ERCOT MONTHLY

SEPTEMBER 2024

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

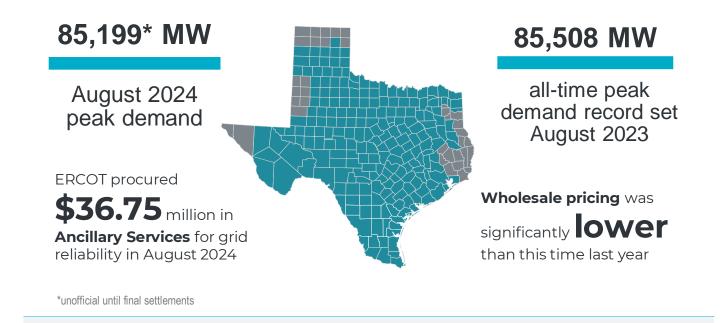
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August 2024 LOOK Back





Solar generation record August 19

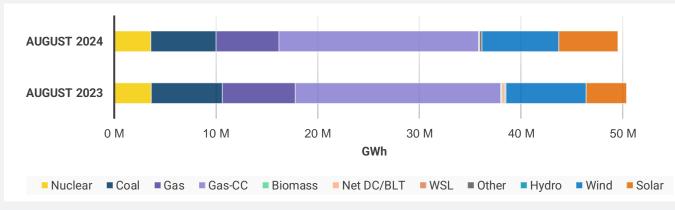


Wind generation peak

3,948 MW

Battery generation record August 20

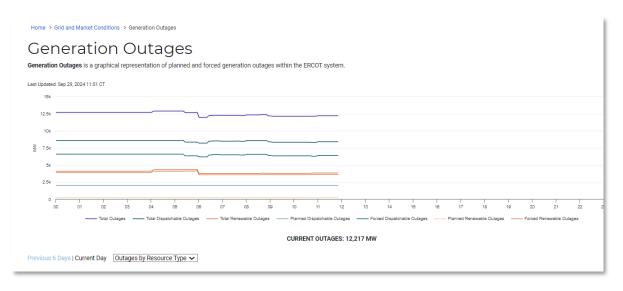
August Energy Generation Comparison 2023 vs. 2024



Shoulder Months

ERCOT Shoulder Months and Scheduled Maintenance Period

The fall shoulder months (September 15-December 15) are when ERCOT works with Qualified Scheduling Entities (QSE) and Transmission Service Providers (TSP) to schedule their generator and transmission facility maintenance, while allowing ERCOT to reliably operate the grid. Generally, ERCOT can support most requested outages; however, there are times where limited outages can be taken at the same time due to the need to ensure reliable operations. When that occurs, 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, and adjusting the system configuration when feasible and reliable. All of the information and available slots are posted on our website for review and scheduling. ERCOT also has a generation outage swithin the ERCOT system.



October Outlook

Monthly Outlook for Resource Adequacy (MORA) Scenarios

Under typical grid conditions, the deterministic scenario indicates that there should be sufficient generating capacity available to serve the expected peak load. Probabilistic modeling results indicate a low risk (5.74% probability) of ERCOT having to declare an Energy Emergency Alert (EEA) in October during the peak load day. The period from 6 p.m. to 8 p.m., when daily loads are typically near their highest levels and solar production is ramping down, has the greatest risk of declaring an EEA. The highest risk hour is 8-9 p.m. The full October MORA is available in <u>PDF</u> and <u>Excel</u> form.

Additional Items of Note

Permian Basin Reliability Plan & EHV Update

ERCOT produced the Permian Basin Reliability Plan, per House Bill (HB) 5066, to identify transmission needs for the Permian Basin region and the transmission upgrades needed to meet the forecasted electric demand in the region (page 9 of the <u>July ERCOT Monthly report</u>).

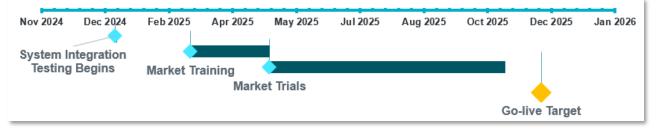
At the September 26 Open Meeting, the Public Utility Commission (PUCT) approved the plan and authorized Transmission Service Providers (TSPs) to begin preparing Certificate of Convenience and Necessity (CCN) applications for eight import paths (five 345-kV and three 765-kV). A decision on which import voltage will be utilized will be made by May 1, 2025. View the <u>PUCT news release</u>.

Concurrently, ERCOT has been working on the 2024 Regional Transmission Plan (RTP), which is the statewide plan scheduled for December 2024 release. Between now and May 1, 2025, study and analysis will continue on the 765-kV transmission lines.

ERCOT has determined that the significant increase in forecasted load across the state justifies consideration of the use of extra high voltage (EHV) transmission infrastructure operated at 765-kV, given that EHV facilities are generally known to provide benefits such as reducing losses for long-distance power transportation, increasing short circuit strength, and improving voltage stability compared with transmission facilities operating at 345-kV, which is the maximum voltage currently used on the ERCOT System. Additional benefits include a reduced impact to Texas consumers due to less right-of-way requirements needed to transfer the same amount of power.

Real-Time Co-optimization + Batteries (RTC+B) Update

The RTC+B program has successfully completed each milestone for business requirements and interface specifications and is now positioned to begin system integration testing in early 2025. ERCOT announced a target go-live date of December 5, 2025, which is earlier than the originally contemplated go-live timeframe of mid-2026 in the ERCOT market.



