ERCOT MONTHLY

MARCH 2025

A RECAP OF KEY INFORMATION FROM THE PREVIOUS MONTH, A LOOK AT THE UPCOMING MONTH, AND A SNAPSHOT OF ADDITIONAL KEY ITEMS

Contents

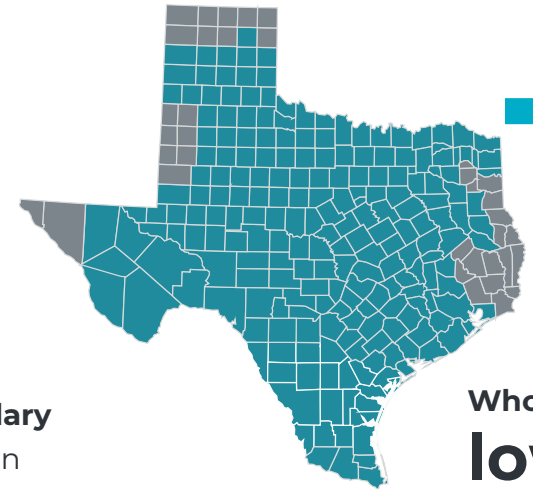
ercot

February 2025

Look Back

80,525* MW

February 2025 demand record & all-time winter record (W.S. Kingston)



55,860 MW

February 2024 for comparison

ERCOT procured **$14.5** million in **Ancillary Services** for grid reliability in February 2025

Wholesale pricing was slightly **lower** than this time last year

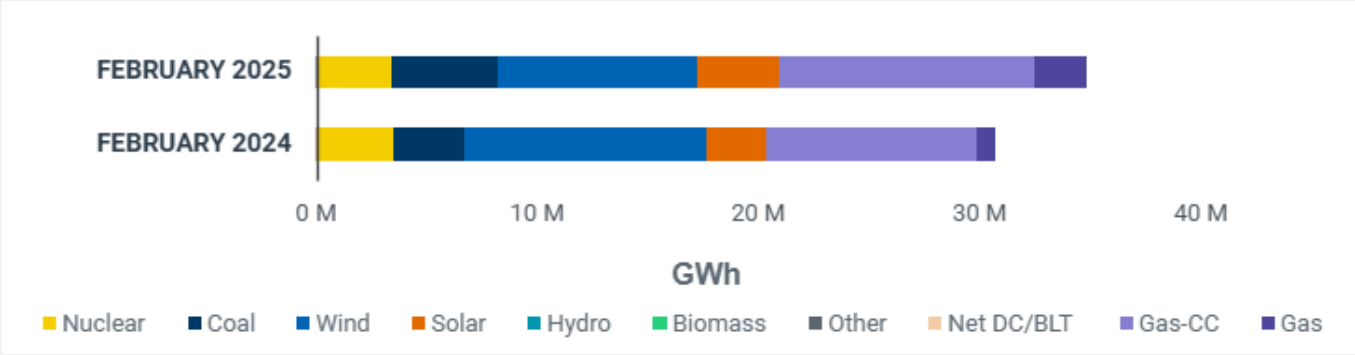
*unofficial until final settlements

24,354 MW
February solar generation record
February 28

27,064 MW
max February wind generation
February 17

4,622 MW
February battery generation record
February 20

February Energy Generation Comparison 2025 vs. 2024



April

Outlook

April Monthly Outlook for Resource Adequacy (MORA)

In the April MORA report, probabilistic modeling results indicate a less than 1% chance of having to declare an Energy Emergency Alert (EEA). The highest risk hours are from 6-9 p.m. CST, with the 5-6 p.m. hour being the riskiest. ERCOT's April 2025 peak load forecast is about the same as the April 2024 forecast despite the expected addition of 5,600 MW of new interconnected load. The reason is that ERCOT is forecasting normal April temperatures as opposed to the higher-than-normal temperatures that were forecasted for last April. Note that Spring 2024 turned out to be the fourth warmest on record for Texas and the warmest since 2012 (the warmest on record). The full report can be found on the Resource Adequacy page.

Shoulder Months and Planned Maintenance Outages

The shoulder months are the spring (March 15 – May 15) and fall months (September 15 – December 15), when ERCOT works with Qualified Scheduling Entities and Transmission Service Providers to schedule their maintenance outages so their equipment and facilities can be ready for the upcoming peak demand season.

