



DRIVING THE ENERGY TRANSITION WATTBRIDGE PORTFOLIO IS A CARBON-NEGATIVE ADDITION TO ERCOT

Located in the load-heavy Houston zone in ERCOT, the WattBridge portfolio—a 2.1 GW fast-start peaking power fleet of commissioned or under-construction assets—delivers a critical solution to bridge the energy divide. Its natural-gas-powered units provide dispatch flexibility and fast-start capability to help solve grid intermittency issues, support renewable expansion, retire inefficient units, and reduce carbon emissions.

According to a recent report by ICF, the portfolio has a negative carbon impact in ERCOT. The analysis concluded that by displacing inefficient gas steam and coal units, the portfolio has the potential to reduce carbon dioxide (CO₂) emissions by hundreds of kilotons a year. In addition, as high-carbon assets in the system retire, it can bolster grid reliability and save billions of dollars compared to the next best alternative.

As one of the most prolific developers, owners, and operators of aeroderivative plants in the world, WattBridge delivers large-scale power generation in support of the energy transition. Its peaking power plants start in less than 10 minutes—with a 1-hour minimum runtime and downtime. The plants leverage highly reliable LM6000 gas-turbine engines for quick-start, reduced-emission energy, even in extreme weather conditions.

WATTBRIDGE CO2 REDUCTIONS

268 kT/year

by displacing oil, gas steam, and coal generation in ERCOT 177 kT/year

by avoiding minimum-load operation and renewable curtailment

265 kT/year

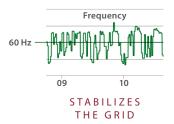
by replacing online, ramping gas units for ancillary services

ABOUT WATTBRIDGE

A vertically integrated structure between WattBridge and its parent company PROENERGY results in an unrivaled, 15-month construction average from financial close to commercial operations. The company has a long-term plan to build 4 GW of new peaking-generation and battery-storage assets in the ERCOT market by 2025. To date, it is halfway to its goal, with 2.1 GW operating or under construction in the Greater Houston area, and a further 1.9 GW in advanced development.









DISPLACES INEFFICIENT GENERATION

With the ability to reach full load in under 10 minutes, the WattBridge portfolio can displace other sources of generation—including oil, gas steam, and coal—for dramatic decarbonization in the Texas grid.

In general, the fleet emits approximately 20% less carbon than gas steam units and 50% less than coal (on a variable basis). Thus, it reduces total annual carbon emissions in ERCOT by ~268 kT/year, equivalent to 30 million gallons of gasoline annually.

LOWERS COST OF MEETING ERCOT DEMAND

ERCOT seeks to improve system reliability while facing the growth of demand at 2% a year and the retirement of older high-carbon-emitting assets. WattBridge replaces these assets while reducing emissions.

The analysis considered replacing 2.4 GW of coal—tantamount to the Martin Lake coal plant in ERCOT—with three options: renewables only, renewables plus a 2-hour battery system, and renewables plus the 2.1-GW WattBridge portfolio. The option including WattBridge offers the most affordable solution saving at least \$3.2 billion.

MEETS RAMP NEEDS

As renewable penetration increases, system ramp needs will also increase, especially at shorter time intervals. WattBridge meets these increases with peaking power without minimum load at mid-day, which stabilizes the grid and meets ramp demand more efficiently.

A simulation of 2030 conditions with and without the WattBridge portfolio found that WattBridge generation could meet ramping needs and avoid approximately 2.6 TWh of minimum-load operation, which results in a CO₂ reduction of 153 kT/yr. Furthermore, avoiding renewable curtailment during periods of low net load could save an additional 24 kT/yr, for a total savings of 177 kT/yr.

FILLS ANCILLARY SERVICES GAP

A more direct way to avoid minimum-load operation is to deploy offline units with quick-start capabilities, rather than online baseloaded units serving non-spin or ERCOT Contingency Reserve Service (ECRS). In 2027, the projected total of non-spin and ECRS will be 6.0 GW, and the available peaking capacity for offline non-spin—not including the WattBridge portfolio—will total 3.2 GW, which will leave a gap of 2.8 GW.

The WattBridge portfolio fills this gap while eliminating 4.5 TBtu of gas burn from combined-cycle gas-turbine units unnecessarily operating at minimum load and, in turn, reduces CO₂ emissions by 265 kT/yr.

