

COST OF WIND AND SOLAR VARIABILITY TO TEXAS RATEPAYERS



Many Texans believe that expanding wind and solar energy is the cheapest way to meet rising electricity demand. However, this belief ignores the hidden costs of variability, which impose billions in additional costs on Texas ratepayers. While wind and solar generators have low operating costs, their unpredictable output creates frequent price spikes and forces ERCOT to take expensive actions to maintain grid reliability.

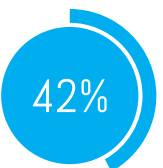
THE UNPREDICTABILITY OF WIND AND SOLAR GENERATION LED TO **\$2.3 BILLION** IN ADDED COSTS FOR ENERGY AND ANCILLARY SERVICES IN 2023.

THE TEXAS PUC ESTIMATED THAT RATEPAYERS PAID **\$788 MILLION** IN ANCILLARY SERVICE PROCURMENTS FOR WIND AND SOLAR VARIABILITY IN 2023.

KEY FINDINGS



Wind and solar drive price volatility: Market analysis shows that replacing renewables with natural gas generation could have reduced price swings, lowering the maximum market price in 2023 from **\$5,000/MWh to less than \$500/MWh**.



ERCOT's balancing costs are rising: The Public Utility Commission (PUC) estimates that **wind and solar were responsible for 42% of ancillary service procurements in 2023**.



Current cost allocation is unfair: Texas law mandates that ancillary service costs be allocated based on "cost causation," yet these **costs are passed to consumers instead of being assigned to the generators** responsible for grid instability.

RELIABILITY = AFFORDABILITY AND VARIABILITY = INCREASED COSTS

In any system, there is a cost for managing variability and uncertainty. Imagine if you had a car that only worked 50% of the time and needed to call a taxi every time the car didn't turn on. Even if that car was only half the cost of a regular car and had free fuel, it would be more expensive than paying for a single car that worked 100% of the time.

POLICY RECOMMENDATIONS

ALLOCATE COSTS OF ANCILLARY AND RELIABILITY SERVICES TO VARIABLE GENERATORS:

Rather than consumers covering all of these costs, shift some of the costs to generators based on their variability. This will incentivize generators to improve their performance and lower costs to ratepayers.

PAY GENERATORS BASED ON PERFORMANCE:

Establish a reliability standard for all generators. Ensure generators that exceed the standard are rewarded fairly while reducing payments to unreliable generators. This will correct the existing market imbalances and ensure the market is providing the most reliable and affordable electricity possible.