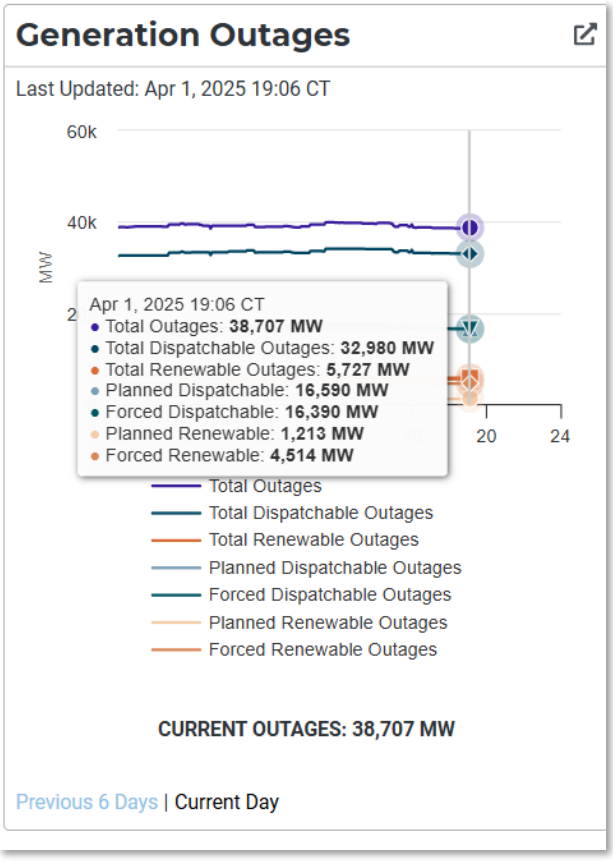
Generally, ERCOT can support most requested outages; however, there are areas where a limited number of outages can be taken at the same time to ensure reliable grid operations. In those areas, ERCOT coordinates with the requested entities to identify options to support the required maintenance. The options include, but are not limited to:

- adjusting the outage schedule
- reducing outage restoration time
- adjusting the system configuration when feasible and reliable

The outage information and available slots are posted on ERCOT.com for review and scheduling.

ERCOT also has a generation outage dashboard that provides a graphical representation of planned and forced generation outages within the ERCOT system.

It is important to note that all generation types require some level of maintenance.



Advance Action and Operating Condition Notices

On any given day during shoulder season, fewer operating reserves may be available while equipment is down for maintenance work.

ERCOT issues notices almost daily, which is one way we communicate with our generator and transmission owners (also referred to as Market Participants (MPs)). It's important to note that these notices are directed to and intended for the generators and transmission owners and are posted for transparency into grid operations.

As ERCOT manages supply and demand on the grid, especially during the shoulder seasons, we might issue an **Advance Action Notice (AAN)** to aid us in reliably managing the grid. The AAN is an operational notice used as a heads-up to MPs that ERCOT needs to adjust or delay some scheduled maintenance outages due to a change in forecasted conditions.

REASONS FOR AANs

- **Hotter temperatures**
- **High number of scheduled and/or forced outages**
- **Low renewable generation**
- **Combination of these**

AANs issued with the requested MW

Spring 2025
- None as of April 8

Spring 2024
- April 11 (9,950 MW)
- April 26 (2,832 MW)
- May 2 (6,060 MW)
- May 15 (3,377 MW)
- May 16 (5,265 MW)

Spring 2023
- March 16 (3,071 MW)
- March 29 (7,808 MW)
- April 18 (2,280 MW)
- April 20 (1,720 MW)
- May 3 (2,900 MW)
- May 4 (3,380 MW)
- May 11 (4,500 MW)
- May 16 (3,000 MW)

OCNs in the last 3 years

2025: 13
2024: 23
2023: 42

The request to adjust or delay a maintenance outage often leads to a positive market response, which provides the additional capacity ERCOT was looking to obtain. We then work to reschedule any delayed maintenance so the operators can be ready for the upcoming peak demand season. As a reminder, our AAN tool uses our most conservative forecasts including the worst wind forecast. By issuing the AAN, the market has time to react and may adjust their own outages in order to be available.

