



The PowerFLX concept—the first standardized, modular LM6000 power plant design—enabled PROENERGY to deliver HO Clarke Generating Station approximately 2 months earlier than anticipated and run for nearly 6 days during a historic severe weather event.

EPC SERVICES

LM6000PC

Houston, Texas, U.S.



STANDARDIZATION CUTS EPC TIME BY 50%, READIES WATTBRIDGE TO SUPPORT ERCOT DURING URI

Independent power producer (IPP) WattBridge developed its first facility, HO Clarke Generating Station, to respond to peak demand periods in the Electric Reliability Council of Texas (ERCOT) grid. Based on the exclusive PowerFLX LM6000 concept, the plant features eight LM6000PC engines to generate 384 MW.

CHALLENGE

In 2018, ERCOT warned operators that the reserve margin fell below its target against a backdrop of legacy plant retirements as well as wind and solar developments. To address the ongoing lack of power resources, WattBridge developed HO Clarke Generating Station with construction kicking off in Houston, Texas, at the onset of COVID-19 pandemic and its associated supply chain disruptions.

SOLUTION

PROENERGY fully designed, engineered, and executed a standardized plant in two phases: Phase I with six units and Phase II with two units.

Starting with Phase I of the project, the engineers leveraged the PowerFLX concept to eliminate variability regarding equipment designs, power distribution centers, and spacing to route piping and cabling. They quickly completed drawings, wrote specifications, and ordered equipment. Obtaining the required permits took less than 1 week.

Concurrent with final engineering, the construction team prefabricated components and laid out the site. Completing foundations took 9 weeks and setting major equipment took 17 weeks, or 31 and 43 weeks faster than EPC averages, respectively.

PROENERGY serviced Phase I engines at its Level-IV depot on its Sedalia, Missouri, campus to assure reliable performance.

Within 38 weeks, PROENERGY had commissioned the first six units, which coincided with the coming of Winter Storm Uri, a severe arctic front.

The new plant operated for 141 hours without interruption from the time the ERCOT market reflected an extreme generation need until the time it revoked its emergency order.

STREAMLINED

1 SOURCE

from inception to commercial operation

INCLUSIVE

100% TURNKEY

solution complete with balance of plant

EXPEDITED

50% REDUCTION

in 24-month EPC timeframe

VALUE

PROENERGY provided WattBridge a single source point—from inception through commercial operation—to mitigate logistical complexities and complete the Phase I build before the unprecedented storm in just 12 months. By comparison, a typical EPC project takes approximately 24 months.

The turnkey power-generation solution fulfilled all requirements of the EPC project—including everything from the engines, to the packages, to the balance-of-plant systems—for performance reliability.

The accelerated delivery reduced typical EPC timeframes by approximately 50%, which enabled the plant to provide critical power to 200,000 homes despite ERCOT losing nearly half its capacity.