



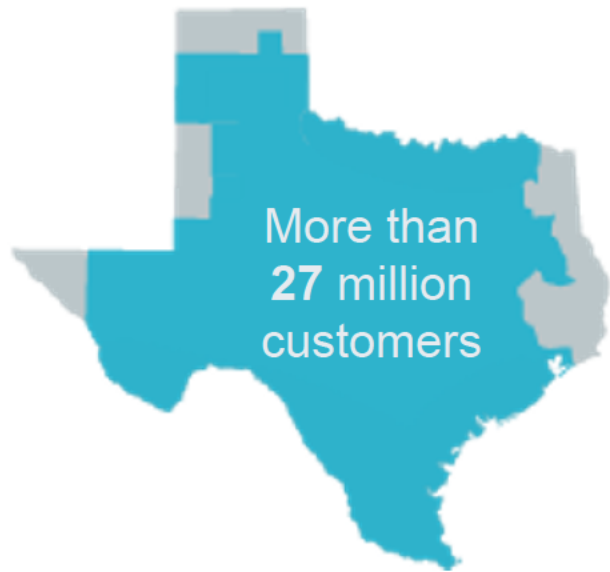
**United States House of Representatives
Committee on Energy and Commerce
Subcommittee on Energy**

Supplementary Materials

Pablo Vegas
President and Chief Executive Officer
Electric Reliability Council of Texas, Inc.

March 25, 2025

ERCOT Facts



85,508 MW

Record peak demand (August 10, 2023)

103,105+ MW

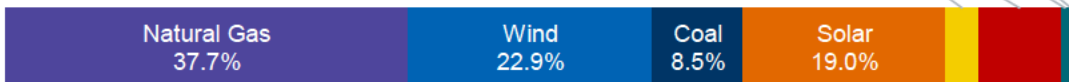
Expected capacity for summer
2025 peak demand (December 2024 CDR)

\$3.8 billion

Transmission projects endorsed in 2024

2025 Generation Capacity

Reflects the forecasted operational installed capacity for Summer 2025 based on December 2024 CDR report.



The sum of the percentages may not equal 100% due to rounding.
*Other includes biomass-fired units and DC tie capacity.

2024 Energy Use



* Other includes hydro, petroleum coke (pet coke), biomass, landfill gas, distillate fuel oil, net DC-tie and Block Load Transfer important/exports and an adjustment for wholesale storage load.

1 MW of electricity is enough to serve about 250 residential customers during ERCOT peak hours.



40,006 MW

Wind

of installed wind capacity as of March 2025, the most of any state in the nation

28,550 MW

Generation Record
(March 3, 2025)

69.15 %

Penetration Record
(April 10, 2022)



32,316 MW

Solar

of utility-scale installed solar capacity as of March 2025

25,041 MW

Generation Record
(March 10, 2025)

54.23 %

Penetration Record
(March 1, 2025)

~76 % (~36,966 MW)

Preliminary Wind + Solar Penetration Record (March 1, 2025)



13,417 MW

Energy Storage

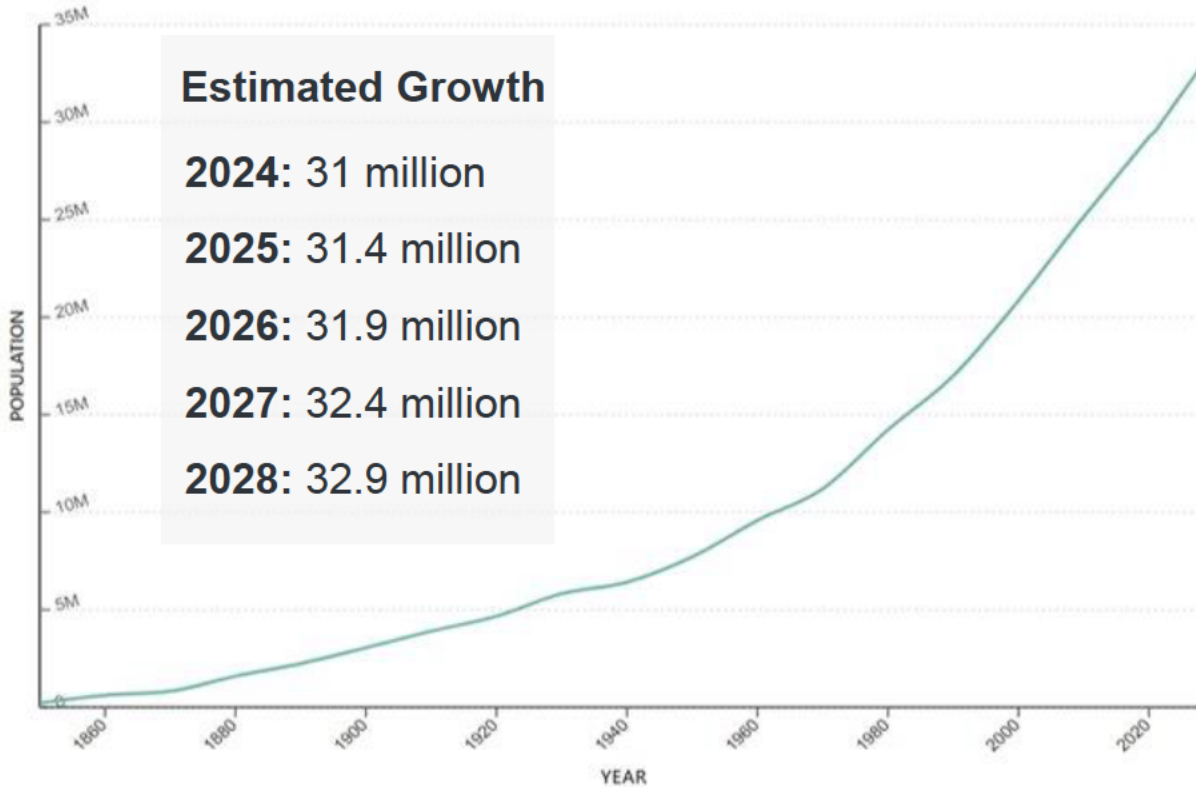
of installed energy storage capacity as of March 2025

