



## **2025 RTP – Final Update**

January 2026 RPG

ERCOT

Regional Transmission Planning

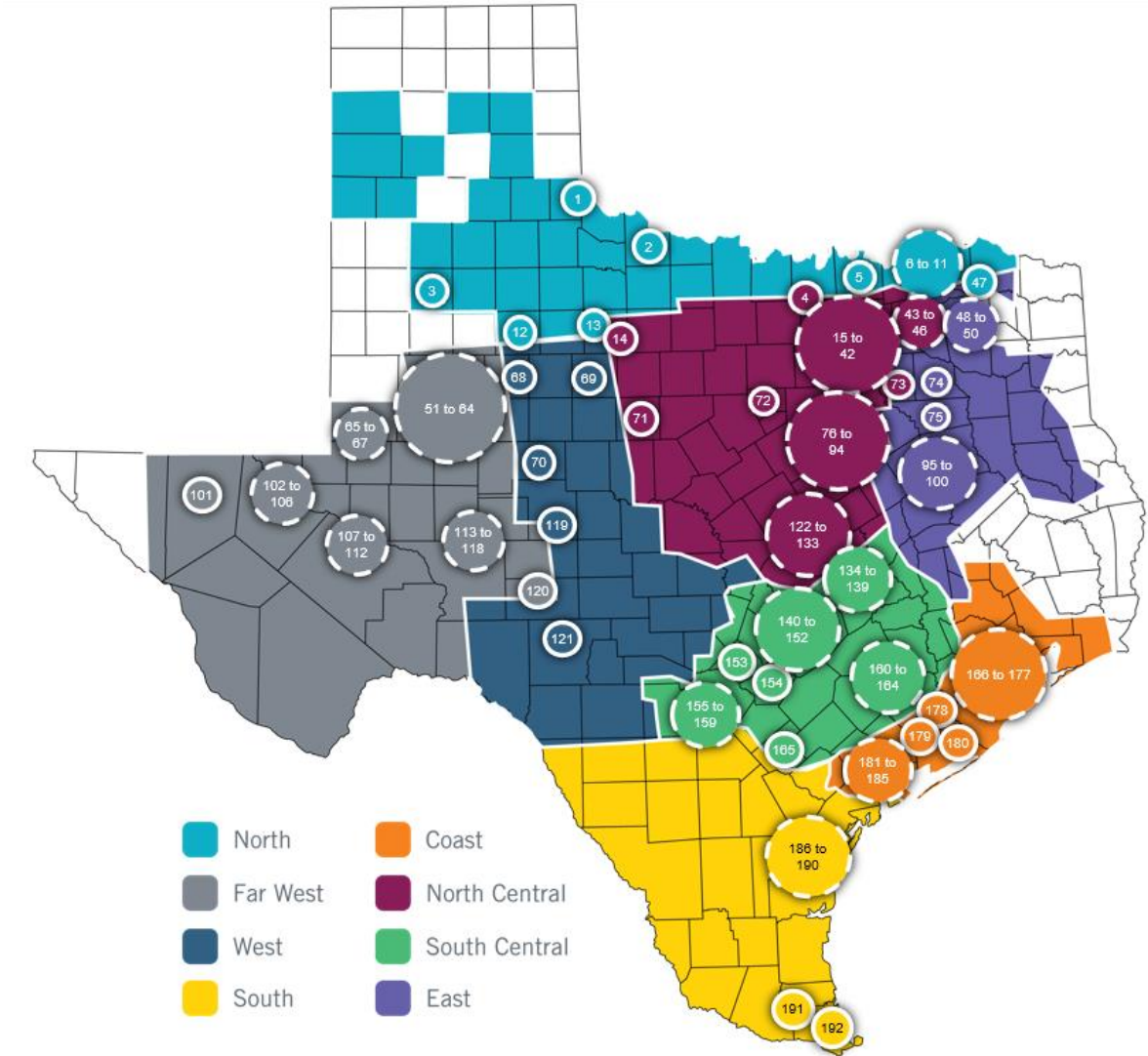
January 16, 2025

## 2025 RTP – Timeline

- April 8 – [ERCOT Adjusted Load Forecast](#) presented at the Board of Directors meeting.
- May 1 – ERCOT filed [Update on ERCOT's Adjusted Load Forecast and Request for Good Cause Exception for 2025 Regional Transmission Plan](#) under PUCT Project No. 55999.
- June 4 – ERCOT filed [Revisions to Adjusted Load Forecasts](#) under PUCT Project No. 55999.
- June 5 – The PUCT granted ERCOT Good Cause Exception authorizing the use of the [ERCOT Transmission Planning Adjusted Load Forecast](#).
- June 27 – Received final load substantiations from Load Serving Entities.
- August 5 – ERCOT posted 2025 RTP start cases.
- December 12 – The PUCT granted ERCOT Good Cause Exception [to exempt ERCOT from performing the maintenance outage analysis required under Planning Guide 4.1.1.8](#).
- December 22 – ERCOT posted 2025 RTP final cases, project lists, and MIS and [public](#) reports.