Per ERCOT Protocols, if the expected grid conditions still exist 24 hours after the AAN is issued, due to some Generators choosing to proceed with their planned outages during that time, ERCOT conducts an **Outage Adjustment Evaluation (OAE)** and may determine the need to issue **Outage Scheduling Adjustments (OSAs)**, which are formal withdrawals of Resource-planned outages, to the extent these outages can be adjusted.

An AAN is only one type of **Operating Condition Notice (OCN)** which ERCOT might issue as a heads-up to MPs that certain protocol criteria for issuing these notices have been met. These OCNs may cover a variety of topics, such as Extreme Cold/Hot Weather, Reserve Capacity Shortage, Fire Risk, Tropical Weather, and Analytical Tools not working. For a specific example, from last May, the OCN stated: *Temperatures have met our criteria of 94 degrees or higher in the months of October – May between San Antonio and the Dallas Fort Worth region*. MPs can then take any actions necessary to be prepared.

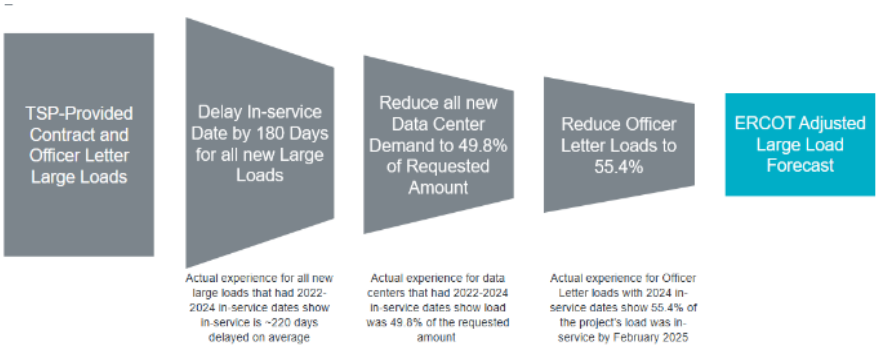
Additional Items of Note

New Load Forecast

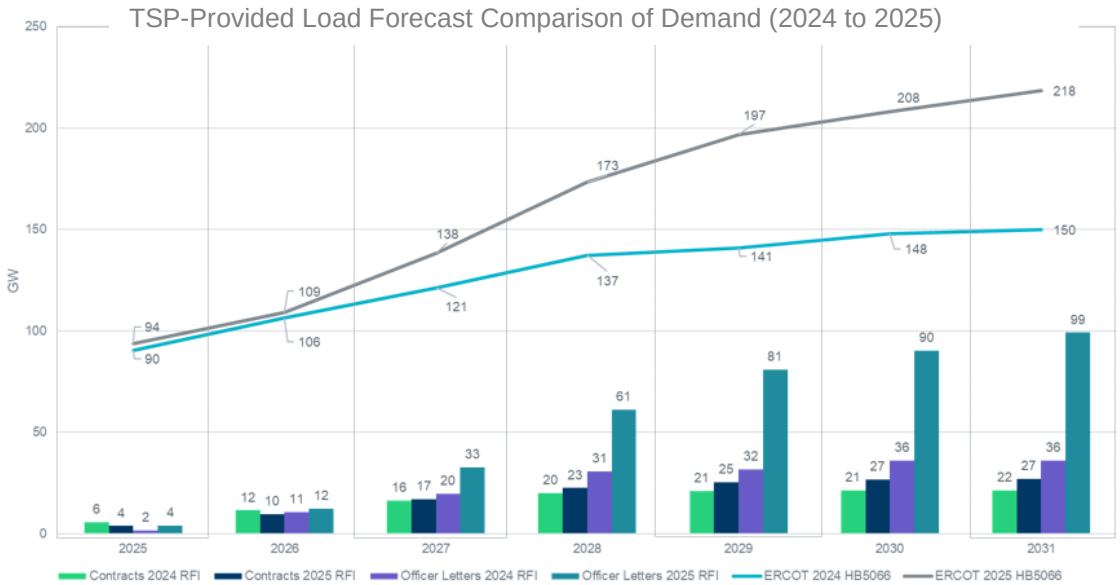
Following the implementation of House Bill 5066, which changed the methodology by which load is incorporated into load forecasts from transmission service providers (TSPs), there has been a significant jump in projected electric demand. The sum of these forecasts has increased year-over-year from 150 GW in 2030 to 218 GW in 2031, with the 2030 forecast revised upward to 208 GW. This surge is primarily attributed to a large number of officer-attested loads, especially from data center projects. A key change in this year's load forecast is the broader participation by TSPs—growing from seven last year to 17 this year—resulting in a substantial increase in reported large load projects, both in terms of raw count and megawatts.

