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Lower Colorado River Authority (LCRA TSC) and CenterPoint Energy Houston Electric, LLC (CEHE) Euclid 765-kV Substation and Transmission Line Addition Project (26RPG001) – ERCOT Independent Review (EIR) Status Update

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Regional Planning Group (RPG) Meeting
April 13, 2026

Introduction

Lower Colorado River Authority (LCRA TSC) and CenterPoint Energy Houston Electric, LLC (CEHE) submitted the Euclid 765-kV Substation and Transmission Line Addition Project for Regional Planning Group (RPG) review in January 2026

- This Tier 1 project is estimated to cost $1.831 billion and will require a Certificate of Convenience and Necessity (CCN) filing
- Estimated in-service date (ISD) is June 30, 2031
- This project was identified and included in 2025 Regional Transmission Plan (RTP) in Caldwell, Colorado, Gonzales, Lavaca, Wharton counties in the South Central and Coast Weather Zones
- This project aligns with the 2025 RTP Euclid 765-kV Station and Euclid to Hillje 765-kV Line Addition Project

This project is currently under ERCOT Independent Review (EIR)

- LCRA TSC and CEHE presented the project overview and ERCOT provided the EIR scope at the March 2026 RPG Meeting

Recap: Project Proposed by LCRA and CEHE

Project Details

Construct a new Euclid 765-kV Substation

- Install adjacent to existing Euclid 345-kV Station expanding Euclid Station
- Install two (2) new 765/345-kV transformers rated to at least 2,403 MVA Normal and 2,772 MVA Emergency;
- Connect Euclid 765-kV as cut-in to planned Bell County East to Howard Road 765-kV transmission line; and
- Install 765-kV Switch Shunt Reactors sufficient to ensure voltage remains within acceptable operating limits.

At Planned Hillje 765/345-kV Substation

- Install or modify existing Switch Shunt Reactors sufficient to ensure voltage remains within acceptable operating limits; and
- Upgrade existing 345-kV circuit breakers to 80 kA interrupting capability.

Recap: Project Proposed by LCRA and CEHE

Construct a new Euclid to Hillje 765-kV single-circuit transmission line, with normal and emergency ratings of at least 7,602 MVA, which will require a new ROW, approximately 131.4 miles

- LCRA to construct approximately 65.7 miles segment from Euclid to point-of-interconnection with CEHE; and
- CEHE to construct approximately 65.7 miles segment from Hillje to point-of-interconnection with LCRA.

At Existing Euclid 345-kV Substation

- Connect Euclid 345-kV as Cut-in to the existing John Dumas to Hornsby 345-kV transmission line;
- Construct two (2) new Euclid to Misty 345-kV transmission lines rated to at least 2,988 MVA on separate structures, which will require a new ROW, approximately 2.0 miles;
- All equipment will be rated at 2,988 MVA (5000 Amps); and
- Install new 345-kV circuit breakers with 80 kA interrupting capability.

At Existing Misty 345-kV Substation

- All equipment will be rated at 2,988 MVA (5000 Amps); and
- Install new 345-kV circuit breakers with 80 kA interrupting capability.