# 2025 RTP – Reliability Project Locations

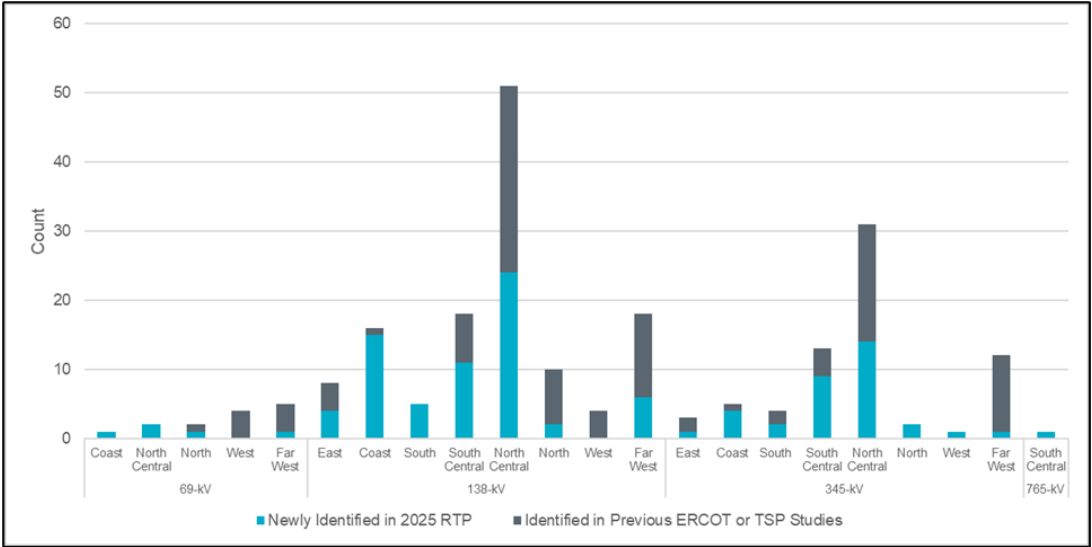
RTP Year	Total Reliability Projects
2016	40
2017	60
2018	38
2019	56
2020	50
2021	67
2022	89
2023	173
2024	145*
2025	192**



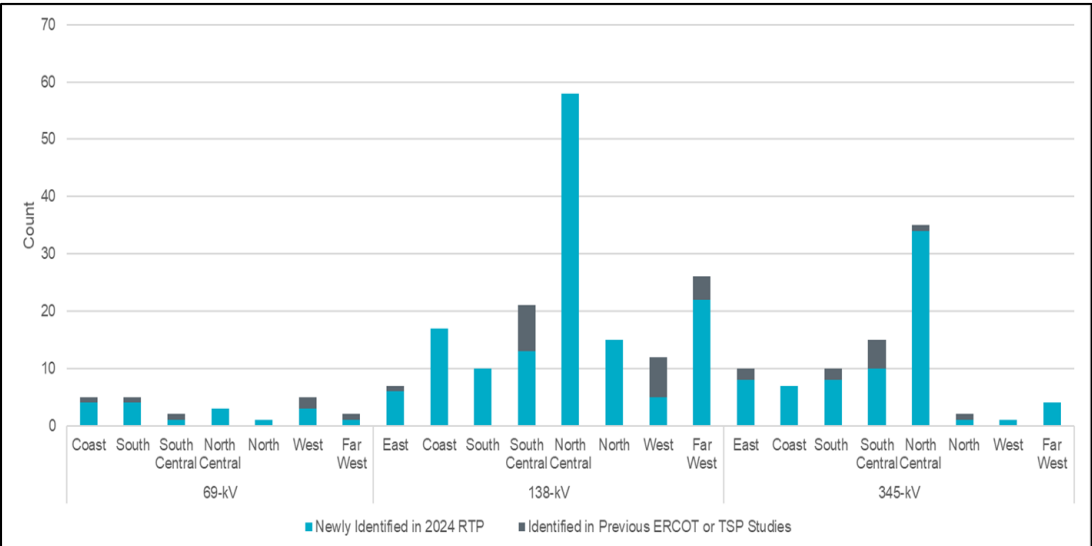
[\*] With 765-kV STEP in year 6 base case  
[\*\*] With 765-kV STEP in year 5 and 6 base cases