With RTC+B, ERCOT's Security-Constrained Economic Dispatch (SCED) system will automatically select the most efficient and effective resources available to serve load and meet Ancillary Service needs. The efficiency benefits of this change have been studied and estimated by the Independent Market Monitor (IMM) to save \$1.6 billion per year in reduced energy costs, according to the Potomac Economics study. ERCOT will continue to monitor additional milestones in the coming months to confirm the December 5, 2025, go-live date or adjust if necessary. For more on RTC+B, view the <u>news release</u> or <u>Trending Topic</u>.

2025 Ancillary Service Methodology

Ancillary Services (AS) are an important mechanism for maintaining reliability of the grid and are procured to reduce operational risks associated with variability and uncertainty. The amounts of AS procured have increased in recent years due to increases in intra-hour and hourly net load variability and uncertainty and a policy change in 2021 to maintain an acceptable level of reliability risk. To fulfill requirements in ERCOT Protocols, the AS Methodology is reviewed annually.

ERCOT is proposing several changes for 2025 based on operational experience, forecasted resource mix changes, and taking into consideration the initial findings from the work under the PUC's AS Study. Preliminary assessments of January through July data show:

- Hourly quantities range between 5,290 MW to 10,789 MW.
- The total quantity of AS decreases 1.4% compared to 2024.

Proposed Changes

Regulation Up and Regulation Down: Compute Regulation Service quantities using historic 5-minute net load forecast error instead of 5-minute total variability

Responsive Reserve Service: Change the minimum Responsive Reserve Service Primary Frequency Response (RRS-PFR) limit from 1,185 MW to 1,365 MW based on the historic performance of the ERCOT generation fleet

ERCOT Contingency Reserve Service: Compute quantities as the higher of (1) quantity needed to restore frequency following a large generator trip or (2) quantity needed to respond to intra-hour net load forecast errors, rather than the sum of these two factors. Risk factor updates based on the above change.

Non-Spinning Reserve Service: Compute quantities for 10 pm to 6 am based on historic 4-hour ahead net load forecast error instead of 6-hour ahead

The ERCOT Board of Directors will be voting on these changes in October. If endorsed by the ERCOT Board, ERCOT will then seek the PUCT's approval. If approved before the end of 2024, the new AS Methodology can be effective on January 1, 2025.

ERCOT Issues RFP Seeking Must-Run Alternatives

In March, ERCOT received three Notifications of Suspension of Operations (NSO) from CPS Energy for its Braunig generation sources, units 1-3. The NSOs indicate that, as of March 31, 2025, the generation resources would indefinitely suspend operations. When an NSO is received, ERCOT implements a defined protocol analysis to determine if the generation resource is needed for transmission system reliability. ERCOT has 60 days after receiving the notice to complete its evaluation, and Market Participants can comment on the need for the resource in question. If a resource is needed, ERCOT must begin a process to determine whether to contract for Reliability Must-Run (RMR) service from the resource and simultaneously issue a request for proposal (RFP) for a more cost-effective alternative (referred to as a must-run alternative or MRA) to meet that need. Visit ERCOT's RMR process one-pager for more information.

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ERCOT has determined that the Braunig Resources are needed to support ERCOT system reliability after the proposed March 31, 2025, suspension date because their unavailability would have a material impact on regional transmission reliability. On July 25, ERCOT issued an MRA RFP seeking proposals from QSEs to provide one or more MRA Resources that would address the identified ERCOT system performance deficiencies in a more cost-effective way than committing one or more of the Braunig Resources through an RMR agreement. Under the RFP, QSEs may offer MRA Resources for any one or more seasons during the period of April 1, 2025, through March 31, 2027. The RFP identifies different hours in which an offered MRA Resource must be available each season. Resources eligible to be considered as an MRA Resource include various types of generation, storage, and demand response as further described in the RFP.

Offers of potential MRA Resources are due October 7, 2024. ERCOT will then compare the costs and reliability benefits of eligible MRA Resources with the Braunig Resources. In early December, the ERCOT Board will receive ERCOT's recommendations on whether to procure service, beginning in Spring 2025, from any of the Braunig Resources and/or potential MRA Resources.

New Chair, Vice Chair Named to ERCOT Board of Directors

The ERCOT Board Selection Committee named William H. "Bill" Flores as Chair and Peggy Heeg as Vice Chair of the ERCOT Board of Directors. Flores succeeds Paul Foster, who was named Chair of the ERCOT Board in October 2021. In June 2024, Foster announced he was stepping down. More information can be found in the <u>news release</u>.

ERCOT Launched New App September 30

ERCOT's new mobile app provides easy access to transparent, reliable, and real-time information on ERCOT grid conditions and operations. ERCOT utilized extensive Market Participant and public feedback and testing in creating the new app, which is available for download on iOS devices via the Apple App Store, and on Android devices at the Google Play Store. Current ERCOT mobile app users will need to update their app to the latest version when prompted.

ERCOT is on Instagram (@ERCOT_ISO)

ERCOT is now on Instagram, giving ERCOT an active presence on four social media channels. The goal is to continue providing transparency into grid operations and communicating with our various audiences. ERCOT is also active on X (formerly Twitter), Facebook, and LinkedIn. As part of this expansion, ERCOT is launching an educational campaign, posting social media content to inform ERCOT's audiences about what ERCOT does.



