

ERCOT MONTHLY

OCTOBER 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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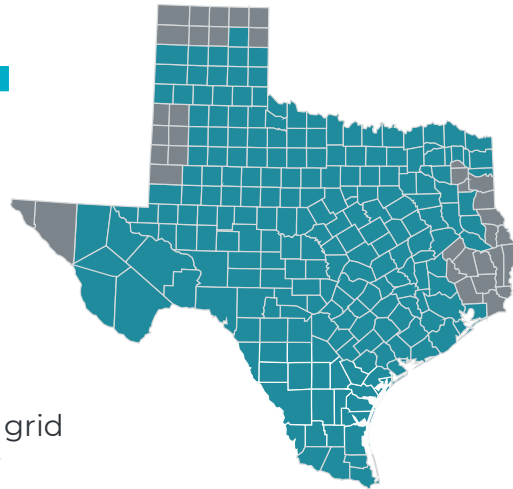


September 2024 Look Back

77,780* MW

September 2024
peak demand

ERCOT procured
\$9.58 million in
Ancillary Services for grid
reliability in September



84,470 MW

September 2023 for
comparison
(September peak record)

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

*unofficial until final settlements



21,667 MW

Solar generation record
September 8



23,274 MW

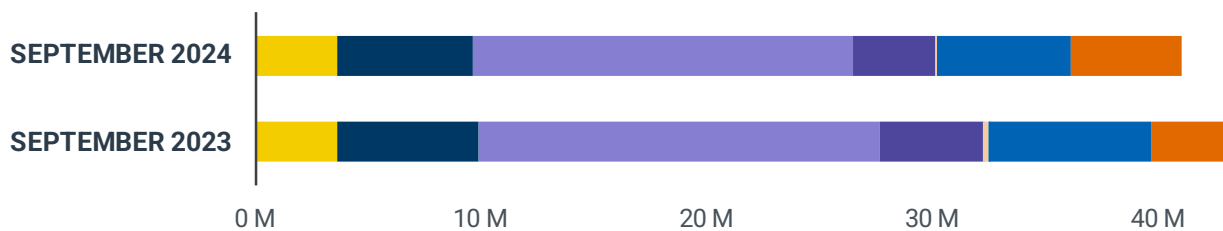
Wind generation peak
September 21



3,414 MW

Battery generation peak
September 20

September Energy Generation Comparison 2023 vs. 2024



■ Nuclear
 ■ Coal
 ■ Gas-CC
 ■ Gas
 ■ Biomass
 ■ Net DC/BLT
 ■ Other
 ■ Hydro
 ■ Wind
 ■ Solar

November Outlook

Monthly Outlook for Resource Adequacy (MORA) Scenarios

Under typical grid conditions, the deterministic scenario indicates there should be sufficient generating capacity available to serve the expected November peak load. Probabilistic modeling results indicate a low risk of ERCOT having to declare an Energy Emergency Alert (EEA). The highest risk hour (8.65% probability) is from 6-7 p.m. CST, when daily loads are typically near their highest levels and solar production is ramping down. There is some EEA risk in the morning hours, the highest for 6-7 a.m. CST, due to model outcomes where the load peaks during those hours if there are winter-like cold temperatures. The full November MORA is available in [PDF](#) and [Excel](#) form.

AANS AND ERCOT SHOULDER MONTHS

[Previously](#) (page 6), we explained how the fall (October-December 15) and spring (March-May 15) months are our shoulder months, when we work with generator and transmission owners to schedule maintenance outages ahead of upcoming seasons. This means on a given day, fewer operating reserves may be available while equipment is down for maintenance work.

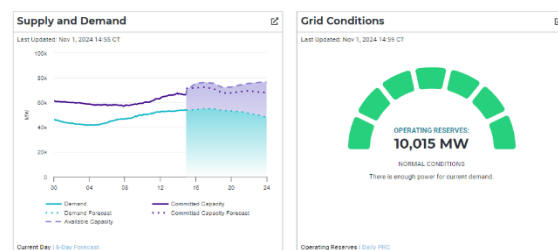
As ERCOT manages supply and demand on the grid, we might issue an Advance Action Notice (AAN), which is a tool used to aid us in reliably managing the grid. The AAN is an operational notice used as a heads-up to Market Participants that ERCOT may need to adjust or delay some scheduled maintenance outages for a specific future period of time unless there is a change in forecasted conditions. While ERCOT generally limits the number of planned maintenance outages that can occur at any point in time to a level that is reliable based on typical conditions, an AAN may be needed due to hotter (or colder) than typical temperatures for the season, a higher number of forced outages, and lower than typical renewable generation – or a combination of these.