# 2025 RTP – Previous vs. New Projects

2025 RTP

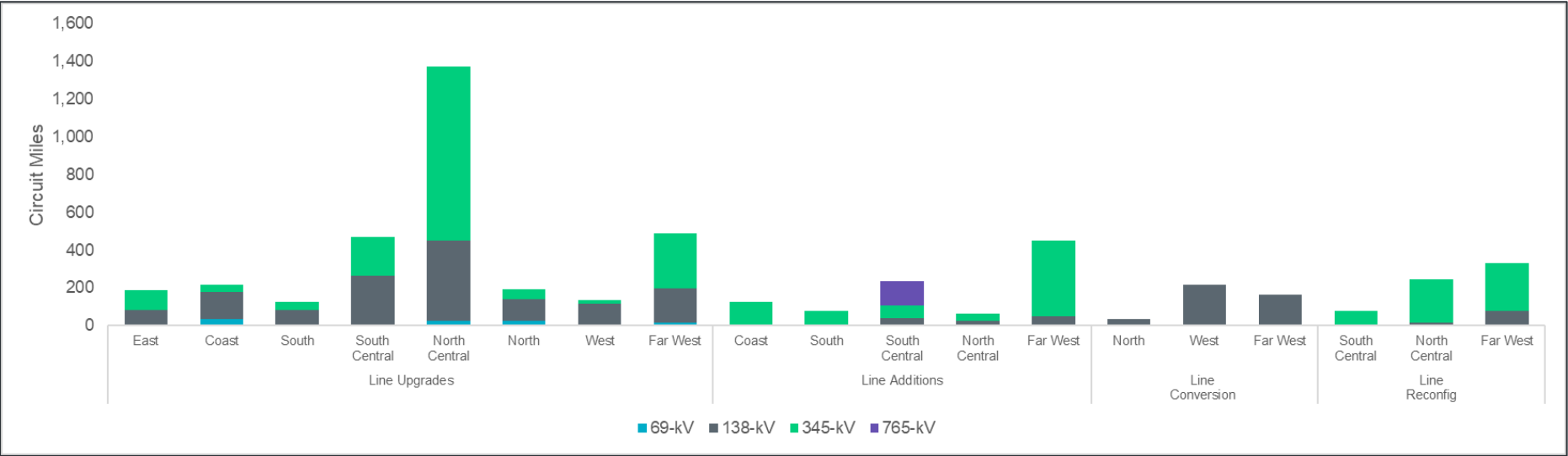


2024 RTP

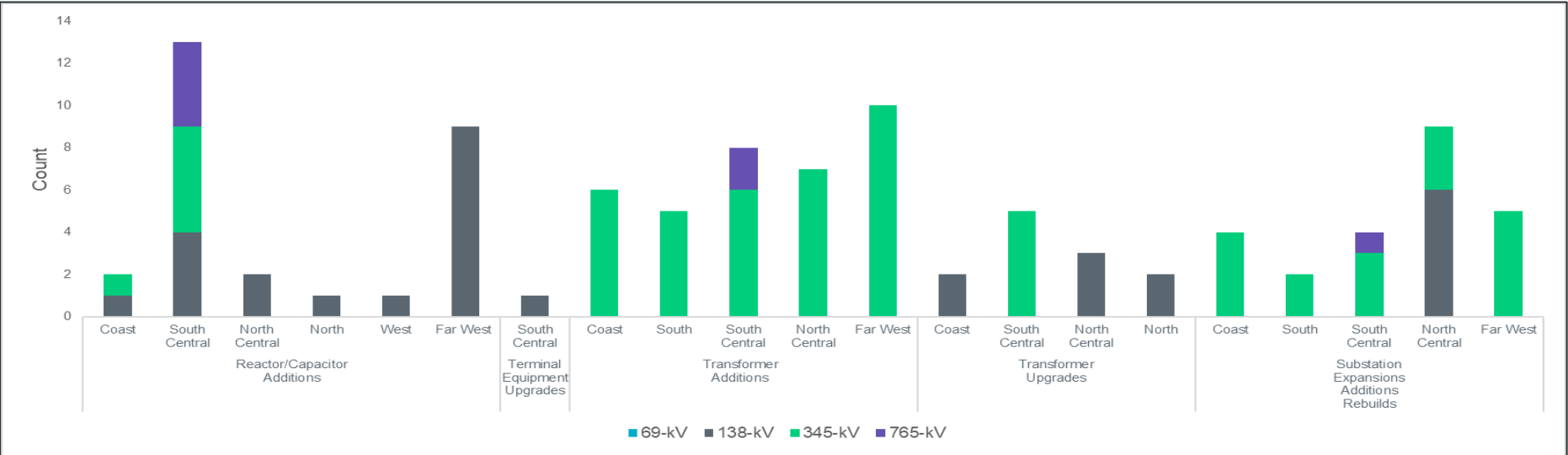


# 2025 RTP – Project Types

Line  
Upgrades  
Additions  
Conversions

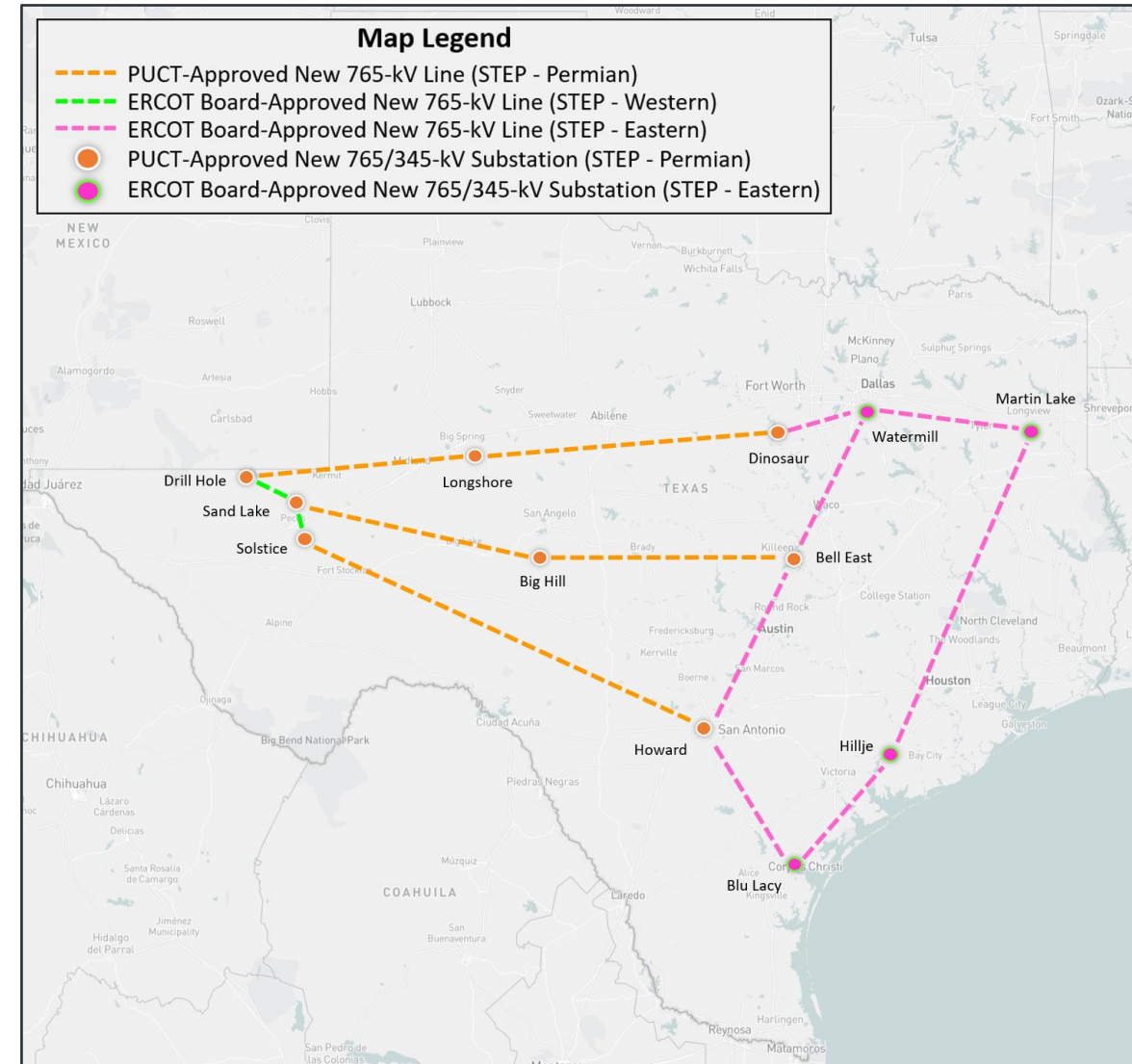


Other  
Upgrades  
Additions



# Texas 765-kV Strategic Transmission Expansion Plan (STEP)

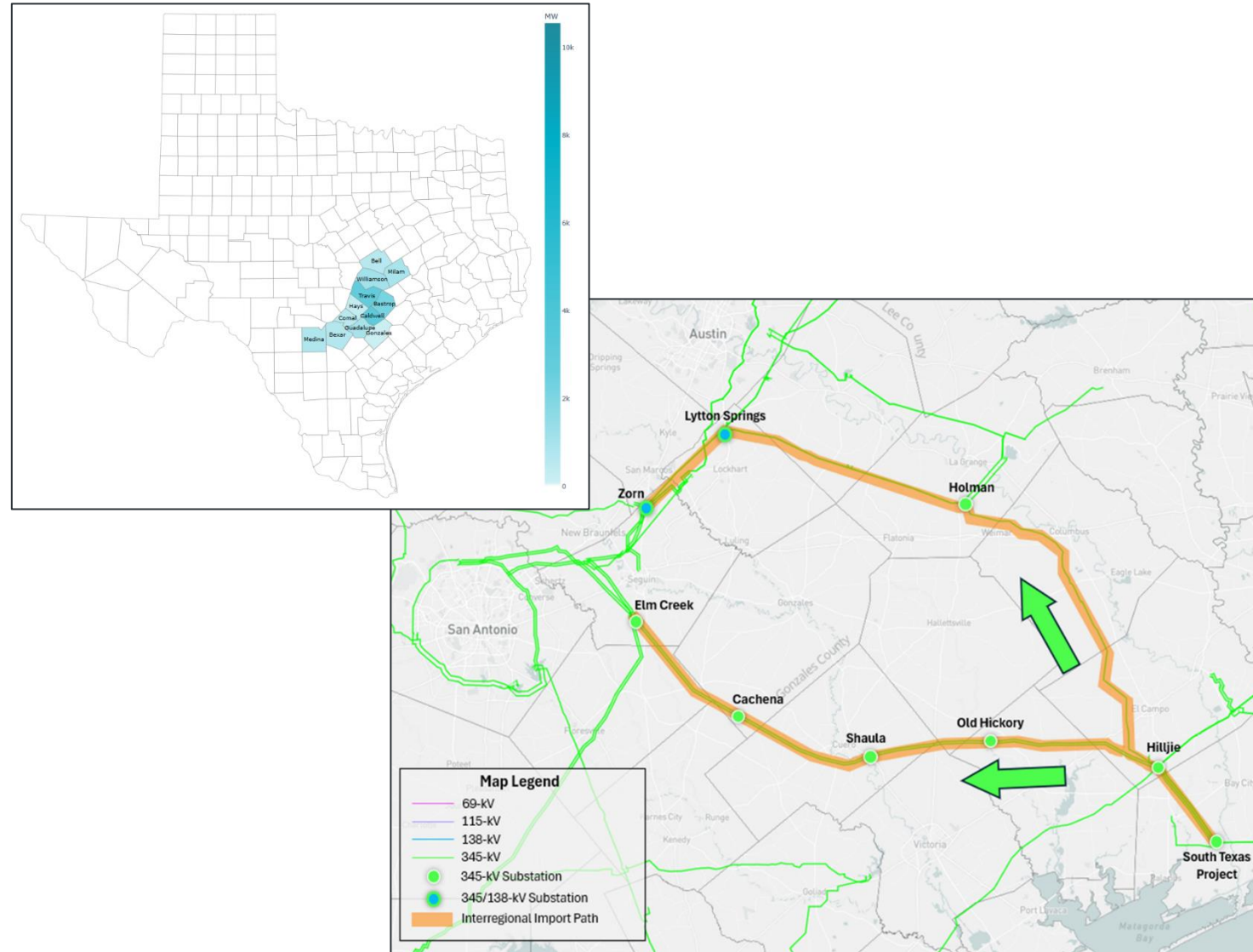
- Jan 27: Published [2024 Regional Transmission Plan \(RTP\) 345-kV Plan and Texas 765-kV Strategic Transmission Expansion Plan Comparison](#) which captured the results of the previous year's detailed analysis.
- April 24: Public Utility Commission of Texas approved 765-kV Permian Basin import paths.
- July 7 & 17: Texas 765-kV STEP Western Loop and Eastern Backbone Projects submitted to RPG, respectively.
- November 11: Final recommendation at RPG.
- December 9: Approved by ERCOT Board of Directors.
- 765-kV STEP, as proposed in the 2024 RTP, and ultimately approved by BOD, was included in the 2025 RTP 2030 and 2031 starting base cases to address base case violations.
- The 2025 RTP saw continued benefit of STEP in addressing additional new load growth and did not see a need to remove any elements of the plan.