4,963 MW

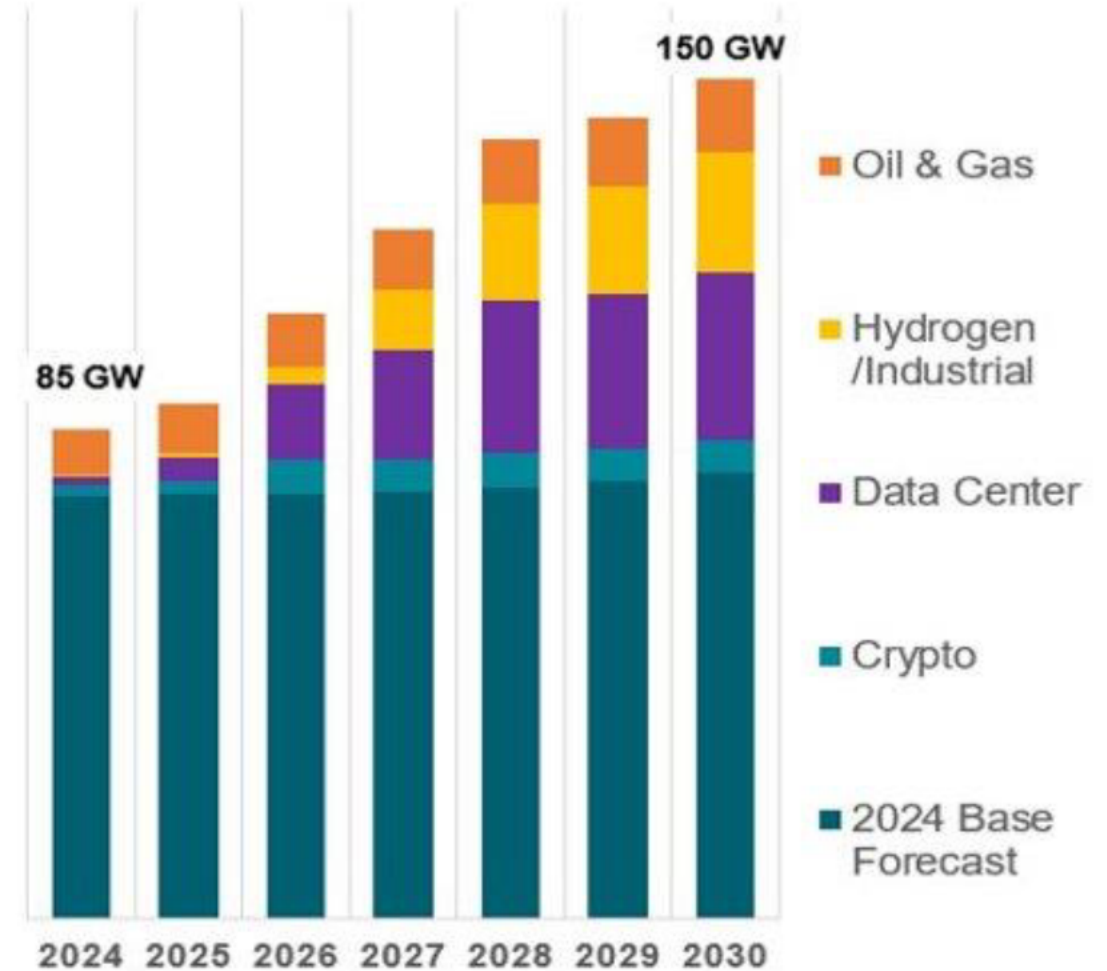
Energy storage generation Record (March 10, 2025)

Load Side – What is Happening?