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.

Stay Informed

Sometimes there are situations where there aren't outages that can be adjusted or delayed. In these cases, if there are tighter grid conditions with higher demand periods, ERCOT will issue a notification to the public and media through [TXANS](#), post on social media, and distribute a news release.

Another way to stay informed on current and extended grid conditions is to view our [Grid and Market Conditions](#) dashboards. Two, easy-to-view dashboards are *Supply and Demand* (left graph), which shows a current view and a 6-day look ahead, and *Grid Conditions* (right graph), which shows Real-Time operating reserves.

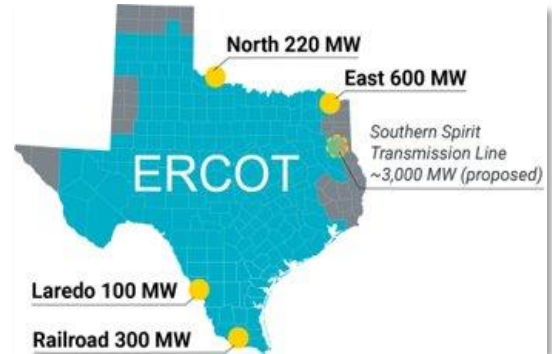


Additional Items of Note

ERCOT's Use of DC Transmission Ties

ERCOT has used transmission ties connecting to neighboring grids since 1984. Direct Current (DC) ties allow the ERCOT grid and the connecting grid to exchange power in emergencies and for entities to trade power between the grids on a commercial basis. Currently, ERCOT has four [asynchronous ties](#) totaling 1,220 MW, with the potential for a fifth called the Southern Spirit line.

- Two DC ties to the Eastern Interconnection
- Two ties to the Mexican system (one DC, one VFT (variable frequency transformer))
- The Southern Spirit line would be the third tie to the Eastern Interconnection



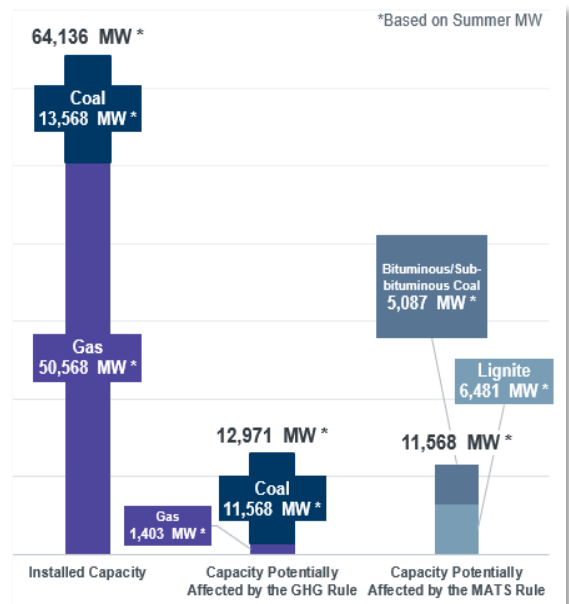
DC ties approved by FERC under sections 210 and 211 of the Federal Power Act do not pose a risk to the independence of the ERCOT grid. Additionally, DC ties don't guarantee any energy will be available if the other grids to which the ties connect are having reliability issues.

Supreme Court Denies Stay on EPA Greenhouse Gas (GHG) Rule

On October 16, the U.S. Supreme Court [denied a stay](#) of the Environmental Protection Agency's (EPA) Greenhouse Gas (GHG) Rule. Texas has been part of an [industry group](#) requesting the rules be delayed from implementation while awaiting the outcome of an appeal before the DC Circuit Court of Appeals.

As we shared [previously](#), the impact of the Greenhouse Gas Rule (GHG) and the Mercury & Air Toxics Standards (MATS) Rule on the ERCOT grid's capacity could be significant. This graph shows the impact these rules could have.

- The GHG Rule will likely lead to retirements of all coal-fired plants (13,600 MW total summer capacity) by 2032 and constrain development of new natural-gas-fired power plants, exacerbating reliability risks given the forecasted load growth and the need for dispatchable, unlimited-duration capacity.
- ERCOT is also concerned about the MATS Rule, given the potential impacts on coal units and, especially, lignite units (6,500 MW). A challenge to the MATS Rule is also being considered by the DC Circuit. The Supreme Court denied a stay of that rule October 4.



ERCOT will continue to assess the impact of these and other EPA rules and to provide data and analysis in support of the state's litigation efforts. Texas will continue to work with other states to appeal.

