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PROJECT NO. 55718

RELIABILITY PLAN FOR THE PERMIAN BASIN REGION UNDER PURA § 39.167	**§ § §**	**PUBLIC UTILITY COMMISSION OF TEXAS**

ERCOT'S MAY 2024 STATUS REPORT

Pursuant to the *Order Directing ERCOT to Develop a Reliability Plan for the Permian Basin Region* issued by the Commission in this Project on December 14, 2023, Electric Reliability Council of Texas, Inc. (ERCOT) hereby submits the attached monthly status report regarding its development of the reliability plan for the Permian Basin.

Respectfully submitted,

/s/ Anna Berlin

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ATTORNEYS FOR ELECTRIC RELIABILITY COUNCIL OF TEXAS, INC.

Permian Basin Reliability Plan Study - Monthly Update

ercot

Public Utility Commission of Texas
May 1, 2024

Status Update

- ERCOT has had multiple meetings with the TSPs to discuss the transmission projects needed to accommodate the forecasted Permian Basin load.
  - April 2, April 8, April 10, and April 30, 2024
- ERCOT presented a status update to the Regional Planning Group (RPG) on April 9, 2024, which addressed:
  - The initial set of potential local transmission projects (i.e., those located in the Permian Basin region) needed to serve the Permian Basin region load growth
  - Updated study scope to reflect that TSPs will now be responsible for identifying the 69-kV level transmission upgrades and steady-state reactive devices to allow ERCOT to focus on the larger projects. TSPs are better situated to identify these smaller projects (mostly local load) under the time constraints provided
- ERCOT continues working to identify the local transmission upgrades.
- ERCOT identified the initial import paths to serve the Permian Basin region load growth and discussed these projects with the TSPs on April 30, 2024. ERCOT continues evaluating the import paths needed to serve the Permian Basin region load growth.

Updated Initial Local Transmission Projects for 2038 Case

- ERCOT worked with the TSPs and updated the initial local transmission projects for the 2038 case.
- The initial study indicates that substantial amounts of local transmission projects will be needed to serve all loads in the Permian Basin region for 2038:
  - Add approximately 254 miles of new 345-kV double-circuit transmission lines
  - Upgrade approximately 175 miles of existing 345-kV single-circuit transmission lines and add second circuits
  - Upgrade approximately 216 miles of existing 345-kV double-circuit transmission lines
  - Add approximately 12 new 345/138-kV substations with 27 345/138-kV transformers
  - Add approximately 338 circuit miles of new 138-kV transmission lines
  - Upgrade approximately 275 circuit miles of existing 138-kV transmission lines
- This does not include the significant regional transmission upgrades that will be needed to transfer power across the ERCOT System to serve the Permian load.
- The Permian Basin TSPs will identify additional transmission upgrades below 100-kV to address the local reliability needs.

Initial Import Paths to Permian Basin Region for 2038 Case

- The initial study results indicate that four new 345-kV double-circuit import paths, in addition to the Stage 5 upgrade(1) modeled in the study base case, will be needed to serve all the loads in the Permian Basin region for 2038.
  - Three 345-kV import paths are from Central Texas and one 345-kV import path is from South Texas.
  - Approximately 1,452 miles of new 345-kV double-circuit transmission lines in total.
  - Add second circuit to approximately 164 miles of existing 345-kV single-circuit transmission lines.
  - Add new dynamic reactive devices.

(1) Stage 5 upgrade was identified in the 2019 ERCOT Delaware Basin Load Integration Study (https://www.ercot.com/gridinfo/planning)

Next Steps

- ERCOT will continue evaluating the local transmission projects and the initial import paths to the Permian Basin region to address the reliability need for 2038.
- ERCOT will evaluate the transmission upgrades, both local and import paths, for 2030. These upgrades will be a subset of the transmission upgrades for 2038.