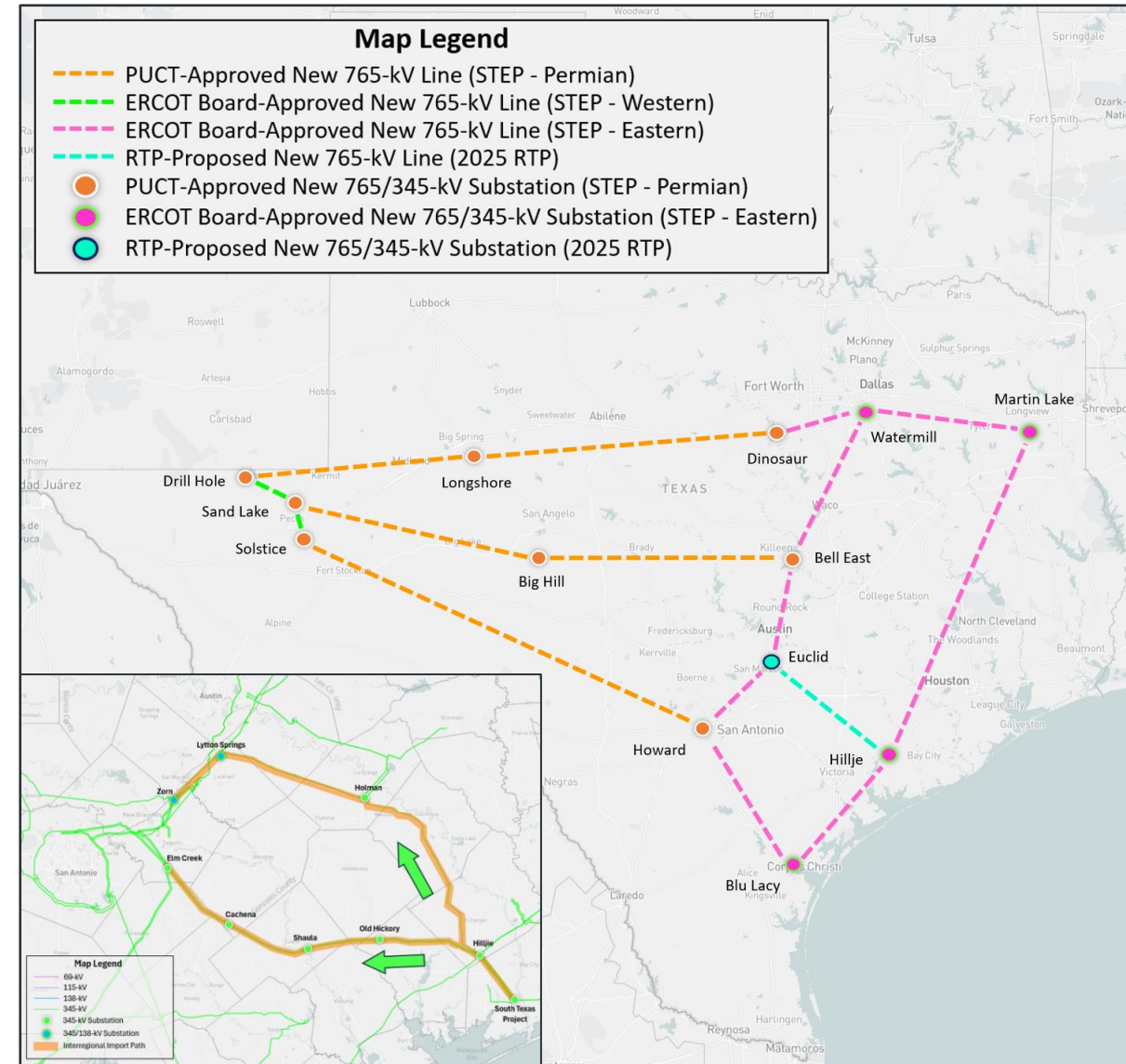
## 2025 RTP – Additional 765-kV Analysis

