Item 6: CEO Update – REVISED*

Pablo Vegas
President and Chief Executive Officer

Board of Directors meeting

ERCOT Public
February 4, 2025

*Slide 4 Updated Graph 01/31/25

Overview

- **Purpose**
  Presentation highlights ERCOT's recent Operations and Planning activities and highlights strategic areas of focus

- **Voting Items / Requests**
  No action is requested of the Board; for discussion only

- **Key Takeaways**
  - Improved planning and communications contributed to reliable grid performance during recent January storms
  - A newly formatted Capacity, Demand and Reserves (CDR) Report will be released in February 2025
  - ERCOT's 345-kV and 765-kV comparison study shows reliability and efficiency benefits utilizing 765-kV technology

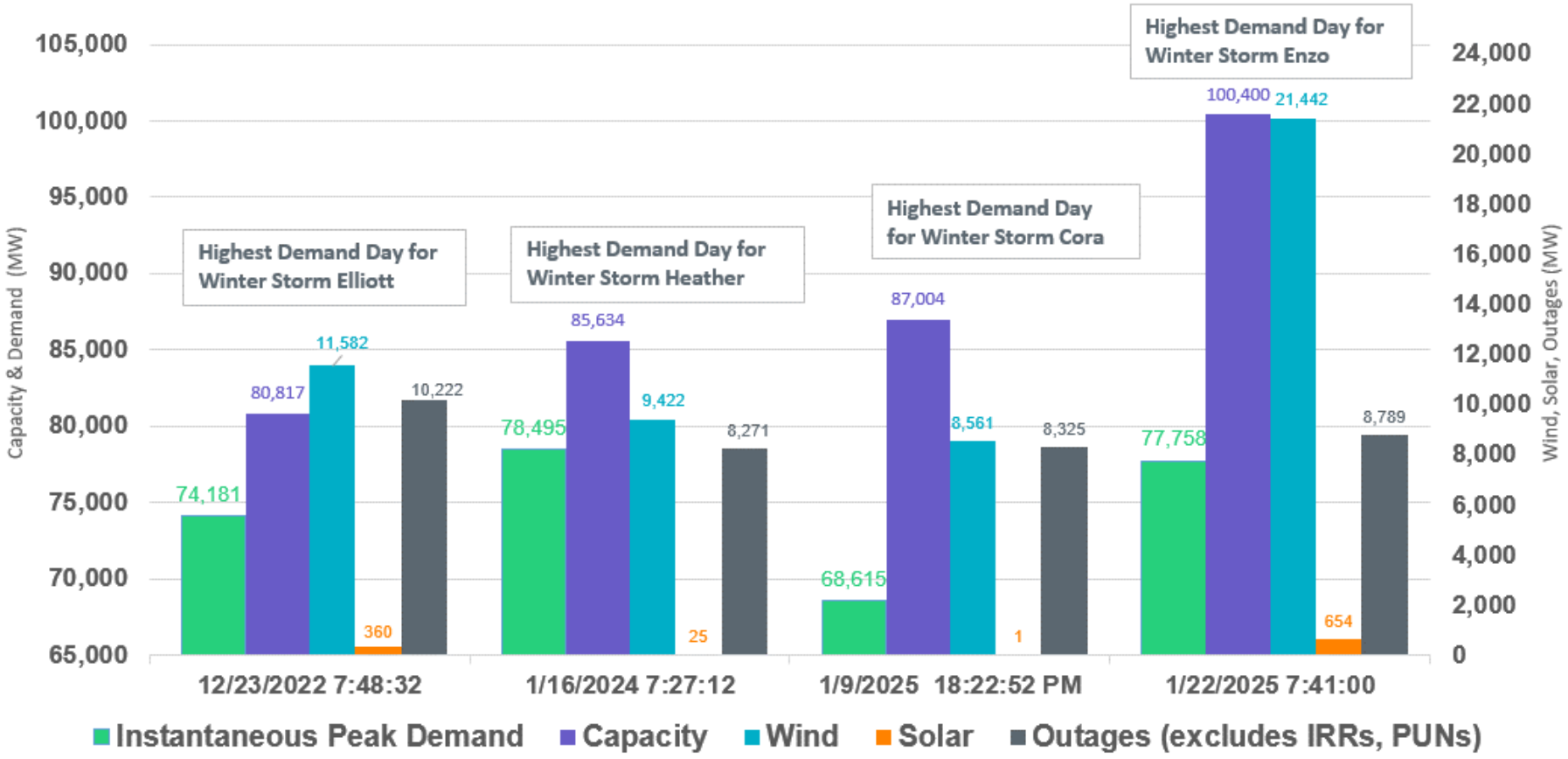
Capacity, Demand and Reserves (CDR) Report

What is New?

- HB5066 load as primary forecast
  - Both the timing of when these large loads materialize and if the load can be flexible are critical variables in the model results
- Energy storage dispatch included for the first time
- Utilizing Effective Load Carrying Capability (ELCC) to account for wind, solar, and battery energy storage contributions
  - ELCC provides more accurate availability values when measuring our greatest reserve shortages during the peak load hour and peak net load hour
- Additional load and supply resource scenarios will be included to provide alternate views of the HB5066 load development or flexibility and the inclusion of Texas Energy Fund (TEF) generation resources across the 5-year period

Key Takeaway: The CDR report parameter changes, along with the inclusion of multiple scenarios, better represent the performance of grid resources and the dynamic nature of the ERCOT grid and potential future reserve margins.

Recent Winter Storms: System Analysis at Peak Demand



Key Takeaway: While the recent winter storms were not comparable to February 2021 in terms of temperature, impact, and duration, the ERCOT grid performed well.

