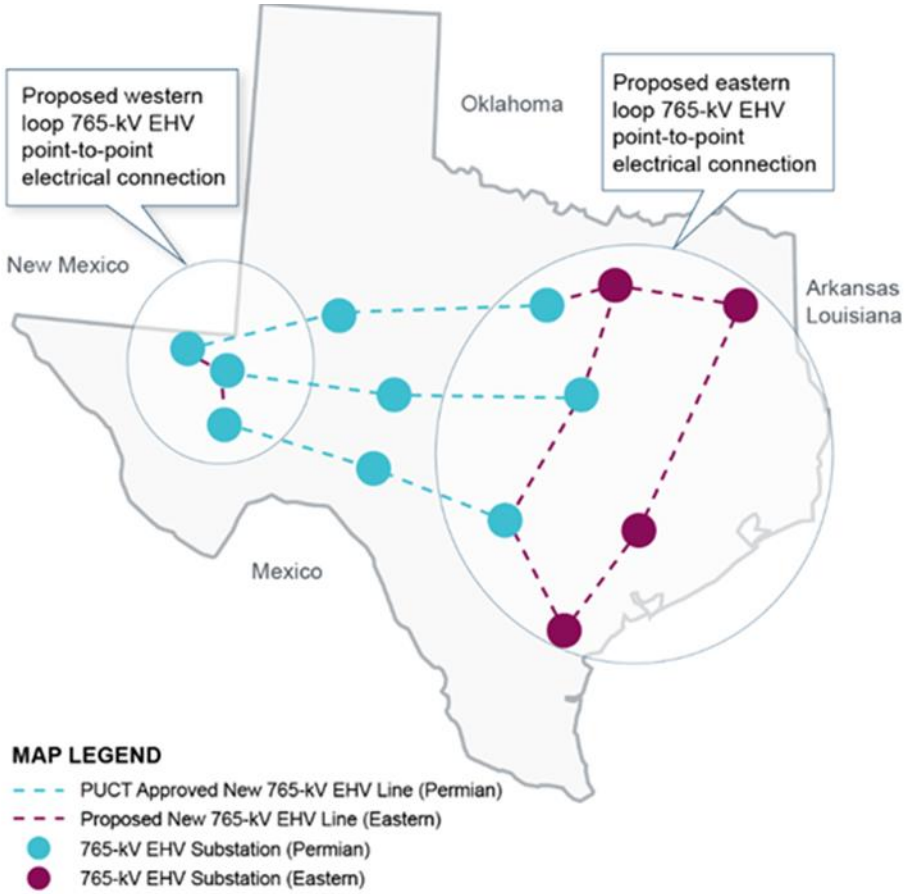

Welcome
Annual ERCOT Membership Meeting
2025

Texas 765-kV Strategic Transmission Expansion Plan

- **ERCOT proposed new 765-kV backbone to facilitate addition of large amounts of additional loads and generation**
  - Public Utility Commission of Texas (PUCT) has approved the western portion of this plan (blue lines)

- **Benefits of 765-kV EHV transmission:**
  - Increased transfer capability to load centers
  - Flexibility in generation resource siting
  - Lower line losses
  - Lower congestion costs
  - Outage coordination capacity

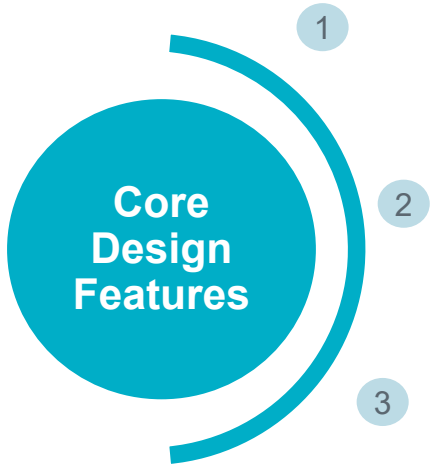


*Geographic locations for proposed new lines are meant to demonstrate general electrical point-to-point connections. Specific routing of any new transmission infrastructure is determined by the PUCT as part of the Certificate of Convenience (CCN) process with Transmission Service Providers.

