CASE STUDY

FFR UPDATES ENABLE BESS SITES TO **CAPITALIZE ON ANCILLARY SERVICES IN ERCOT**

Customer Name:
A Major Energy Storage Developer in Texas

Location: **Texas**

MWh: **385**

# of Sites: **15**

Situation: **Updating to industry FFRA standards**

Software and Controls:
FlexGen HybridOS

THE CHALLENGE

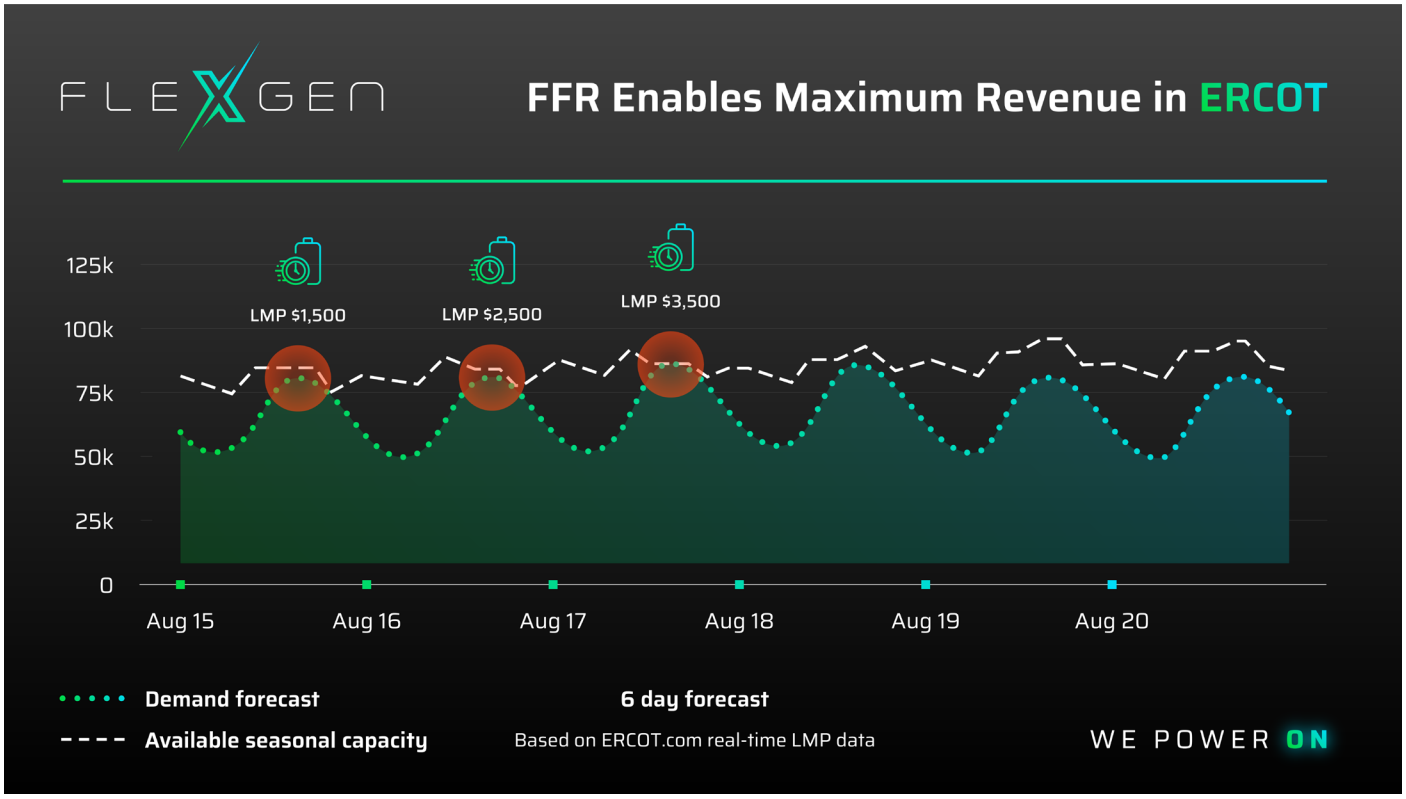
Following the winter power crisis of February 2021, ERCOT recognized the need to update its ancillary services market to prepare for periods of increased demand while supporting renewable energy integration.

The Fast Frequency Response Advancement (FFRA) project was introduced to enhance grid stability and resilience. FFRA includes the implementation of primary frequency response, fast frequency regulation service, and fast frequency response markets. These markets require quick-responding energy resources, making energy storage systems with advanced operating systems and digital controls crucial for participation. FlexGen was asked by a customer in Texas to update their existing HybridOS energy management systems to meet the latest FFR-capable software and control response standards.

THE SOLUTION

FlexGen worked closely with ERCOT to prove not just the feasibility, but also the functionality of the new FFR standards. Our **HybridOS energy management system was custom-tailored** with upgrades that would perform FFR significantly faster than anticipated.

Each updated HybridOS system was preconfigured in FlexGen's state of the art innovation lab and then installed on the customer sites. The lab work, combined with active on-site and remote troubleshooting provided maximum uptime availability for the customer.



THE IMPACT

Lightning-fast BESS reaction speeds allow the customer to capitalize on very lucrative energy prices in the ancillary services market, especially during record high temperatures in ERCOT. Under FFRA, the fast frequency response market necessitates energy storage resources that can respond within 15 cycles of a request for power.

This rapid response time is critical for maintaining grid stability during sudden changes in supply and demand. Battery storage systems equipped with updated, intelligent energy management systems like HybridOS, can meet these strict requirements, ensuring seamless participation in the fast frequency response market.

CAN RESPOND WITHIN 15 CYCLES

FLEXGEN