Texas Population 2023
30,500,280*



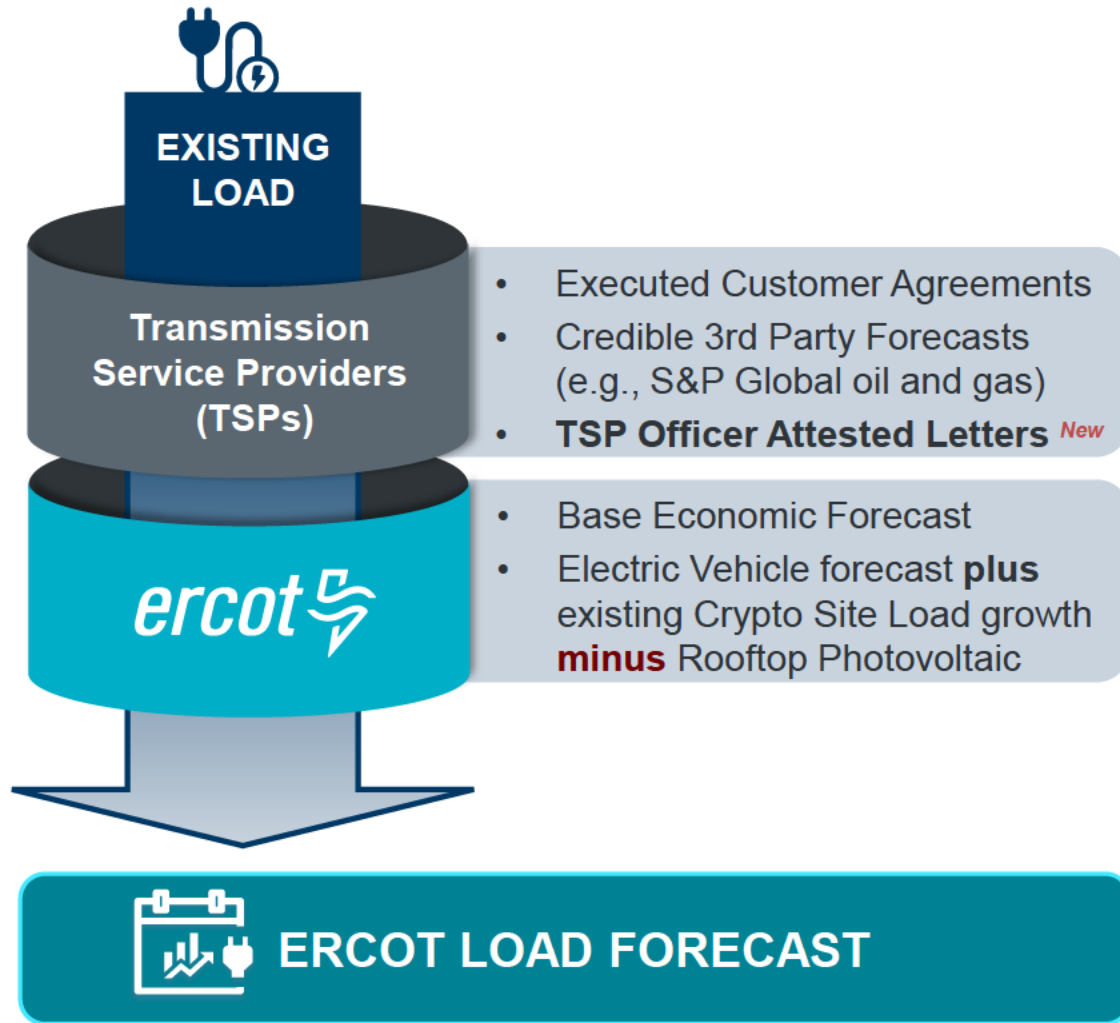
*The last US census was in 2020 so current figures are projected based on the estimates only.



** HB5066 - ERCOT has limited ability to verify Transmission Service Provider (TSP) officer attested load

Key Takeaway: Forecasted load growth is significant.