Real-Time Co-Optimization Plus Batteries (RTC+B) Implemented December 5, 2025

Key market design change to provide operational and reliability benefits to the ERCOT System.

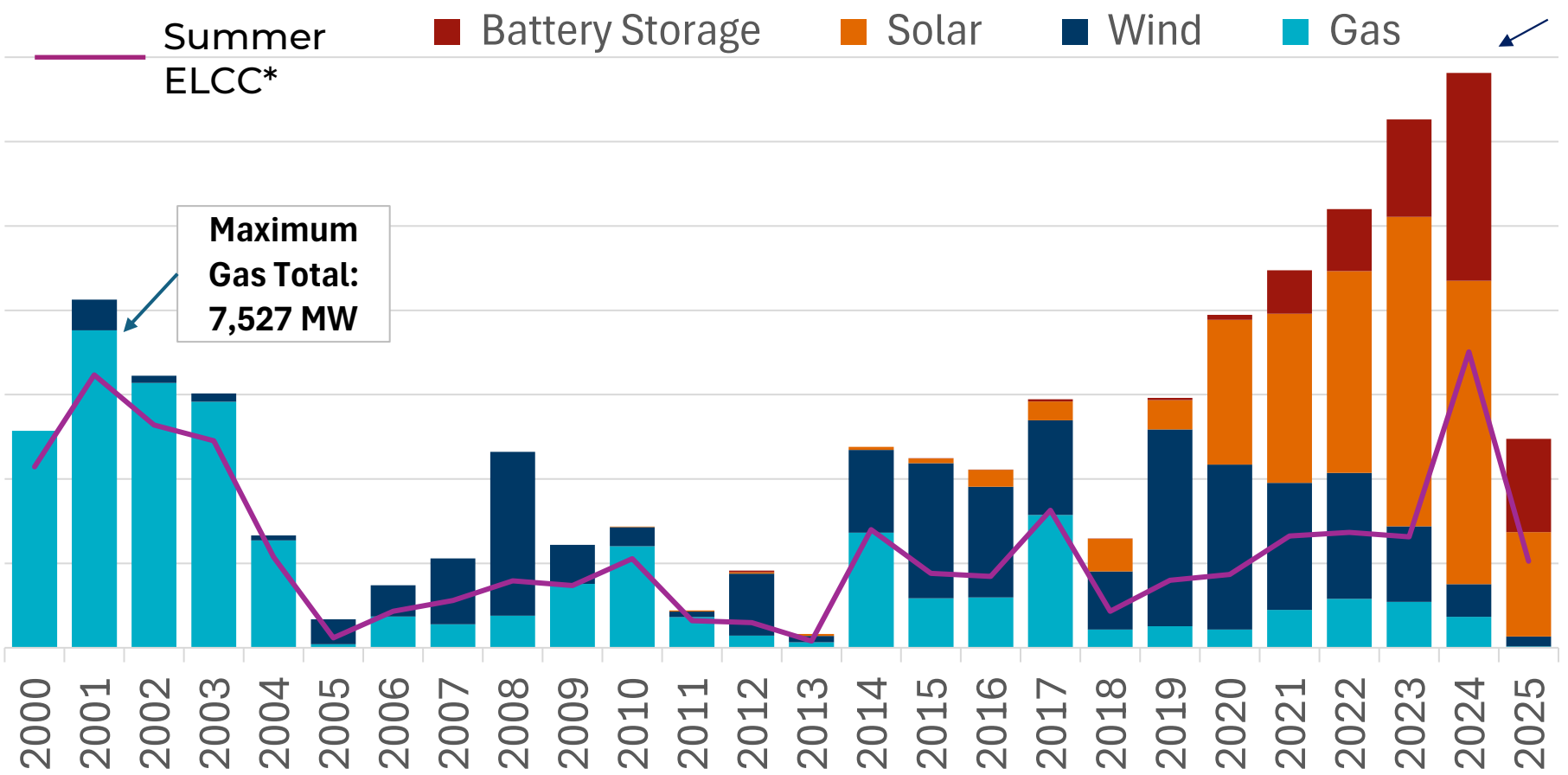
- Provide more flexibility in real time for ERCOT to efficiently procure energy and Ancillary Services.
- The new functionality will include improvements to modeling and consideration of batteries and the state of charge they have available for providing energy and Ancillary Services.
- More efficient congestion management resulting from the ability to use a wider variety of resources to solve transmission constraint



