HYBRID ENERGY RESOURCES COULD TRANSFORM ERCOT GRID

In Texas and across the United States, developers are seizing the opportunity to bring efficient, dispatchable hybrid energy resources to electricity markets. A hybrid system is a combination of advanced generation technology (such as wind or solar) and energy storage (such as batteries). The most common configuration is solar generation paired with battery storage.

Hybrid Resources Combine Advanced Energy Technologies to:

- Make the Power Grid More Flexible, Efficient, and Resilient
  By combining fuel-free renewable energy with fast-acting battery storage, hybrid systems can respond to market signals with more flexibility than incumbent resources. Hybrid technologies also give grid operators access to a more diverse set of energy resources, which means a more efficient and resilient grid.

- Promote the Integration of Renewable Energy Resources and Improve Their Performance
  Hybrid systems allow renewable resources to deliver clean energy around the clock, enabling solar and wind to deliver power whenever it’s needed.
**Texas Has More Hybrid Projects Than Any Other State**

Hybrid resources are catching on nationally, and Texas is leading the nation, with the most renewables-plus-storage capacity operated and planned. One development recently announced is Enel Green Power’s Lily solar-plus-storage project in Kaufman County, which is expected to generate 367 GWh of electricity each year, avoiding over 242,000 tons of CO₂ emissions annually.

**Rules Need to Catch Up**

While hybrids are coming, market rules are lagging behind, as hybrid resources do not fit cleanly into any existing resource category. Work is underway at ERCOT to integrate these technologies into its wholesale markets. To ensure that customers and the grid capture the full potential of these flexible resources, ERCOT needs to adopt fair market rules that recognize the capabilities of hybrids and allow them to compete on that basis. As a long-time leader in advanced energy thanks to pro-competition policies and a commitment to removing market barriers, Texas can also lead the nation in hybrid resource development.

**Lower Energy Costs for Consumers**

Hybrid systems reduce wholesale market costs, and ultimately customer costs, by increasing competition among energy suppliers, as hybrids combine the most cost-effective sources of generation available with storage technologies whose costs are falling fast.

**About TAEBA**

The Texas Advanced Energy Business Alliance (TAEBA) includes local and national advanced energy companies seeking to make Texas’s energy system more secure, clean, reliable and affordable. TAEBA’s mission is to raise awareness among policymakers and the general public about the opportunity offered by all forms of advanced energy for cost savings, electric system reliability and resiliency, and economic growth in the state of Texas. Learn more at texasadvancedenergy.org and follow our latest news @TXAdvEnergyBiz.