- The 2025 RTP evaluated potential additional 765-kV equipment to address additional new load growth.
- There was an addition of approximately 12.8 GW of load in the 2031 summer peak case in the Central Texas corridor counties of Bastrop, Bell, Bexar, Caldwell, Comal, Gonzales, Guadalupe, Hays, Medina, Milam, Travis, and Williamson.
- The 2023 and 2024 RTPs identified strained import capability into the Central Texas region. Additional regional load growth incorporated into the 2025 RTP strained import capability further.
- Additional 765-kV equipment was added to address the growing import need in Central Texas.



## 2025 RTP – Additional 765-kV Analysis

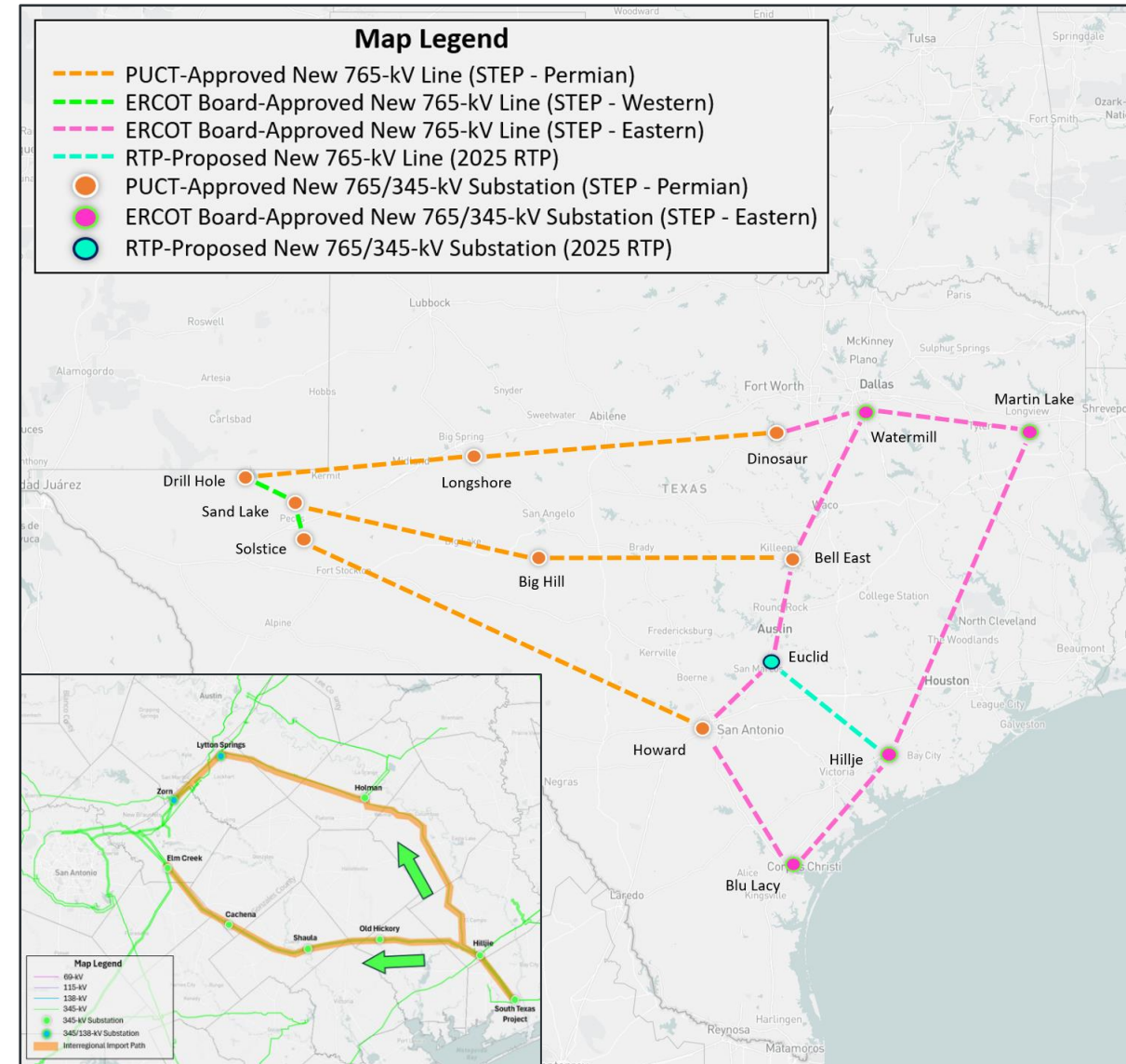
- Strained import capability into the area was first identified in the 2023 RTP, when it developed a South to Central Texas 345-kV import path extending from the Corpus Christi area into Central Texas.
- However, with the dramatic increase in loads in the Corpus Christi area in the 2024 RTP, there was less generation available for export. Instead, the 2024 RTP reinforced the existing 345-kV import corridors from Coast to South Central. The two import paths coming from the Coast Weather Zone to Central Texas currently consist of lower-rated 345-kV lines which limit the power transfer capability into the area to a level below what's needed.