1. 5-minute co-optimization of Energy & Ancillary Services (AS)
2. Financial-only Day-Ahead Market AS awards (no physical must-offer)
3. Unified single-model batteries with state-of-charge optimization

1. Greater efficiency and flexibility in dispatch
2. Increased participation and liquidity in AS markets
3. Scarcity pricing shifts from Operating Reserve Demand Curve (ORDC) adders into AS Demand Curves

Capacity Additions by Year

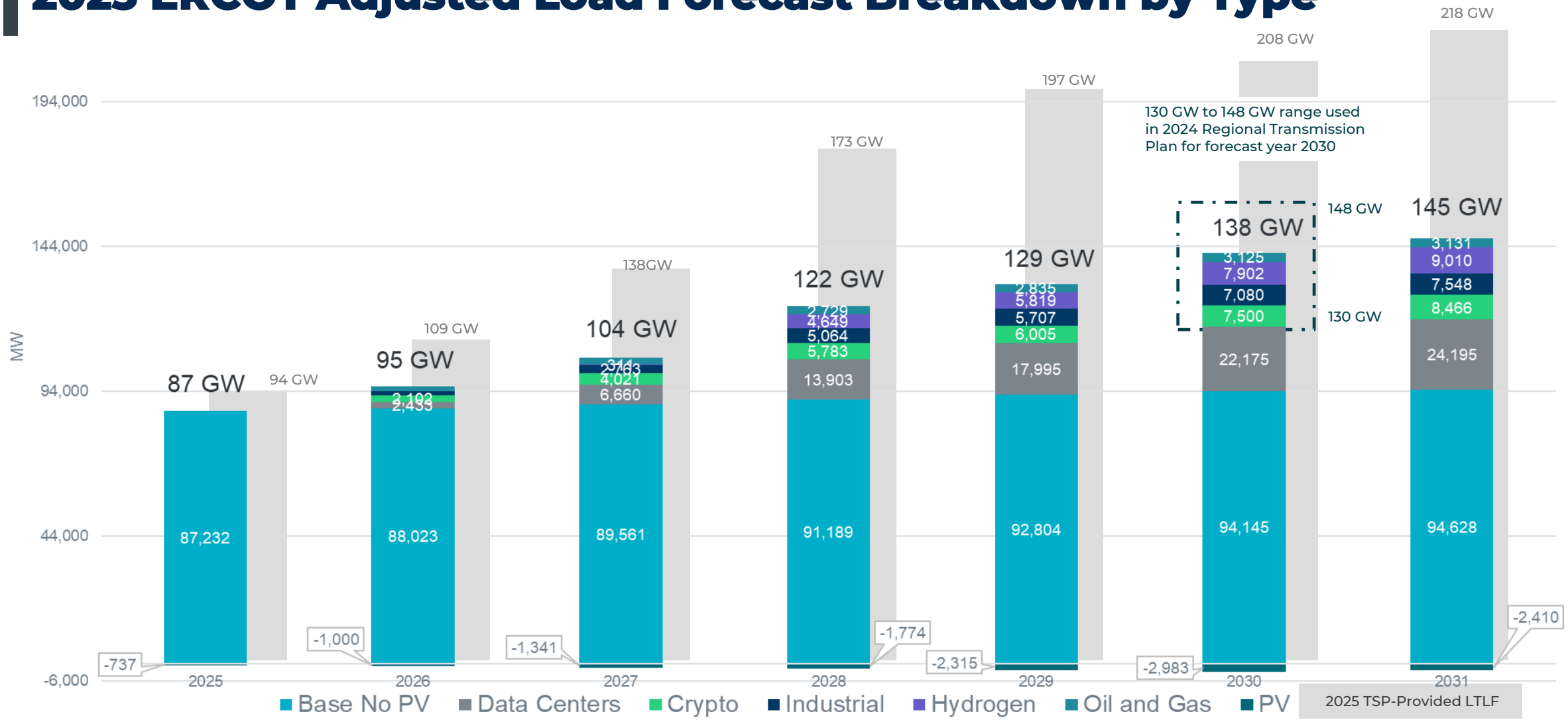


Maximum Aggregate Total: 13,626 MW

