

RWE's 300 MW Biblis Grid Stability Power Plant Powered by GE's Aeroderivative Technology Improves Reliability of German Electricity Supply

- RWE's Biblis power plant expected to deliver up to 300 megawatts (MW) to the grid when required
- The plant is powered by 11 units of GE's LM2500XPRESS* technology and includes GE's gas-insulated-substation (GIS) equipment to improve electricity transmission over long distances
- First time a transmission system operator in Germany will benefit from a grid stability power plant
- Fast and flexible power supports Germany's energy policy objectives targeting 80% of power generation from renewable sources and full phasing out coal by 2030

Biblis, Germany – May 9, 2023 – GE (NYSE: GE) and RWE, one of the international drivers of the energy transition, today officially celebrated the inauguration of the Biblis power plant, which started operation for Germany's transmission system operators in early March. The plant uses 11 units of GE's flexible LM2500XPRESS aeroderivative gas turbine technology and GE's advanced gas-insulated-substation (GIS) equipment. The 300 megawatt (MW) plant is a so-called special grid-technical equipment located in Biblis, a municipality in the Southern Hesse region of Germany, and will only operate when needed – aiming to deliver power in under 30 minutes upon request from a transmission system operator - to help ensure continual grid stability.

Grid flexibility is important to the German government which is committed to achieving 80% of renewable energy generation for the country's electricity mix before the end of the decade after exiting nuclear and ideally phasing out coal power generation. Dispatchable gas power – gradually decarbonized through hydrogen or carbon capture solutions – shall cover the remaining 20% of power generation.



"With the plant in Biblis, we can feed in electricity quickly and flexibly at the request of the transmission grid operators and thus help to stabilize the grid in southern Hesse. With this project we're adopting GE's flexible and modularly designed aeroderivative gas technology and advanced protection, control, monitoring, and diagnostic technologies and software to monitor the safe condition of the plant", said Roger Miesen, CEO of RWE Generation.

GE's turbines are connected to the grid via a 380 kV high-voltage substation at the Biblis site. The T168 gas-insulated-substation (GIS), the first outdoor GIS in Germany, can help address the challenges of networks up to 550 kV for all applications including power generation, transmission, and heavy industry.

"Countries like Germany are committed to working on grid digitization and modernization to make grids smarter and well positioned to meet growing demands by adding advanced distribution networks, hybrid systems, energy storage and grid stability power plants," said Joseph Anis, President & CEO, Europe, Middle East & Africa, GE Gas Power. "GE's aeroderivative fleet and grid solutions will provide RWE with a reliable energy supply, support Germany's grid reserve, and help manage the complex grid requirements of tomorrow's renewables-heavy grid."

GE's LM2500XPRESS breakthrough technology

GE's LM2500XPRESS power plant is built on GE's proven LM2500* aeroderivative gas turbine technology with an installed base of more than 1,500 units and more than 120 million operating hours. GE's LM2500XPRESS improves on this legacy with a focus on speed and simplicity.

For plant operators who need power in just weeks, the LM2500XPRESS can be installed quickly with the option of getting to full power in five minutes. Its plug and play nature provides flexible power where it is needed quickly and efficiently. It's available in both simple and combined cycle configurations, for 50 and 60 Hz utility providers. In simple cycle configuration, it delivers 34 MW and achieves up to 39.5 percent of efficiency. In a combined cycle configuration, it delivers up to 47 MW with up to 54.4 percent of efficiency.



The compact LM2500XPRESS units for this project were manufactured at GE Gas Power's Manufacturing Excellence Center in Veresegyhaz, Hungary.

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