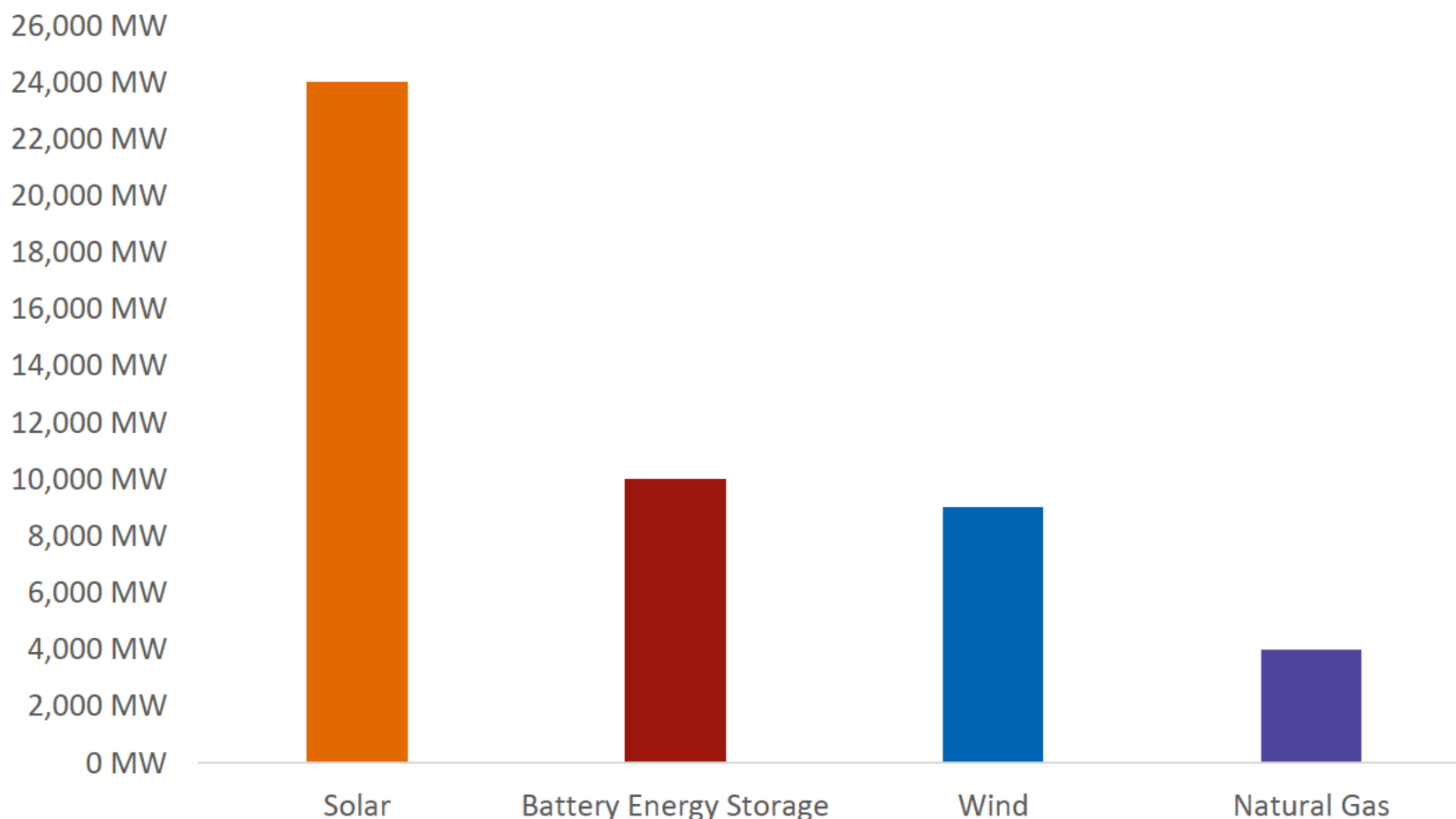
HB5066 Load Forecasting Process



Key Takeaways:

- The most impactful difference between the HB5066 process and ERCOT's previous Load forecasting process is that ERCOT must accept TSP Officer Attested Letters as reasonable.
- ERCOT has limited data to be able to verify Loads provided in TSP's Officer Attested load category.

New Generation by Resource Type: January 2021 through March 2025



Dispatchable Thermal Generation

(2009-2024) only 1,700 MW of net new dispatchable thermal generation added.