* Summer ELCC is effective load carrying capability. Gas additions are comprised of combined-cycle, internal combustion engine, and steam turbine units.

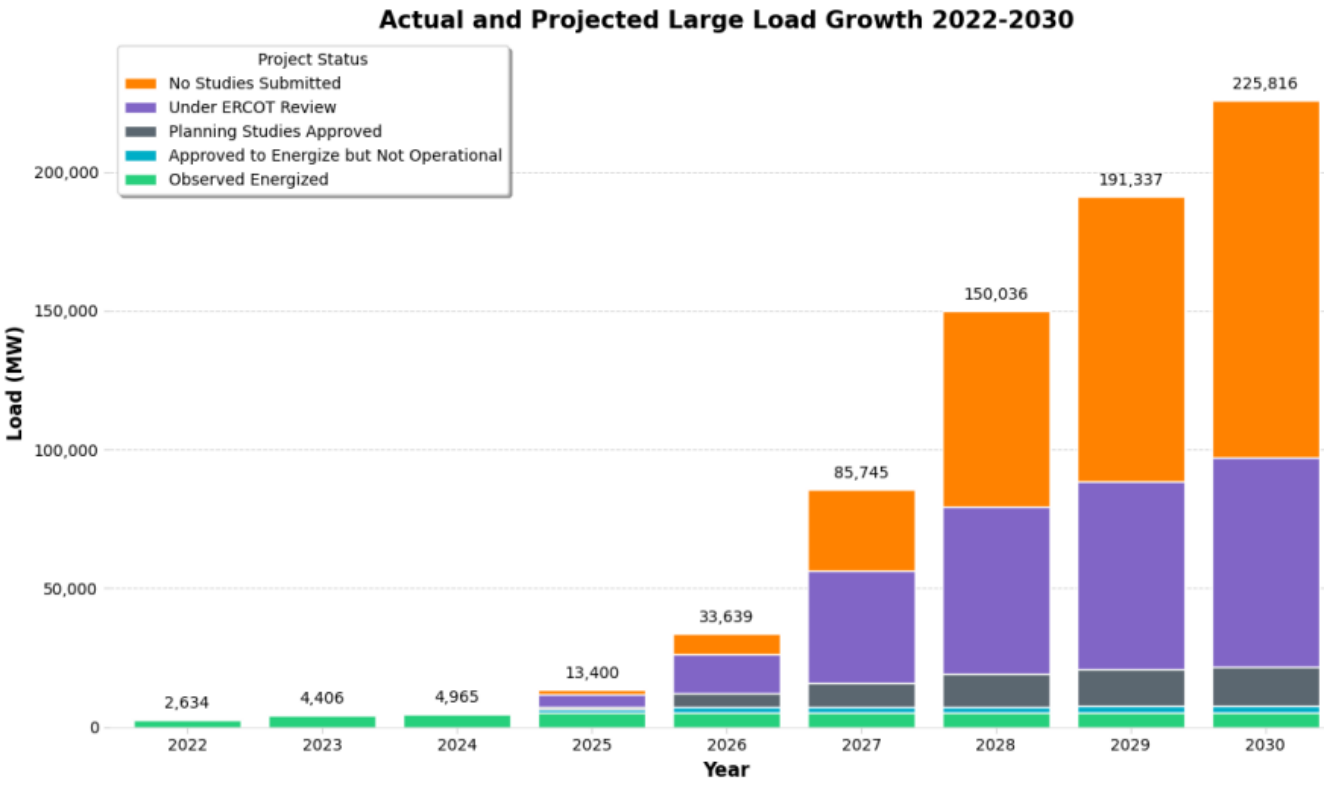
Key Takeaway: The Effective Load Carrying Capability (ELCC) is an effective view of generation's ability to serve demand. The capacity additions in 2024 were 65% higher than 2021, but the 2024 ELCC was only slightly higher than 2001, reflecting the large proportion of gas resources in that year.

