Oncor and AEPSC Drill Hole to Sand Lake to Solstice 765-kV Line Project – ERCOT Independent Review Scope

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RPG Meeting
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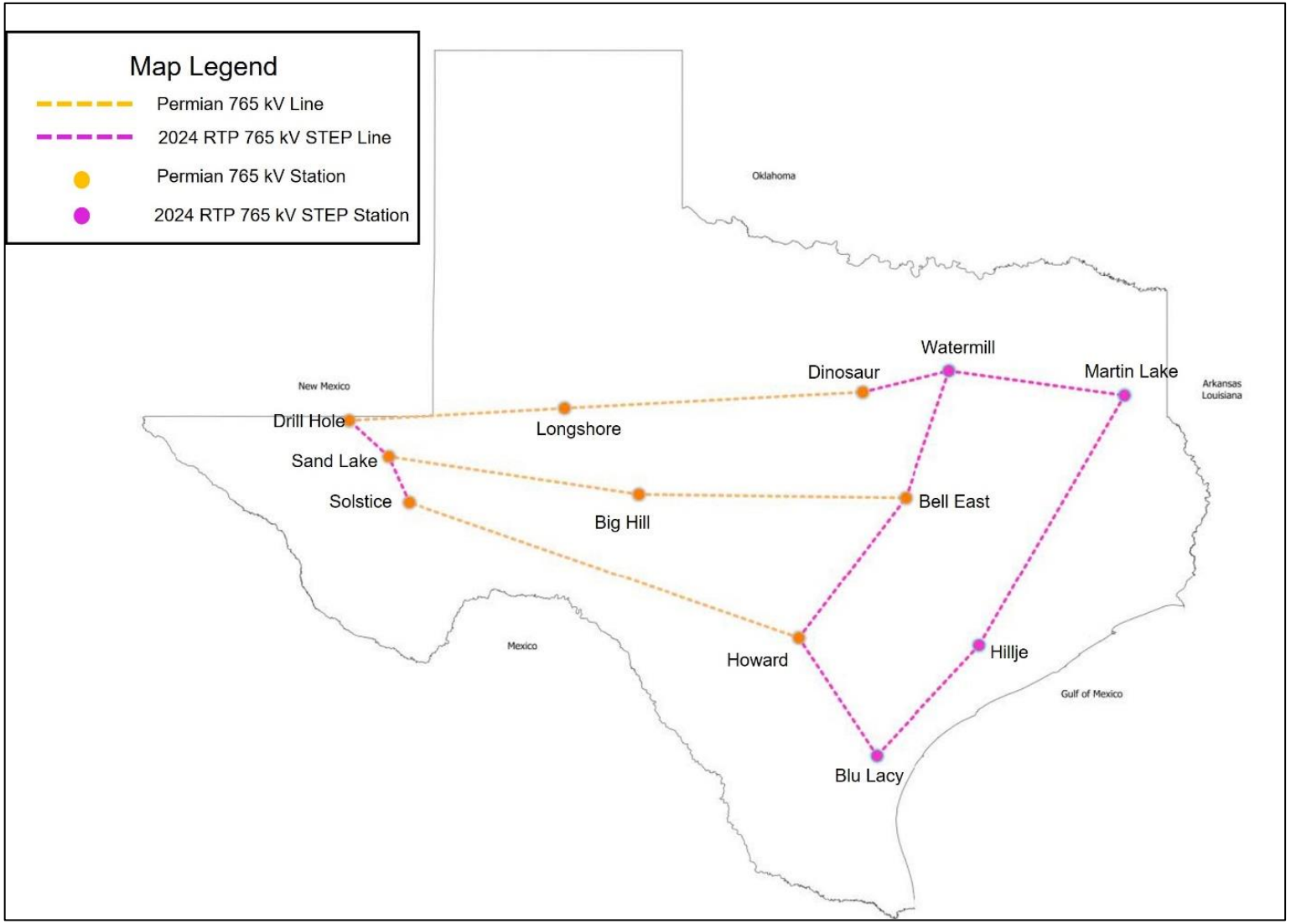
Introduction

- Oncor and American Electric Power Service Corporation (AEPSC) submitted the Drill Hole to Sand Lake to Solstice 765-kV Line Project for Regional Planning Group (RPG) review in July 2025
  - This Tier 1 project is estimated to cost $742.2 million and will require a Certificate of Convenience and Necessity (CCN) filing
  - Estimated in-service date (ISD) is Summer 2030
  - This project was identified and included in 2024 Regional Transmission Plan (RTP) in the Culberson, Reeves, and Pecos Counties in the Far West Weather Zone
  - This project aligns with the 2024 RTP 765-kV Strategic Transmission Expansion Plan (STEP) Core Plan
- This project is currently under ERCOT Independent Review (EIR)

Project Proposed by Oncor and AEPSC

- Install two 765-kV circuit breakers rated 4000 A or greater in a breaker-and-a-half arrangement at the newly approved Drill Hole 765-kV Switch;
- Install four 765-kV circuit breakers rated 4000 A or greater in a breaker-and-a-half arrangement at the newly approved Sand Lake 765-kV Switch;
- Install one 765-kV circuit breaker rated 4000 A or greater in a ring bus arrangement at the newly approved Solstice 765-kV Switch;
- Construct a new Drill Hole to Sand Lake 765-kV single-circuit transmission line using a conductor rated 5382 A or greater with normal and emergency ratings of at least 7602 MVA, which will require a new right of way (ROW), approximately 57.6-mile; and
- Construct a new Sand Lake to Solstice 765-kV single-circuit transmission line using a conductor rated 5382 A or greater with normal and emergency ratings of at least 7602 MVA, which will require a new ROW, approximately 46.8-mile.

765-kV STEP Core Plan Proposed in 2024 RTP



Study Assumptions and Methodology

- The reliability need of this RPG project was identified and included in the 2024 RTP
- This RPG project aligns with the 2024 RTP 765-kV STEP Core Plan
- ERCOT will utilize the 2024 RTP study for this Independent Review and assess the need for further analysis
  - Steady-state reliability analysis
  - Congestion Analysis
- ERCOT will perform additional evaluations in accordance with NERC TPL-001-5.1 and ERCOT Planning Criteria
  - Generation Addition and Load Scaling Sensitivity Analyses
    - Planning Guide Section 3.1.3(4)
  - Subsynchronous Resonance (SSR) Assessment
    - Nodal Protocol Section 3.22.1.3(2)

Next Steps and Tentative Timeline

- Tentative Timelines
  - Status update at October RPG meeting
  - Final recommendation – Q4 2025

Thank you!

Stakeholder comments also welcomed through:

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