- 23,083 MW added
- 21,354 MW retired

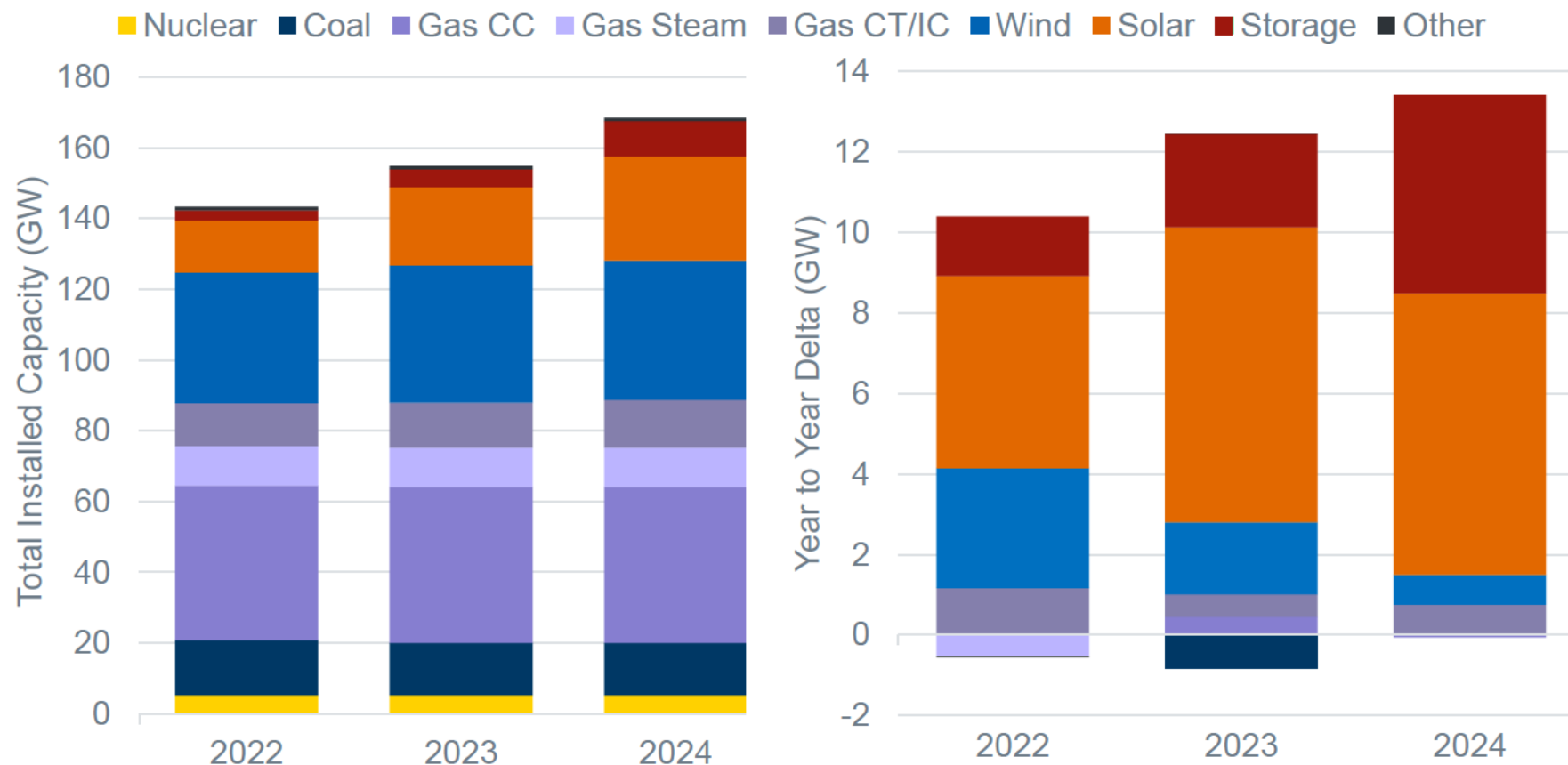
61,027 MW of net new solar and wind added (2009-2024)

Total Thermal Fleet is 88,779 MW*

- 42% is older than 30 years (36,951 MW) (1995)
- 27% is older than 40 years (24,129 MW) (1985)
- 13% is older than 50 years (11,773 MW) (1975)
- 3% is older than 60 years (2,628 MW) (1965)

Key Takeaway: From January 2021 to March 2025, ERCOT synchronized approximately 45,000 MW of new generation.