2025 ERCOT Adjusted Load Forecast Breakdown by Type

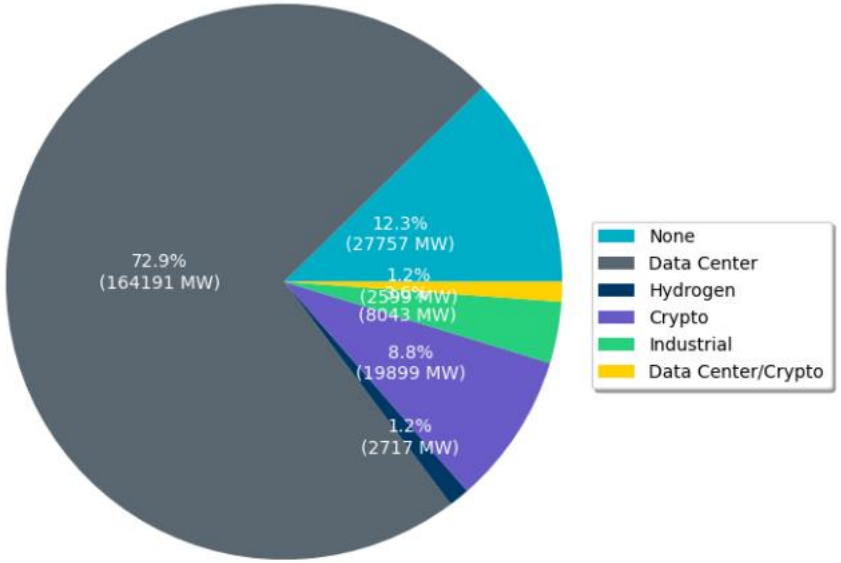


Key Takeaway: After adjustments, Data Center Load remains the largest growth by type.

Large Load Interconnection Requests



Large Loads by Project Type



Key Takeaway: ERCOT is tracking approximately 226 MW of Large Loads seeking interconnection (compared to 63 GW in December 2024) of which ~73% are data centers. ERCOT is an active participant in the PUCT process to implement Senate Bill 6 legislation.

ERCOT Facts

85,508 MW

Record peak demand (August 10, 2023)

103,105+ MW

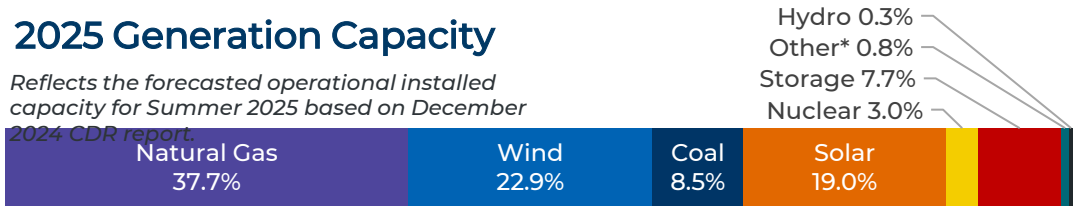
Expected capacity for Summer 2025 peak demand (December 2024 CDR)

$3.8 billion

Transmission project 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% dues 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*

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

40,566 MW

Wind

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

28,550 MW
Generation Record
(March 3, 2025)

69.15 %
Penetration Record
(April 10, 2022)

35,123 MW

Solar

of utility-scale installed solar capacity as of October 2025

29,887 MW
Generation Record
(September 9, 2025)

56.60 %
Penetration Record
(March 20, 2025)