New Era of Planning – Transmission Update

- New growth forecast coupled with the utilization of current transmission capacity prompted the inclusion of a 765-kV transmission alternative to the 345-kV voltage in the December 2024 Regional Transmission Plan (RTP)
- ERCOT developed a cost benefit comparison between the 345-kV plan and the Texas 765-kV Strategic Transmission Expansion Plan (TX 765-kV STEP)
- Both require a significant number of new transmission build miles and existing line upgrades, irrespective of the voltage used
- PUCT has set a deadline of May 1, 2025, for determining which voltage will be utilized for the Permian Basin import paths

Key Takeaway: While 765-kV would be new to the ERCOT region, it has been used in other parts of the U.S. since the 1960s. Both SPP and MISO have active proposals to build Extra High Voltage transmission in non-ERCOT areas of Texas.

TX 765-kV STEP vs 345-kV Comparison

TX 765-kV STEP	VS	345-kV Plan
$32.99B	**Estimated Initial New Construction Cost**	**$30.75B**
$0.91B	**Live/Hot Construction to Facilitate Existing Upgrades**	$1.8B
$33.90B	**Total Estimated Construction Cost**	**$32.55B**
1,443 fewer miles of existing system work	**Existing System Upgrades**	-
$229M/year more consumer energy cost savings (annually)	**Estimated Consumer Energy Cost Savings**	-
$28M/year more production cost savings for energy (annually)	**Estimated Production Cost Savings**	-
560 GWh/year less energy losses ($16.2M annual savings)	**Estimated System Loss Reduction**	-
600 to 3,000 MW increases in power transfer capability	**Incremental Transfer Capability**	-

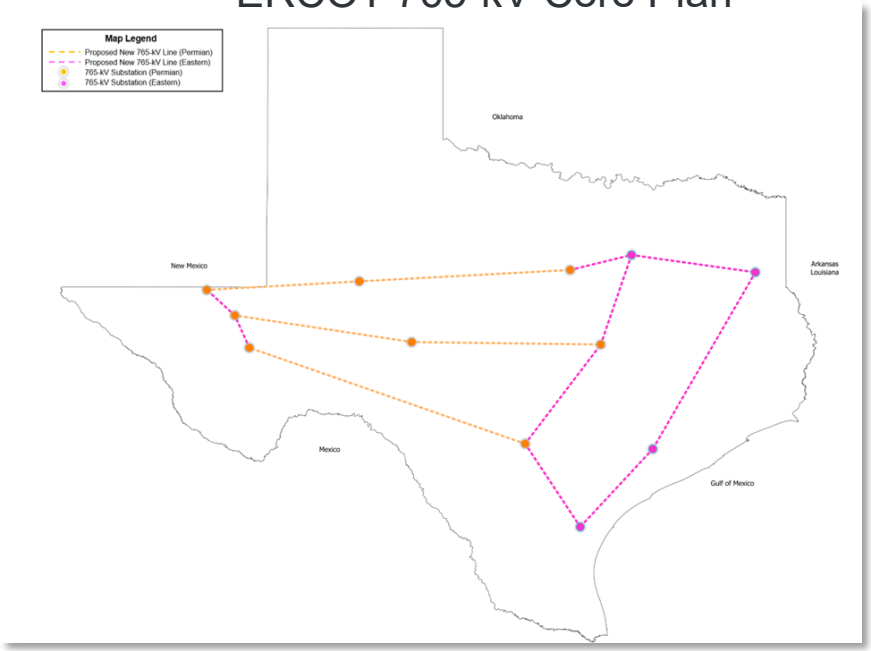
Key Takeaway: Overall, the TX 765-kV STEP offers better performance and future savings and capability for initial investment.

TX 765-kV STEP Benefits

The benefits of 765-kV transmission include:

- Increased transfer capability to load centers
- Flexibility in generation resource siting
- Lower line losses
- Lower congestion costs
- Outage coordination capacity
- Potential exit strategy for some current Generic Transmission Constraints

ERCOT 765-kV Core Plan



Geographic locations for proposed new lines are meant to demonstrate general electrical point-to-point connections. Specific routing of any new transmission infrastructure is determined by the PUCT as part of the CCN process with Transmission Service Providers.

Key Takeaway: After study and consideration of the costs and benefits associated with each plan, ERCOT believes that the proposed TX 765-kV STEP provides greater long-term benefits to the consumers of Texas. Integrating a new 765-kV transmission network into the ERCOT System would represent a strategic transformative step in power infrastructure, enabling efficient, reliable, resilient, and sustainable electricity delivery for both current and future demand.

Employee Recognition: Planning Reports

2024 Regional Transmission Plan. TX 765-kV STEP. Grid Reliability and Resiliency Assessment. Existing & Potential Electric System Constraints & Needs Report. Long-Term System Assessment.

Tanzila Ahmed
Johanna Allen
Eric Cen
Amy Chen
Mingwei Chen
Jose Conto
Pengwei Du
Prabhu Gnanam
Robert Golen
Sarah Gunasekera
Jameson Haesler
Misael Rodriguez Hernandez
Nelson Avila Hernandez
Julie Jin
Daniel Johnson
Sun Wook Kang
Fred Khodabakhsh
Ying Li
Kate Lamb
Tyler Long
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Priya Ramasubbu
Jimmy Ramirez
Gustavo Blanco Rivera
John Schmall
Jose Solchaga
Julie Snitman
Jack Thornton
Tyler Vickery
Pete Warnken
Ping Yan
Mahnoush Yousefian
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Support/Review
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Julie House
Christy Penders
Woody Rickerson
Matt Stout
Trudi Webster