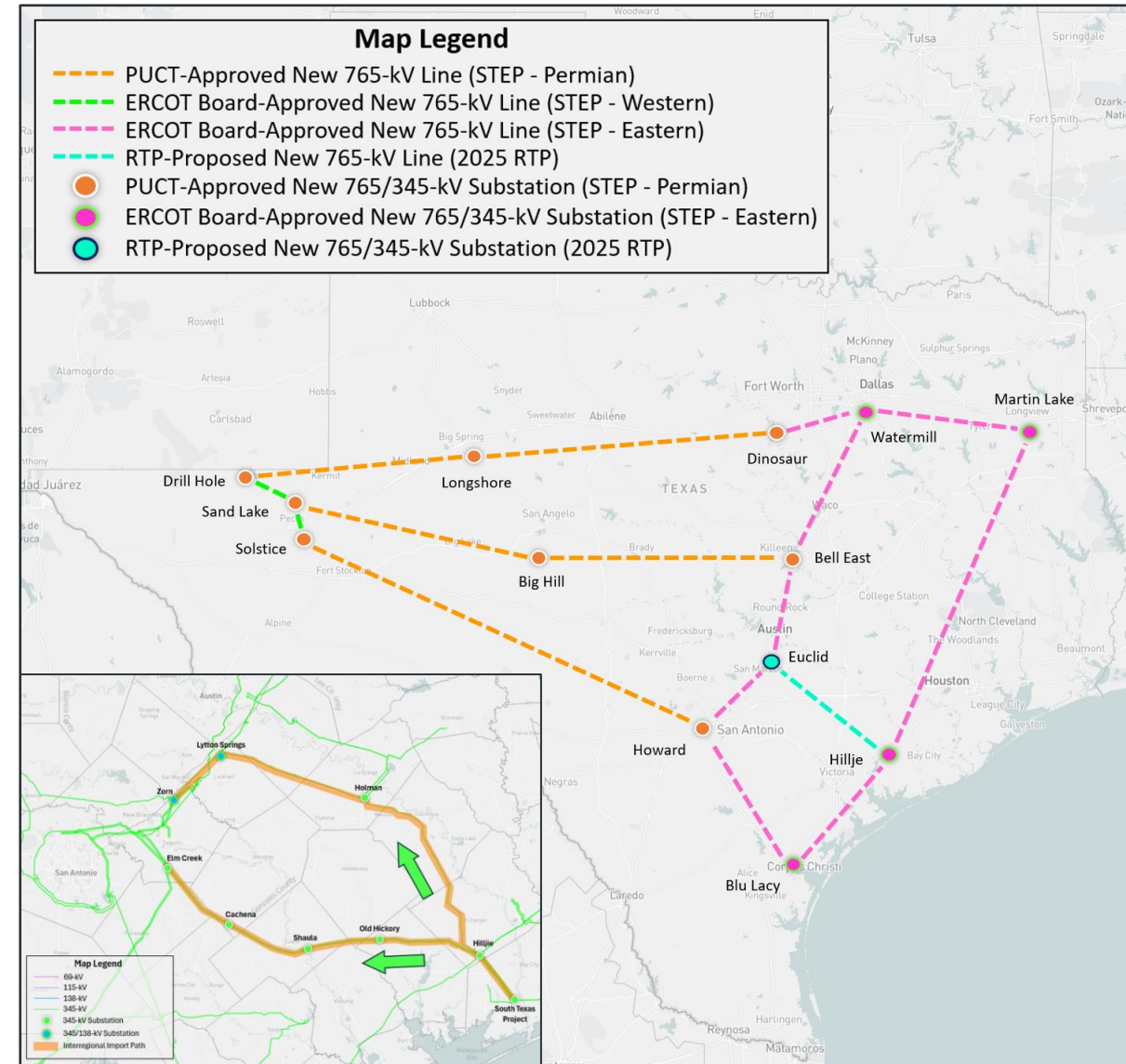
## 2025 RTP – Additional 765-kV Analysis

- The expansion of the existing 345-kV Euclid station in Central Texas to include 765-kV helps stabilize bus voltages and provides a new source into the Central Texas area, while the approximately 130 mile Euclid to Hillje 765-kV line addresses various violations along the Coast-to-Central paths.
- Adding a new 765-kV Central Texas import pathway from the Hillje substation in the Coast Weather Zone to the Euclid station in Central Texas brings approximately 2,000 MW across the line into Central Texas under base case summer peak conditions.



# 2025 RTP – Additional 765-kV Analysis

- The increased import capability is observed under both normal and post-contingency conditions across various system topology configurations, including both with the planned 765-kV STEP Eastern Backbone project and exclusively on the new line's own merits without the planned backbone as demonstrated in the early study years.
- In addition to dramatically increasing overall import into the Central Texas area, the additional 765-kV pathway will provide the much-needed operational flexibility for the system to handle any required outage of those existing pathways without compromising system reliability.



