERCOT will evaluate the impacts related to generators in or near the study area that are not in the current interconnection queue
 - The evaluation results shall be included in the final recommendations

Questions/Comments

- Please send questions/comments to:
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