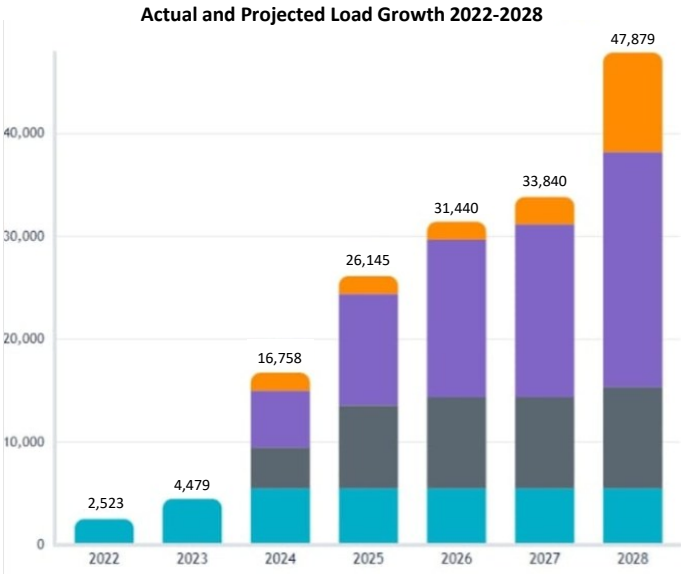
2024 RELIABILITY PERFORMANCE AND REGIONAL RISK ASSESSMENT

Texas Reliability Entity, Inc. (Texas RE) periodically assesses and reports on the reliability and adequacy of the Bulk Power System (BPS) within the Texas Interconnection (also known as the Electric Reliability Council of Texas [ERCOT] Interconnection). The 2024 Reliability Performance and Regional Risk Assessment annually compiles analyses for the previous year and evaluates existing and emerging risks to the interconnection. The report shows that the state of the Texas Interconnection is strong but continued vigilance is required to address reliability and security risks.

ACTIONABLE

Reserve margins show deficiencies due to the integration of large loads, and the size and speed of large load interconnection is creating near-term reliability challenges.



Source: ERCOT

For 2025, "Disorganized Integration of Large Loads" increased from Unlikely/Moderate to Likely/Major; "Extreme Weather & Resource Weatherization" was downgraded from Possible/Major to Unlikely/Major, and "Artificial Intelligence" was added as a new risk area.

The generation necessary to meet the Region's demand continues to evolve toward variable generation resources and energy storage, and away from dispatchable fossil-fueled machines.

Fuel Source	2019 (MW)	2024 (MW)	
Wind	28,373	38,911	↑ 37%
Solar	3,738	27,157	↑ 727%
Storage	363	9,863	↑ 2,717%

The BPS performed well during the most extreme weather events in 2024. Likelihood of a major reliability impact from the failure to winterize resources has been reduced due to aggressive implementation of mitigation measures and positive generation fleet performance.

2025 Risk Changes

Likelihood: Likely // Impact: Major
Disorganized Integration of Large Loads ↑

Likelihood: Unlikely // Impact: Major
Extreme Weather & Resource Availability ↓

NEW FOR 2025
Likelihood: Unlikely // Impact: Moderate
Artificial Intelligence