

Power Boost For FleXtra

GE's Distributed Power announced it has worked with pilot customer Stadtwerke Rosenheim to develop a modification and upgrade for its Jenbacher J920 FleXtra gas engine that increases the power output of the engine by nearly 10%—to 10.38 MW for the 50 hz unit.

The power boost of more than 0.8 MW electrical output has increased the number of European homes that can be served with power from 18 500 homes to more than 20 000, and this additional output comes from the existing engine, which has been upgraded. The modified and upgraded pilot engine already contributed reliably to the power and heat supply of the city of Rosenheim last winter.

The modification and upgrade is part of the planned evolution of the Jenbacher J920 FleXtra gas engine. Two-stage turbo charging with higher boost pressure is the enabler for such upgrades and increasing power output. The Jenbacher J920 FleXtra gas engine is now a 10.38 MW engine manufactured in the company's Jenbach, Austria, facility. The new 10.38 MW offering is for 50 hz applications, while the 9.34 MW offering is for 60 hz applications.

“A macrotrend in power generation is the growing need for grid stability, creating demand for more flexible power using multiple smaller power generation units as an addition to renewable energy sources such as wind and solar,” said Dr. Götz Brühl, CEO of Stadtwerke Rosenheim. “With the modification and upgrade, we can produce more power and heat for our customers from our existing J920 FleXtra gas engine, providing an even more cost-effective, value-added solution in the same footprint.”

With the highly efficient 10-MW gas engine platform, a European facility could reduce carbon dioxide (CO²) emissions by as much as 78 000 metric tons for a 100 MW power plant over the course of a year, which is equivalent to the CO² emissions from more than 41 000 cars on European roads.

The natural gas-fired Jenbacher J920 FleXtra combined heat and power system (CHP) provides electricity and thermal power (hot water) for local residents and industrial customers with a lower carbon footprint compared to conventional power plants, supporting Germany's effort to reduce greenhouse emissions by 40% by 2020. Also, the Jenbacher J920 FleXtra gas engine's short startup time increases Stadtwerke Rosenheim's operational flexibility to overcome the challenges of intermittency associated with adding more wind, solar and other renewable energy supplies.

“European customers are searching for cost-effective solutions to cover their energy demands, and regulations require high total energy efficiency and low emissions. Using a Jenbacher J920 FleXtra gas engine for CHP applications and reaching a total energy efficiency of 90% and more is a very attractive option for municipality customers, as it can provide an environment-friendly, reliable and economical solution to meeting the region's energy demand,” said Niall Prendiville,

Diesel & Gas Turbine Worldwide

In-depth news on engine room products and technologies used in power generation, oil and gas, rail traction and marine propulsion applications.

<http://diesलगasturbine.com>

general manager, J920 FleXtra product line for GE's Distributed Power. "GE and Stadtwerke Rosenheim share more than a decade of gas engine innovation, which made the company an excellent associate to work with to develop this modification and upgrade that will help it provide more flexible power and heat to its business and residential customers."