# 2025 RTP – Peak Net Load (“Sunset”) Analysis and Minimum Deliverability

- To meet the Minimum Deliverability criteria as required by Planning Guide 4.1.1.7, the 2025 RTP developed a 2027 study case to represent “sunset” conditions typically found during the 7-8 p.m. time period.
- The battery dispatch of 56.9% was based on the capacity factor observed on October 10, 2025, hour ending 19 when ERCOT set a battery discharge record of 8,714 MW.
- This analysis was meant to capture what are still the most challenging operating conditions when solar is very low, wind in the West and Far West is low, and wind in the Panhandle is very low.

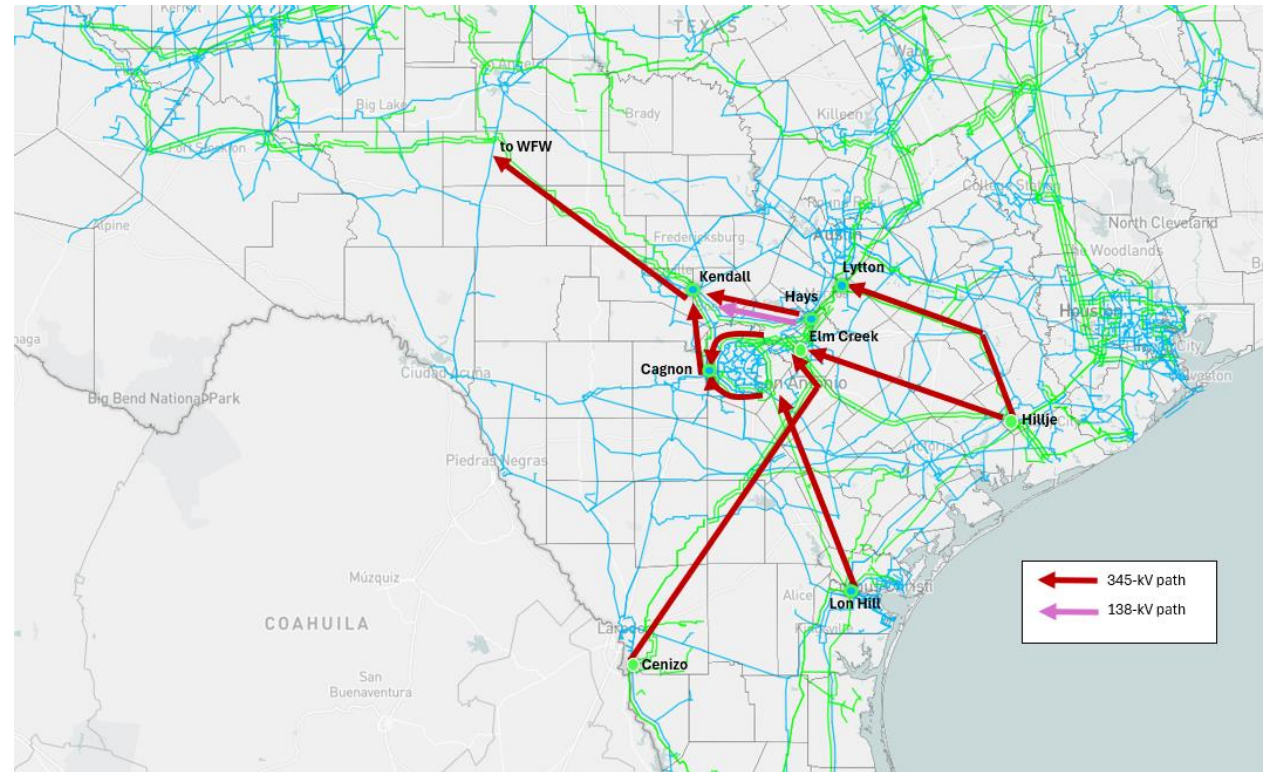
	Sunset BASE	Sunset MIN DELIV
Study Year	2027	2027
Load Scenario	Peak Net Load	Peak Net Load
Includes only Generation Meeting Planning Guide 6.9	YES	YES
System Load (Less Self-Served, MW)	106,487	106,487
Percent of Summer Peak Load Level	95.8	95.8
Large Loads with TSP Officer Letters (System, MW)	0	0
Large Loads with Signed Interconnection Agreements (System, MW)	19,271	19,271
Dispatchable Generation Level (%)	100 (94)	100
Solar Dispatch Level (%)	13.3	5.7
Battery Dispatch Level (%)	56.9	83.3
Wind Dispatch Level (Southern Coastal, %)	63.3	31.1
Wind Dispatch Level (Southern Non-Coastal, %)	70.9	34.7
Wind (Panhandle, %)	12.0	6.1
Wind (Other, %)	33.6	14.4

<sup>[1]</sup> Dispatchable generators in the Sunset BASE case could be redispatched to resolve violations, which resulted in an effective dispatch of 94%. Dispatchable generators were not allowed to be redispatched in the Sunset MIN DELIV case and were maintained at 100% output.



# 2025 RTP – Peak Net Load (“Sunset”) Analysis and Minimum Deliverability

- These conditions resulted in generation from the Southern and Coast Weather Zones needing to travel across the entire system, including to the West and Far West Weather Zones, stressing many paths along the way.



## Questions/Comments

- Please send to:  
[Jameson.Haesler@ercot.com](mailto:Jameson.Haesler@ercot.com)