

Texas hits new peak demand record, but supply constraints will limit growth

Article written by Marlene Wilden and originally published in Utility Dive | August 12, 2026

Ascend Analytics says more than 80% of new large loads seeking interconnection will not have matching generation online by 2030, even as data centers and industrial demand continue to surge.



The gas-fired Decker Creek Power Station is seen on July 28, 2026, in Austin, Texas. A recent report cites gas turbine shortages, multi-year development timelines and interconnection bottlenecks as limiting factors preventing enough new generation from coming online to serve proposed large loads in the state.

Dive Brief

- Peak demand in the Electric Reliability Council of Texas territory could reach 120 GW by 2030 – incredible growth of more than 30% above the new, unofficial all-time peak reached on July 22, but notably lower than ERCOT’s own forecasts, according to a market report from Ascend Analytics that was provided to Utility Dive.
- The firm cites gas turbine shortages, multi-year development timelines and interconnection bottlenecks as limiting factors preventing enough new generation from coming online to serve proposed large loads.
- Ascend says ERCOT’s energy-only market no longer provides enough revenue certainty to finance the dispatchable generation needed to meet future demand, while persistent gaps between forward markets and actual outcomes weaken the market signals used to guide investment decisions.

Dive Insight

ERCOT's large-load queue has grown by more than 200 GW since 2024, driven largely by data centers, manufacturing, cryptocurrency and industrial oil and gas development, but uncertainty remains over how much load can be safely interconnected.

The grid operator said in April that the total 2030 load reported by transmission service providers, based on contracts and offer letters, was 208 GW. ERCOT's adjusted load forecast put it at 138 GW.

Ascend's estimate of 120 GW assumes delays and a 55.4% success rate for proposed loads. The firm says delays in energization and large-load attrition are making it increasingly difficult to forecast how much demand will actually materialize on ERCOT's grid."

Even though that appetite is enormous, if it can't get met, it's not coming online," Brent Nelson, senior managing director of market intelligence at Ascend, told Utility Dive in an interview."

The ability of the grid to add new generation is much, much smaller than the demand of queued large-load facilities," Robert LaFaso, Ascend's director of market intelligence, told Utility Dive.

Both executives identified generation availability as the primary constraint.

Nelson said some transmission challenges can be mitigated by co-locating generation and load. Developers face significant supply chain hurdles in adding those resources, particularly dispatchable plants, according to Ascend.

Ascend cites the limited number of tier-one gas turbine manufacturers as a key factor contributing to project attrition among Texas Energy Fund applicants. The firm also identifies engineering, procurement and construction capacity, high-voltage equipment and permitting as growing bottlenecks to building new generation.

Ascend expects ERCOT's reserve margins will remain healthy through 2026 before tightening as load growth outpaces supply additions. That shift is prompting discussion of potential market reforms, including concepts such as a "bring-your-own-new-generation" requirement for large loads.

Nelson said such a structure could help align new demand with new supply but warned it could undermine the economics of existing merchant generators and increase policy uncertainty for investors.

For storage, the challenge is squarely financial.

"We've seen pullbacks from a lot of the lenders expressing drastic concerns over the past several years, where [storage projects] have not met revenue expectations, and the lending community is starting to question whether or not merchant storage is investable without firmer revenue," LaFaso said.

Lenders increasingly require contracted revenues rather than relying on merchant market returns, he said. Those financing challenges are compounded by ERCOT's energy-only market design, which relies on scarcity pricing to incentivize new generation.

Scarcity revenues alone are unlikely to support investment, particularly as developers face rising costs for natural gas equipment and other infrastructure. The problem, Nelson warned, is that there are only two realistic outcomes under that structure: Either scarcity pricing fails to provide enough revenue to support new entry — leaving the system short of dispatchable capacity — or it succeeds in doing so but creates an affordability crisis by forcing consumers to pay high, volatile prices to the entire supply stack.

The firm also said a changing generation mix could make scarcity revenues more weather- and outage-dependent, adding volatility for generators and complicating financing. It identified September as an emerging risk period due to reduced solar output from earlier sunsets and lower evening wind generation than in August.

Ascend expects wholesale prices to rise in the near term as demand grows before stabilizing over the longer term as additional renewable generation comes online. Natural gas plants are still expected to set prices during evening ramping periods when solar output declines.