

Reliability Standards to Reduce the Cost of Wind and Solar Volatility in Texas

The ERCOT market rewards unreliable power producers by paying them the same market price as reliable producers, leading to higher power prices and a chronic reliability deficit.



ERCOT Market Design Equally Values Unreliable and Reliable Energy

The costs of wind and solar generation variability exceed the benefits of low operating costs and free fuel. However, the ERCOT market by design pays units the same market price with no regard to their variability, and it dispatches the units with the lowest operating costs first. This system ensures that wind and solar are paid the same as reliable power plants and are dispatched first, forcing reliable units to ramp up and down frequently and operate more expensively. Ratepayers end up overpaying for wind and solar and paying more for dispatchable power to be available when the wind and sun drop off.

Costs of Variability for Texans

Wind and solar variability is costing Texas ratepayers at least

**2 billion
annually**

primarily through higher wholesale electricity prices and increased procurement of ancillary services.

In 2023, the Texas Legislature mandated a reliability standard for new generators beginning in 2027 (HB 1500 Sec. 23), but the current law will not do anything to alleviate the costs imposed by the more than 90 GW of wind and solar that will be in place at that time.

A reliability standard for ALL generators is needed to ensure the ERCOT market pays generators what they are truly worth and provides the best mix of affordable and reliable energy for Texas ratepayers.

Policy Recommendations

Texas Legislature and the Public Utility Commission must swiftly take the following actions to prevent the continued erosion of the ERCOT market and ensure Texas avoids the spiraling costs of places such as California and Europe that have overinvested in wind and solar and underinvested in reliability.

1. Create a Reliability Standard for All Generators:

A uniform reliability standard for both new and existing generators will ensure a level playing field and deliver greater benefits to ratepayers. Limiting the standard to new generators would have minimal immediate impact and create market disparities.

2. Set the Reliability Standard Based on Existing Thermal Fleet Performance:

The reliability of the ERCOT grid must meet or exceed the historical performance of gas, coal, and nuclear plants. A common standard for all generators will prevent undue financial burdens on ratepayers.

3. Implement Financial Penalties and Incentives for Generators Based on the Reliability Standard:

Generators failing to meet the reliability standard should face reduced market revenue, while those exceeding the standard should receive incentives. This approach would improve reliability and efficiency in the market by correcting for the flaws inherent in the single market clearing price for energy.