Board of Directors October Meeting Highlights

- The Board of Directors approved seven revisions to the ERCOT Nodal Protocols along with two revisions to the Nodal Operating Guide and revisions to the Retail Market Guide and Other Binding Documents. These revision requests were all unopposed and recommended for approval by the Technical Advisory Committee (TAC). The revisions are now pending final approval at the Public Utility Commission of Texas (PUC) for consideration at the November 21 Open Meeting. Information regarding recently approved rules and the revision request process is available on the Market Rules section of the ERCOT [website](#).

The Board also remanded [NPRR1190](#), *High Dispatch Limit Override Provision for Increased Load Serving Entity Costs*, back to TAC for further consideration. The Board had previously tabled NPRR1190 to contemplate the language and better understand opposing votes from the Consumer Segment at TAC. Following additional comments filed in the matter by ERCOT and a coalition of stakeholders in the Consumer Segment, PUC Staff expressed concern with the scope of the revision request expanding beyond what was originally proposed and requested that the Board remand the matter to TAC to reassess need.

- The Board of Directors recommended approval of the 2025 Ancillary Services Methodology. ERCOT proposed several changes for 2025 based on operational experience, forecasted resource mix changes, and better accounting of risks. ERCOT is continuously improving its tools for managing variability and risk assessment methodologies, which help better align the quantities of Ancillary Services needed to maintain system reliability to each hour's risk profile. The quantities of Ancillary Services would increase in some hours and decrease in other hours based on system need with an average decrease of 48 MW in 2025 when compared to 2024. The changes do not decrease system reliability.

The 2025 Ancillary Services Methodology is now pending final approval at the PUC for consideration at the November 21 Open Meeting. If approved, the revised Ancillary Services Methodology will be effective on January 1, 2025. Additional information regarding the proposed changes is available in ERCOT's [presentation](#) to the Reliability and Markets Committee.

- ERCOT presented a [Summer 2024 Operational and Market Review](#). The report provided a variety of metrics analyzing grid and market performance for 2024 and comparing outcomes to those of previous summer periods. Key takeaways included:
 - Despite cooler temperatures than last year, load levels remained similar to 2023, indicating increased demand on the Texas grid.
 - A wind generation record and several solar generation records were set this summer.
 - Both Energy and Ancillary Service costs were lower in Summer 2024 than in the previous two summers.
 - Overall, operations and market outcomes supported reliability needs.

- The Board's Technology and Security Committee received an overview on "Phasor Measurement Units (PMU) and Wide Area Monitoring Systems (WAMS)" from Jim Follum, Power System Research Engineer at the Department of Energy's Pacific Northwest National Laboratory (PNNL). The [presentation](#) continues a series of invited emerging technology speakers at the committee and focused on grid applications for PMU devices along with use cases and deployment considerations.

Follum highlighted that integration of inverter-based resources (IBRs) is driving increased need and interest in advanced measurement systems. ERCOT gave a follow-up [presentation](#) discussing existing ERCOT PMU applications, barriers, and future plans to expand the streaming capability.

Legislative Update

On Tuesday October 1, ERCOT President and CEO Pablo Vegas and ERCOT Senior Vice President and Chief Operating Officer Woody Rickerson appeared before the Texas Senate Business & Commerce Committee to address the *Managing Texas Sized Growth* interim charge.

The testimony of Mr. Vegas focused on the challenges and opportunities posed by Texas' rapid growth and the increasing demand placed on energy infrastructure. Mr. Vegas discussed the potential role that extra-high-voltage (EHV) transmission lines can serve in supporting the expansion of load growth across the state. The Committee further discussed how high-demand facilities, such as data centers, share in the costs of any needed system upgrades, and whether these high-demand facilities utilize on-site generation, as has been seen in other operating regions.

The testimony of Mr. Rickerson focused on the operational challenges of managing distributed energy resources (DERs) and the efforts underway to modernize grid operations in response to growing demand. The Committee discussed the Aggregated Distributed Energy Resources (ADER) pilot program, which allows small generators and loads to be aggregated and participate in the ERCOT market. It was noted that 11 projects are currently participating in the pilot program, with a goal of reaching 80 MW. Mr. Rickerson highlighted the operational challenges of scaling ADER resources and integrating them effectively into ERCOT's systems, citing issues like nodal pricing and telemetry delays. While the current scale of ADERs is small, Mr. Rickerson acknowledged their potential, but stressed that ERCOT is still working to overcome challenges, including the establishment of standards for managing these resources.

ERCOT continues to implement the various legislative 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](#).