Generation Capacity and Additions 2022 through 2024

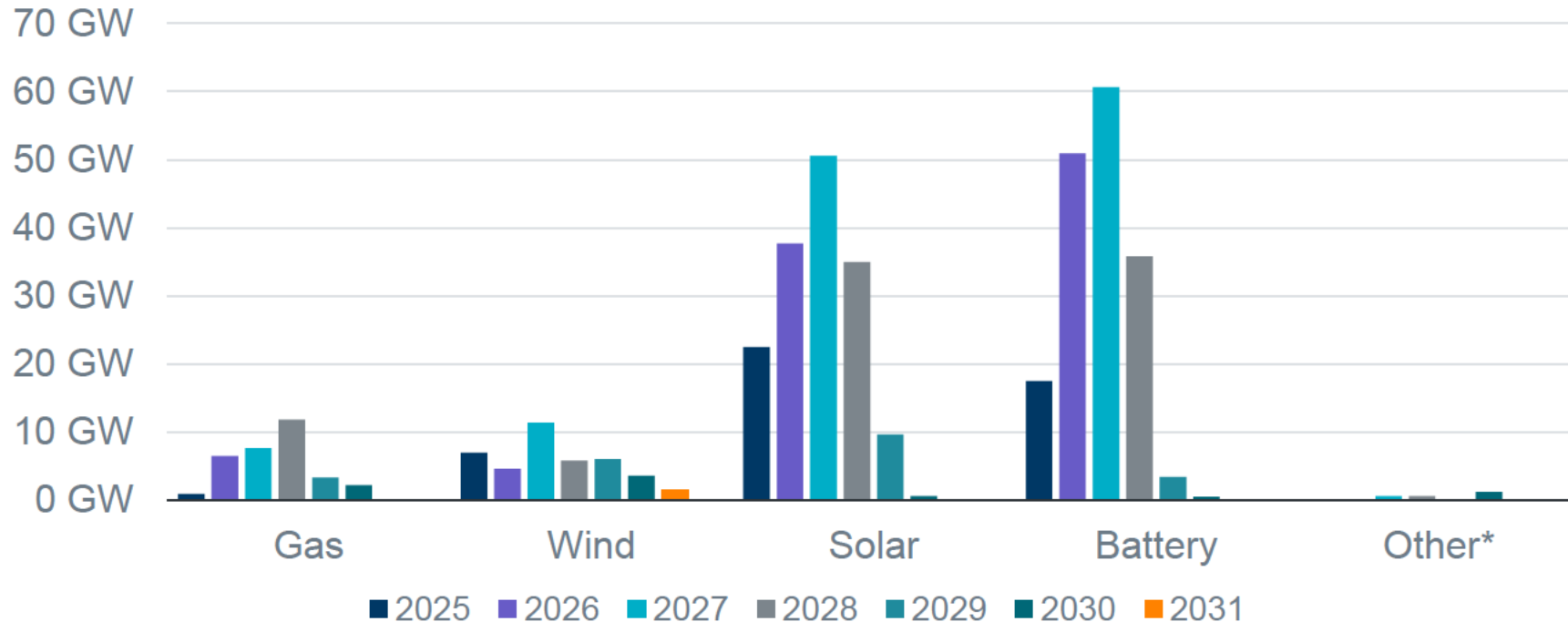


Key Takeaway: Most new generation over the past several years has been from solar, storage, and wind resources. Furthermore, most expected growth over the next few years continues to be from these resources.

Generation Interconnection

1,987 active generation interconnection requests totaling 400 GW as of February 28, 2025
(Solar 156 GW, Wind 40 GW, Gas 32 GW, Battery 169 GW, and Other 3 GW)

(excludes capacity associated with projects designated as Inactive per Planning Guide Section 5.2.5)



Key Takeaway: Solar and Battery Energy Storage account for more than 81% of the amount of generation seeking interconnection.

*includes petroleum coke, hydroelectric, fuel oil, geothermal energy, other miscellaneous fuels reported by developers, and fuel cells that use fuels other than natural gas

Transmission System Challenges & Complexities

- Demand is escalating as new large loads are added to the ERCOT system faster and in greater sizes than historical interconnections.
- The current generation mix is more diverse than previous portfolios, can be built faster, and is more geographically disbursed from load centers.
- While we're seeing changes in the speed of load growth and generation coming onto the Texas power grid, transmission still requires 3-6 years to be energized.

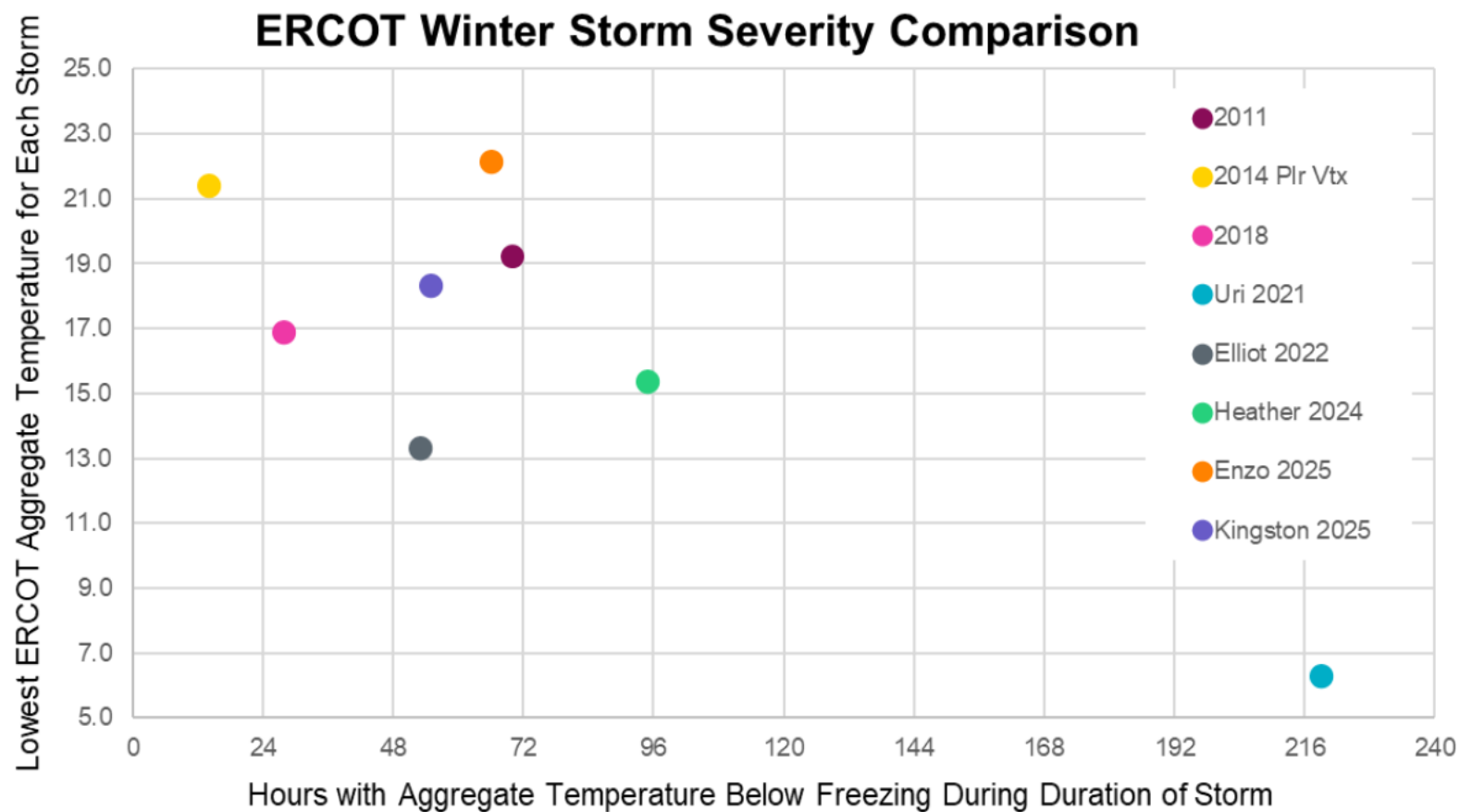
Load
(6-12 months)

