## ERCOT MONTHLY

**APRIL 2025** 

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

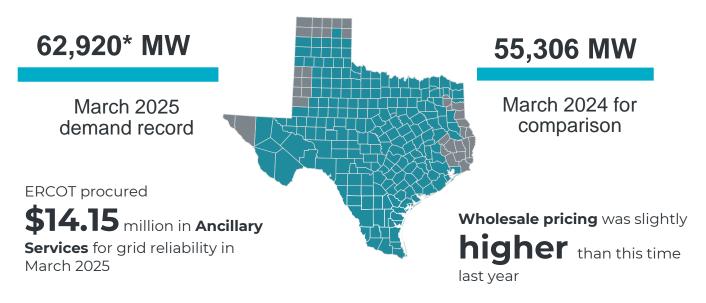
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### March 2025

### **Look Back**



\*unofficial until final settlements



26,332 MW

March solar generation record

March 20



28,550 MW

max March wind generation
March 3

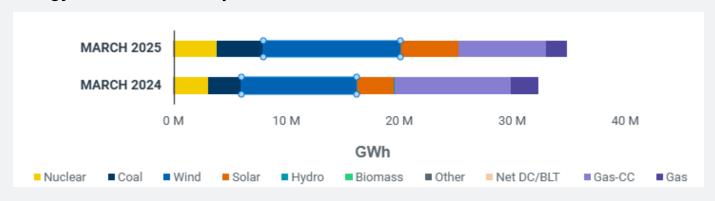


5,633 MW

March battery generation record

March 4

### **Energy Generation Comparison**



### May

### Outlook

### May Monthly Outlook for Resource Adequacy (MORA)

For the May 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 8-10 p.m. CDT. Under typical grid conditions, there should be sufficient generating capacity available. The expected peak demand hour is from 5-6 p.m. The possibility of low wind production remains a significant risk for maintaining adequate reserves for the May peak demand day. The full report can be found on the Resource Adequacy page.

### **Additional**

### Items of Note

### **Permian Basin Voltage Decision**

At the April 24 Open Meeting, the Public Utility Commission of Texas (PUCT) approved the 765-kV import path buildout into the Permian Basin. This system will be the first time 765-kV will be used within the ERCOT grid. (It has been used in other parts of the U.S. since the 1960s). This decision completes the Permian Basin Reliability Plan, which was created to reliably serve the significant load growth in the Permian Basin region.

ERCOT and the Transmission Service Providers estimate the extra-high voltage plan could cost 22% more than the lower-voltage alternative; however, it will provide many long-term benefits, including strengthening the reliability and resiliency of the grid. Higher voltage lines can carry more power and meet higher levels of demand as the state continues to grow, reduce expensive congestion on existing transmission lines, and could save money in the long-term by avoiding the need to build new transmission lines to catch up to future demand. More information can be found in the PUCT news release.

### Texas Energy Fund (TEF) Applications Advance to Due Diligence

The PUCT approved an order sending four additional projects to its due diligence phase. Together, the four projects seek \$1.08 billion in TEF funds and represent more than 1,900 MW of potential new dispatchable generation. The revised TEF portfolio includes 18 total applications, \$5.04 billion in requested TEF funds and ~9,200 MW in potential new generation.

Revised portfolio includes:

- 18 applicants
- ~9,200 MW of dispatchable generation
- seeking \$5.04 billion in loans

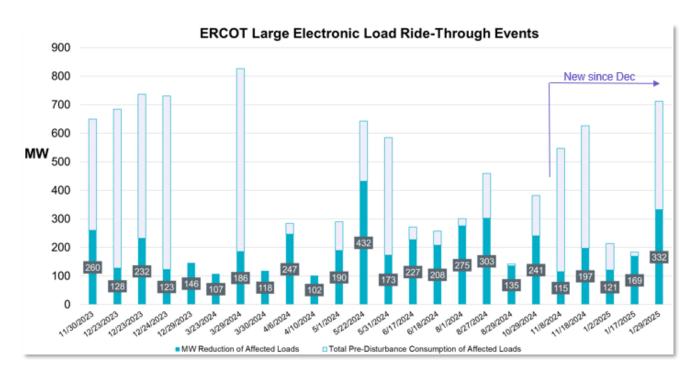
### **Addressing Large Load Trips**

As ERCOT and other regions continue to see large load growth (data centers, crypto mining, etc.), these grids are experiencing ride-through issues regarding faults and large load drops. ERCOT is working on Planning Guide Revision Request (PGRR) 122 to require that, for any fault on a system, more than 1,000 MW of load cannot drop off at a given time in a particular area. The system will need to be reinforced, or the load center will need preventative measures to stop any large drop in usage.

Power electronic large loads reduce consumption quickly when system faults occur in their area. The magnitude and frequency of these events will likely increase as more of these types of loads are connected to the system, especially when they are concentrated in one area.

A fault on the electric grid is when something goes wrong with the flow of electricity — like a lightning strike, a broken wire, or a tree falling on a power line — causing a short circuit and electricity to move in a way it shouldn't. This can make parts of the grid shut down or trip off to protect equipment.

When there is a fault near a large load, the voltage dips. Since the large load facility isn't designed to ride-through a fault, some of the load will stop using the electricity. (The IBR ride-through issue is the opposite – where the IBR quits generating, decreasing frequency). It could be that there are several large load facilities in one area, so it isn't necessarily one crypto miner, it could be a few in one area that don't ride through the fault event, leading to a significant drop in usage. This leads to an increase in frequency, which is problematic for the stability of the ERCOT grid. ERCOT has seen a continuing occurrence of this type of event in the last year. PGRR122 is currently going through the stakeholder process.



