

ERCOT Overview

Market Structure and Risk Allocation

ERCOT operates under an energy-only wholesale market with retail competition and unbundled utilities in Texas. Generation is competitive and generators earn revenue through energy market prices. Transmission and distribution infrastructure is owned by regulated Transmission and Distribution Utilities (TDUs), such as Oncor and CenterPoint, whose rates are overseen by the Public Utility Commission of Texas (PUCT). Retail Electric Providers procure power in wholesale markets and sell it to end-use customers.

This structure distributes risk differently than in vertically integrated states. Generation investment risk is borne primarily by private developers and market participants rather than embedded in regulated retail rates. Retail rate exposure depends on procurement arrangements and hedging practices.

For networked infrastructure required to serve large loads, the key risk bearer is the regulated TDU. Transmission and distribution upgrades required to interconnect large customers are identified through formal interconnection studies. Dedicated facilities and many load-triggered upgrades are directly assigned to the connecting customer, reducing the likelihood that customer-specific infrastructure costs are broadly socialized. Financial security requirements and milestone-based construction processes further mitigate stranded asset risk at the infrastructure level.

As a result, the primary risk that data centers pose is to TDUs, within their management of network costs and stranded asset mitigations, and on the ability of retail electric providers to hedge against high prices.

Scale of Growth and Market Trends

Texas has experienced significant projected load growth driven by data centers, electrification, hydrogen fuel production, increased heating and cooling needs due to extreme weather, cryptocurrency mining, and population growth. The Dallas–Fort Worth area in particular has become a major hub for data center development. In 2024, there was 6.5 GW of large load approved to operate in ERCOT.⁷²

Despite this growth, recent state-level analyses do not show a clear correlation between load growth and retail rate increases. For example, the LBNL study examining retail electricity price trends found that Texas experienced substantial load growth while maintaining comparatively modest retail price increases relative to regions such as California and the Northeast. This suggests that historical rapid load growth in Texas has not translated into disproportionate retail rate escalation.

In an interview with Dr. Ning Lin of The University of Texas at Austin, she noted that evidence across markets is mixed, and that electricity rate trends are shaped by multiple overlapping factors, making them difficult to attribute to any single driver. She suggested that some observed rate increases may reflect underlying system needs, such as ongoing investments to maintain and upgrade infrastructure, which could put upward pressure on rates even in the absence of new large loads. In Texas, she noted that recent residential rate increases reflect a combination of drivers—transmission and distribution capital investment, post-Winter Storm Uri reliability spending, storm cost recovery, and natural gas fuel-cost volatility—much of which would have been required to maintain reliability and serve population growth independent of incremental data center load. This underscores the importance of defining the appropriate base case and counterfactual for comparison—distinguishing between investments that would have occurred anyway from those driven by incremental demand. She also emphasized that as new large-load demand materializes, the binding policy question shifts from backward attribution toward forward design, specifically, how to allocate the costs of incremental system investments equitably across customer classes, a question regulators in Texas are now actively addressing.⁷³

⁷² Hodge, T. (2024, October 3). *Data centers and cryptocurrency mining in Texas drive strong power demand growth*. U.S. Energy Information Administration. <https://www.eia.gov/todayinenergy/detail.php?id=63344>

⁷³ Interview with Dr. Ning Lin, University of Texas at Austin, April 2026