Generation
(6-24 months)

Transmission
(3-6 years)

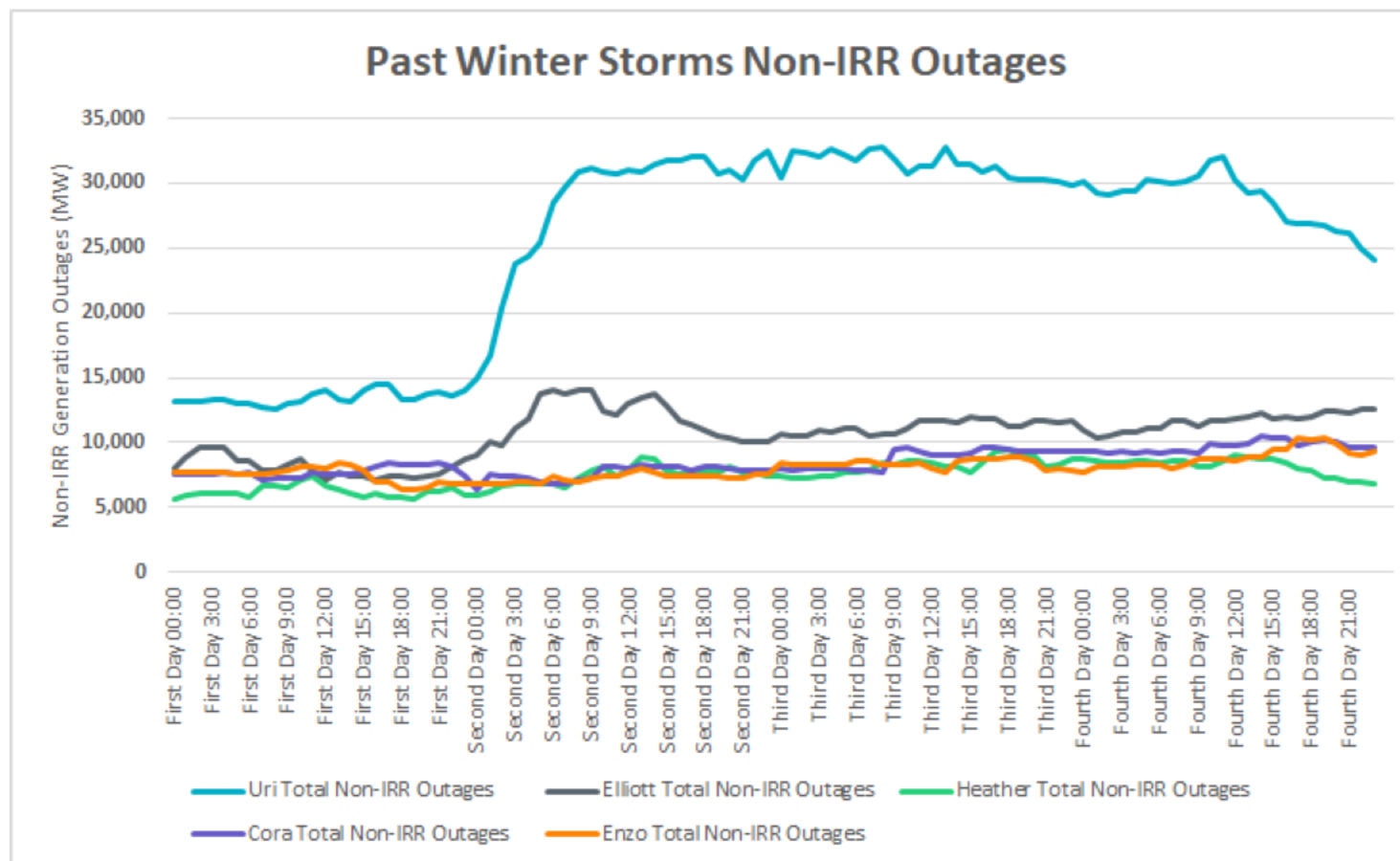
Key Takeaway: The forecasted pace of load growth could exceed the pace at which transmission capacity can be built to support it.