To account for the likelihood that not all of these reported loads will materialize as forecasted, ERCOT developed an Adjusted Large Load Forecast methodology. This approach applies a series of adjustment factors, which are based on observation of the recent progress of planned facilities included in previous forecasts, including:

- 180-day delay from originally requested in-service dates for all new large loads
- 49.8% reduction in the initially requested data center load to reflect more realistic operational start-up levels
- further 55% reduction based on actual trends seen in officer-letter loads during 2024



After applying these adjustments, ERCOT's Adjusted Large Load Forecast for 2031 drops from the TSP-reported 218 GW to an ERCOT-adjusted 145 GW.



Reliability Must-Run (RMR) Braunig Unit 3

ERCOT executed an RMR Agreement with CPS Energy for Braunig Unit 3 on February 25. Braunig 3's outage began March 2, as planned.

Inspections and incidental repairs of major components are underway and progressing according to schedule, with some minor delays due to recent weather conditions, which included high winds and lightning.

On March 28, CPS Energy's contractor determined that Braunig 3's boiler superheater header must be replaced, which is expected to delay the return of the units to mid-July or mid-August. CPS Energy is currently ascertaining replacement costs. The current total cost of discovery repairs, not including the boiler superheater header, is $2.7 million.

Final inspections of the high-pressure/intermediate-pressure steam turbine rotor and other major components are underway; the potential cost and schedule impacts are unknown at this time. Other repair items could result in further delays and costs.

Photos courtesy of CPS Energy

Generator rotor being prepared for inspection

Low-pressure turbine rotor blast cleaning process

Life Cycle Power Mobile Generation Solution Update

As an alternative to committing Braunig Units 1 and 2 through an RMR agreement, ERCOT is working on an agreement with Life Cycle Power to use 15 mobile generators (ranging from 27.5 to 32.6 MW capacity each) that CenterPoint is currently leasing from Life Cycle. CenterPoint has committed to release the Life Cycle mobile generators to ERCOT's use for a period of no more than two years and without receiving any compensation from ERCOT. Under the agreement with Life Cycle, the mobile generators would be moved to the San Antonio area, stationed at CPS Energy substations, and made available 24x7 for ERCOT's dispatch. This solution would allow remote start of the units when necessary to address an actual or anticipated Emergency Condition. CPS Energy is expected to provide interconnection and Qualified Scheduling Entity services for the units, and ERCOT would reimburse Life Cycle for its costs as well as CPS Energy's costs. Life Cycle and CPS Energy's combined costs are estimated to be $54 million.

ERCOT is aiming to have the units in place in Summer 2025 and has requested the Public Utility Commission of Texas (PUCT) to provide good-cause exceptions to compliance with various rules to allow timely implementation of this proposal solution while still ensuring reliable interconnection. On April 3, the PUCT voted to approve ERCOT's request. **If the Braunig 3 return is delayed through part of the summer peak period, the Life Cycle Power solution would be expected to provide even greater value.**

NOGRR245 Update

NOGRR245 replaced the previous voltage and frequency ride-through requirements for Inverter-Based Resources (IBRs) and Type 1/Type 2 Wind-Powered Generation Resources (WGRs) with ride-through requirements consistent with those in the IEEE 2800-2022 standard. The PUCT approved NOGRR245 in September 2024. **These new requirements will better protect grid reliability as IBRs continue to increase in the generation mix**.