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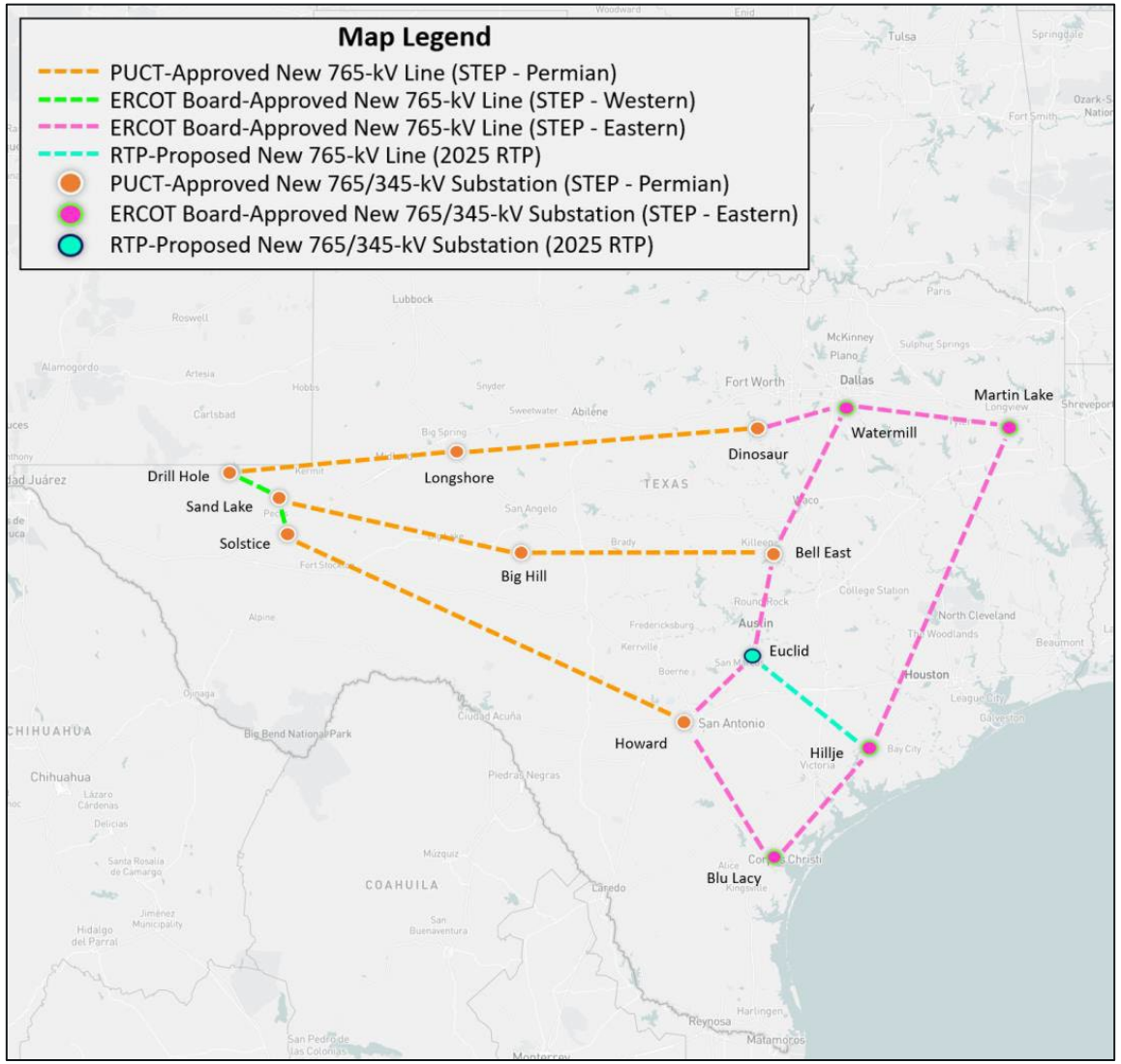
Recap: Map of Euclid 765-kV Station and Euclid to Hillje 765-kV Line Addition Proposed in 2025 RTP



Recap: Study Assumptions and Methodology

- The reliability need of this RPG project was identified and included in the 2025 RTP
- This RPG project aligns with the 2025 RTP Euclid 765-kV Station and Euclid to Hillje 765-kV Line Addition
- ERCOT will utilizing the 2025 RTP study for this Independent Review and will assess the need for further analysis
  - Steady-state reliability analysis
  - Dynamic stability 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 Oscillations (SSO) Assessment
    - Nodal Protocol Section 3.22.1.3(2)

Preliminary Reliability Analysis

- Steady-state reliability analysis
  - The LCRA TSC and CEHE Euclid 765-kV Substation and Transmission Line Addition Project addressed the reliability issues identified in the 2025 RTP
  - No additional steady-state analysis need identified at this time
- Dynamic stability analysis
  - No GTC impact
  - Additional stability considerations in progress

Additional Analyses

Congestion Analysis

- Congestion analysis is being performed for the Euclid 765-kV Substation and Transmission Line Addition Project using the 2025 RTP 2030 sensitivity case – In Progress

Generation Addition Sensitivity Analysis

- ERCOT is performing a generation addition sensitivity, per ERCOT Planning Guide Section 3.1.3(4)(a). The additional resources will be modeled following the 2025 RTP methodology – In Progress

Load Scaling Sensitivity Analysis

- Planning Guide Section 3.1.3(4)(b) requires an evaluation of the potential impact of load scaling on the criteria violations seen in this EIR. Starting 2024, ERCOT RTP adopted a new methodology of having one summer peak case for each study year with non-coincident peaks for each of the Weather Zones, which would eliminate the load scaling impact. The study case did not include load scaling as such load scaling sensitivity analysis is no longer needed

Subsynchronous Oscillations (SSO) Assessment

- SSO Assessment is being conducted for the Euclid 765-kV Substation and Transmission Line Addition Project per ERCOT Nodal Protocol Section 3.22.1.3 – In Progress

Deliverables and Next Step

Tentative Timelines

- EIR report to be posted in the Market Information Service (MIS) in May 2026
- EIR recommendation to Technical Advisory Committee (TAC) in May 2026
  - Post TAC material on May 12, 2026
  - Collect and consolidate questions on May 14, 2026
  - Post consolidated questions and ERCOT responses on May 15, 2026
- Seek ERCOT Board of Directors (BOD) endorsement in June 2026

Key Takeaway: Seek ERCOT BOD endorsement in June 2026

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Thank you!
Questions/Comments?

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