~75 % (~36,966 MW)

Preliminary **Wind + Solar** Penetration Record (March 2, 2025)

15,485 MW

Battery Storage

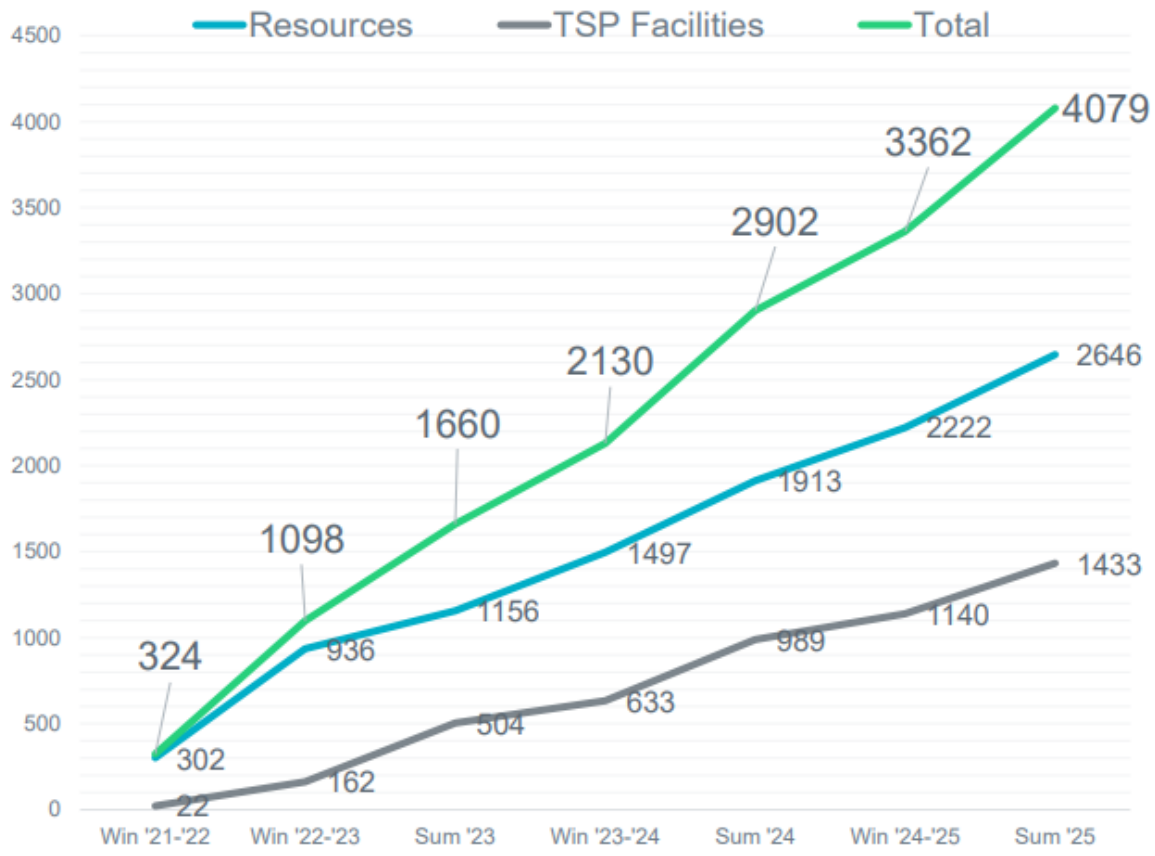
of installed energy storage capacity as of October 2025