Key Dates
October 1, 2024
NOGRR245 effective date

April 1, 2025
Deadline to submit a request for extension or a notice of intent to request an exemption

December 31, 2025
Deadline for existing units to complete maximization unless extension granted by ERCOT

December 31, 2027
FRT requirement extension cannot go past this date

December 31, 2028
VRT requirement extensions cannot go past this date

ERCOT developed an intake process for data associated with the requirements established through NOGRR245, issued four Market Notices, and held two workshops for Market Participants since the Commission approved NOGRR245.

ERCOT sent 795 Requests for Information (RFIs) to resources in the Network Operations Model nearing commissioning or already commissioned. A total of 765 responses were received by the April 1 deadline. Of those, 205 resources requested an extension to the December 31 deadline to comply, and 28 resources provided a Notice of Intent to request an exemption to the ride-through standards. There were 59 resources that requested both an extension to the deadline and also an exemption.

Legislative Update

ERCOT continues to serve as a resource to legislative offices and committees during the 89th Texas Legislative Session, offering technical expertise on issues and legislation relevant to the ERCOT electric grid. Throughout the month of March, ERCOT executives and other subject matter experts served as resource witnesses on multiple pieces of grid-related legislation. These efforts included resource witness testimony before the House Committee on State Affairs and the Senate Committee on Business and Commerce.

In addition to state-level engagement, ERCOT President and CEO Pablo Vegas provided invited testimony before the United States House of Representatives Committee on Energy and Commerce, *Subcommittee on Energy*. Appearing alongside executives from grid operators across the country, Mr. Vegas discussed the operational and reliability challenges of operating a modern electric grid, the changing nature of the generation fleet, and the growing demand of large loads on the system.

ERCOT remains committed to supporting policymakers at all levels as they consider legislation impacting the reliability and resiliency of the electric grid. Additionally, ERCOT continues to implement the various provisions from previous legislative sessions. A full listing of the of legislative provisions currently undergoing the implementation process can be found in the most recent edition of the ERCOT Legislative Status Report.

ERCOT Innovation Summit

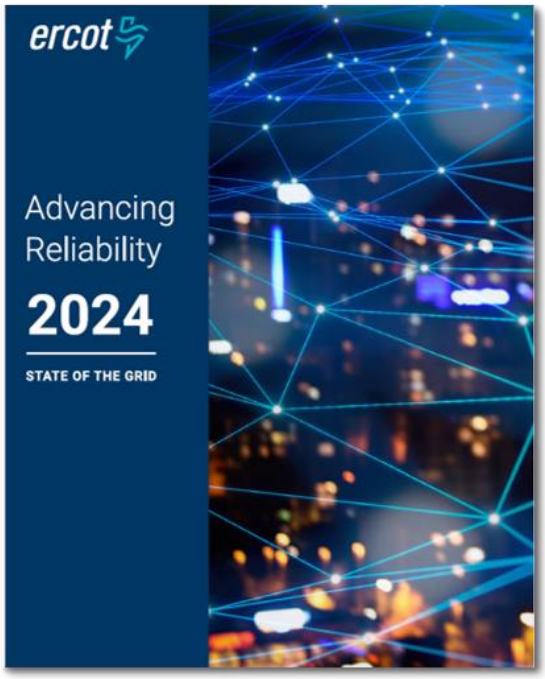
ERCOT is hosting its second annual Innovation Summit on May 6 in Round Rock, Texas. We will discuss shaping the grid of the future, share perspectives from stakeholders with different vantage points, brainstorm, and witness innovation in action.

ERCOT will also showcase work occurring on grid transformation initiatives internally and within the research and innovation ecosystem. The 2025 agenda includes:

- Grid Transformation Initiatives
- 2025 Innovation Roadmaps
- Data Centers Interconnection Panel
- Demand Response Panel
- Probabilistic Methods for Planning Panel
- Industry Innovation in other ISOs/RTOs Panel

The event is free with limited in-person capacity to attend. Secure your spot by registering at the event website. You can also attend virtually.

Advancing Reliability State of the Grid Report



Advancing Reliability: 2024 State of the Grid is the first State of the Grid report by ERCOT since 2020. This report outlines the continued improvements to secure a more reliable and resilient Texas electric grid. Since 2021, the Texas Legislature and the PUCT have prioritized electric reliability and resiliency through major market changes. These efforts have been the foundation for significant progress. In addition to these improvements, we continue working in partnership with the PUCT on additional efforts highlighted in our new report.