### Firm Fuel Supply Service for Winter 2025-2026

The PUCT agreed to move forward on Firm Fuel Supply Service (FFSS) for the Winter 2025-2026 Request for Proposals (RFP) using the current program structure (as opposed to expanding the pool of eligible resources for this upcoming RFP season). PUCT staff will open a rulemaking on FFSS to consider a possible expansion of resources for Winter 2026-2027 and how such a program would be structured.

FFSS is a reliability service directed by legislation from the 87<sup>th</sup> Texas Legislature. FFSS is an additional source of onsite fuel for some generators should there be natural gas limitations. The contracting period for FFSS runs from November to March each year. The service was designed to provide additional grid reliability and resiliency during extreme cold-weather conditions by compensating qualified Generation Resources that meet a higher resiliency standard. FFSS has been utilized three times since its implementation in 2022.

### **ERCOT Enters Patent Licensing Agreement with Lancium**

On April 10, ERCOT entered into a licensing agreement with Lancium, LLC to license certain parts of Lancium's U.S. patents at no cost to ensure that entities registered with ERCOT as Controllable Load Resources (CLRs) are able to participate in the ERCOT market and provide Ancillary Services without being subject to allegations of infringement of Lancium's patents. Based on informal feedback received from stakeholders, the threat of patent infringement litigation was likely acting as a barrier to entry for potential CLR registrants. Obtaining this patent license from Lancium should encourage greater CLR participation in the ERCOT market with that potential barrier removed. Because ERCOT was able to license the patents from Lancium at no cost, this not only saved stakeholders a potential fee but also eliminated any need for ERCOT to develop a structure to seek reimbursement from sublicensees.

ERCOT took action through issuance of a <u>Market Notice</u> to deem all entities that register as CLRs to be sublicensees to that license. The executed license agreement is posted to the <u>Load Resource Participation</u> page. For additional information on the license, refer to the explanation included in the "Controllable Load Resource Patent Sublicense" subsection on the <u>Load Resource Participation in the ERCOT Markets</u> page of the ERCOT website and ERCOT's <u>presentation under agenda item 11</u> to the ERCOT Board of Directors at the April 7-8 meeting.

### **Board of Directors Meeting Highlights**

ERCOT Vice President, System Planning and Weatherization Kristi Hobbs presented an overview of the exit strategy for the Reliability Must-Run (RMR) of the CPS Energy Braunig Unit(s) and Life Cycle Power Agreements. The Agreements are related to the RMR of CPS Braunig Unit 3 and the 15 Life Cycle Power mobile generators identified as an alternative to committing Braunig Units 1 and 2 to ensure transmission system reliability in the San Antonio area. Per ERCOT Protocol, the presentation reported feasible alternatives that may, at a future time, be more cost-effective than the continued renewal of the existing RMR Agreement.

ERCOT solutions focused on building new or expanding existing Transmission Facilities as alternatives for the RMR and Life Cycle Power Agreements, including acceleration of the San Antonio South Reliability II Project. The ~\$435M transmission project was originally endorsed by the ERCOT Board in April 2024 with in-service dates through May of 2029. Current analysis shows that accelerating the line rebuild portion of the project by moving the expected in-service dates of the Spruce to Pawnee and Pawnee to Tango 345-kV double circuit from December 2028 to September 2026 for the first circuit and from May 2029 to January 2027 for the second circuit could be more cost effective than the continuation of the RMR and Life Cycle Power Agreements. Rebuild of the first circuit could resolve the ERCOT-wide Load Shed (EWLS) risk and result in early termination of the Agreements.

ERCOT has been in discussions with the impacted Transmission Operators including CPS, AEP, and STEC to determine economic impacts and feasibility of accelerating the line rebuild portion of the San Antonio South Reliability II Project. The reliability analysis and confidential ERCOT RMR Exit Strategies Report has now been posted on ERCOT's Market Information System (MIS) secure site.

• The Board's Technology and Security Committee received an overview on "Data Centers: Powering the Internet and Our Modern Economy" from Aaron Tinjum and Josh Levi. The presentation continued a series of emerging technology speakers at the committee that launched last year. Mr. Tinjum and Mr. Levi serve as President and Vice President of Energy respectively of the Data Center Coalition, an organization of leading data center owners and operators, as well as companies that lease large amounts of data center capacity. Member companies have a large presence in Texas.

The Data Center Coalition team provided an overview of the U.S. data center industry, including data centers as both a driver of economic growth and increasing energy demand. While data centers are efficient users of electricity, explosive growth in demand for cloud services and the expanding use of web-enabled devices is expected to increase U.S. data center load to 80 gigawatts (GW) by 2030, up from 25 GW in 2024. Texas is a key growth area for data center development given its tax and regulatory climate, land availability, and access to reliable and affordable energy.

### **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 April, members of the ERCOT Executive Team 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.

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ERCOT President and CEO Pablo Vegas also provided invited testimony before both committees, offering an overview of ERCOT's updated large load forecast and explaining the methodology behind the ERCOT Adjusted Forecast. Mr. Vegas' testimony helped clarify the significant year-over-year changes and the assumptions that informed the updated load forecast projections.

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 legislative provisions currently undergoing the implementation process can be found in the most recent edition of the <u>ERCOT Legislative Status Report</u>.