4,056 MW

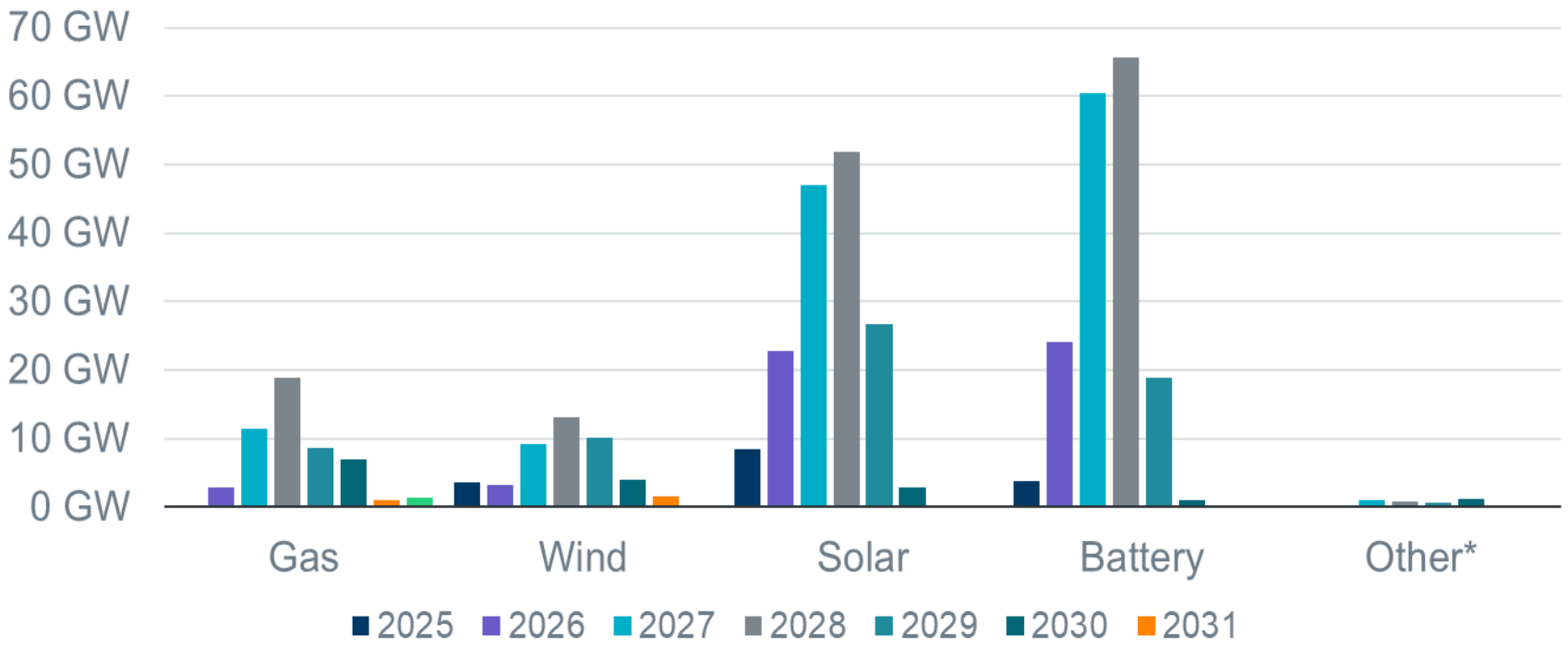
Energy Storage Discharge Record
(October 10, 2025)

Cumulative Inspections by Season

- Over the course of four winter seasons and three summer seasons, ERCOT has completed 4,079 weatherization inspections.
- The weatherization program has had a significant positive impact on the reliability of the bulk electric system during winter and summer.
- ERCOT evaluates individual facility outages during peak demand periods and will follow-up to assure that facilities have implemented weather emergency preparation measures that can reasonably be expected to ensure sustained operation at the required hot and cold conditions.



Generation Interconnection Requests



1,994 active generation interconnection requests totaling **435,206** MW as of November 2025.

Queue totals:

- Energy Storage 174,369 MW
- Solar 159,537 MW
- Wind 44,786 MW
- Gas 52,656 MW

Other includes petroleum coke (pet coke), hydroelectric, fuel oil, geothermal energy, other miscellaneous fuels reported by developers, and fuel cells that use fuels other than natural gas. (Numbers exclude capacity associated with projects designated as Inactive per Planning Guide Section 5.2.5).

Key Takeaway: Solar and Energy Storage account for 78% of the amount of generation seeking interconnection.


Thank you to all Market Participants.
We appreciate your support.