Comparison of Past Winter Storms



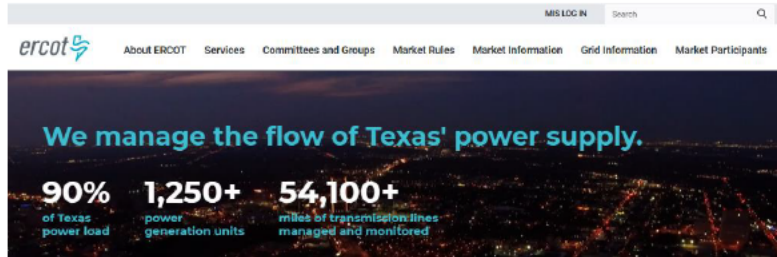
Key Takeaway: Winter Storm Kingston was less severe than several historical storms that have impacted the ERCOT region, however, it was the most severe storm this winter season.

Historical Non-Intermittent Renewable Resource (IRR) Outage Data from Previous Winter Storms



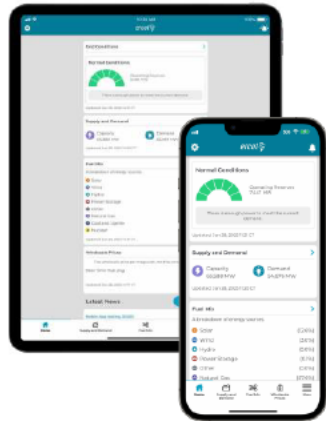
Key Takeaway: Non-IRR outages stayed at a consistent level across the past three winter storms.

ERCOT Communication Channels



ERCOT website – www.ercot.com

- Today's outlook and grid conditions
- Daily and seasonal weather
- Market information, prices and more



New ERCOT mobile app

- Real-time updates
- Wholesale pricing
- News and alerts

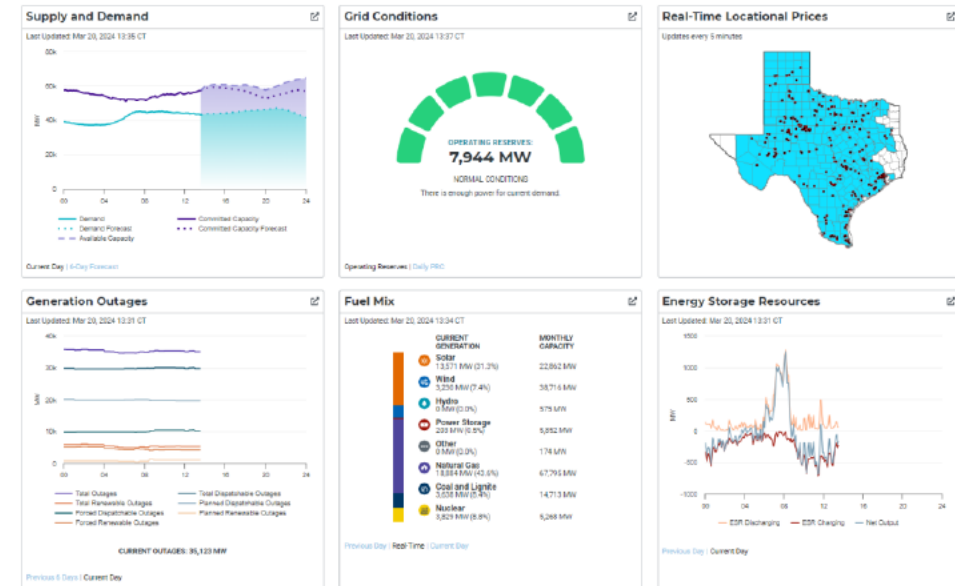


Grid and Market Conditions

These dashboards offer a snapshot of current conditions in the ERCOT system. The timestamp on each indicates when the information was last updated. Click the Full View link on a dashboard for an expanded display.

*Note: The 6-Day Forecast graph should only be used as a relative indication of future system conditions. Due to uncertainties associated with the longer-term nature of the forecasts used, both the Available Seasonal Capacity and Demand Forecast may adjust significantly as the Operating Day approaches.

*Note: Capacity available from demand response programs is not reflected in the Current Day and the 6-Day Forecast graphs unless these programs have been deployed.



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