



GE Introduces Its New, Larger J920 FleXtra Gas Engine for North America

- *10-Megawatt Class, 60-Hz Gas Engine Offers Best-in-Class Electrical Efficiency of 49 Percent*
- *GE's Fast-Reacting Jenbacher J920 FleXtra Generator Sets Provide Significant Fuel Savings*
- *New Engine Helps Enable the Integration of Renewables onto the Grid*
- *GE Announces MOU with Sky Global Partners, LLC for First 60-Hz, J920 FleXtra Gas Engines*

DENVER—June 16, 2014—GE Power & Water's Distributed Power business (NYSE: GE) today announced the launch of its new, 10-megawatt (MW) class [Jenbacher J920 FleXtra gas engine](#) for the 60-Hz North American segment, offering one of the highest electrical efficiency commercially available today. Featuring a five-minute start-up time, the J920 FleXtra is scalable for any plant size and provides enough energy to power more than 6,000 average U.S. homes. GE made the announcement at the American Public Power Association's 2014 National Conference & Public Power Expo being held in Denver this week.

GE also announced a memorandum of understanding (MOU) with independent power producer Sky Global Partners, LLC of Houston, to support the development of the first North American power project featuring GE's Jenbacher J920 FleXtra gas engine technology. Under the preliminary power purchase agreement, GE will supply Sky Global with six of its natural gas-fueled, J920 FleXtra gas engines.

"Our Jenbacher J920 FleXtra gas engines offer best-in-class electrical efficiency of 49 percent for 60 Hz. That adds up to big savings in fuel over the life cycle of any plant. For example, over 15 years, a U.S. facility could realize fuel savings of as much as \$15 million for a 100-MW J920 FleXtra power plant with very high simple-cycle efficiency and great flexibility," said Lorraine Bolsinger, president and CEO for GE's Distributed Power. "Bringing our latest large gas engine technology to the 60-Hz segment, allows us to meet the growing needs of our customers worldwide with a flexible, efficient and quick-response solution."

GE's J920 FleXtra gas engine provides a capacity of 8.6 MW in the 60-Hz segment, with total efficiency of more than 90 percent for combined heat and power applications. This is attained due to advanced technological features such as two-stage turbocharging. This feature is what allows the J920 FleXtra to attain up to 2 percentage points better electrical efficiency when compared to gas engines that only offer single-stage turbocharging, and it offers faster response to peaks in demand with excellent load-following capabilities.

Rapid start/stop cycles and operating flexibility, which can be gained by running multiple units in parallel, make J920 FleXtra gas engines the ideal solution for power generation and district heating as well as decentralized, independent power supply in remote, hot or high-altitude regions. They also are ideal for use in combined heat and power applications and for the stabilization of power grids. In addition, the J920 FleXtra helps enable the integration of renewables onto the grid and is well suited for regions with water constraints due to its lower water consumption.

“Globally, the installed capacity of non-dispatchable resources such as wind and solar has doubled since 2010 and is expected to increase further in the coming decade¹. While wind and solar have clear environmental benefits, they must be supported by complementary generation to maintain a stable grid,” added Bolsinger. “Flexible resources like the J920 FleXtra can be activated during periods of low renewable power supply or during tariff spikes. Conversely, the J920 FleXtra can be quickly curtailed during spells of high feed in of renewable energy or low energy prices.”

Due to the high levels of volatility in modern dispatch profiles, gas engines face additional challenges in regards to transient performance and grid code compliance. Peak demand and ancillary services require power plants with fast-load tracking capabilities without any trade-offs in plant efficiency or start-up reliability. The J920 FleXtra gas engine uses technology specifically designed to fulfill these demanding requirements. As a result, it is able to provide valuable grid services such as load following, automatic generation control and supplemental reserve without impacting maintenance schedules or costs.

As an [ecomagination](#) qualified product within GE’s gas engines platform, the J920 FleXtra is among the world’s most flexible solutions for power generation. Ecomagination is GE’s commitment to build innovative answers to today’s environmental challenges while driving economic growth. The process to obtain ecomagination qualification requires rigorous efforts to drive greater product efficiency and improve environmental performance for the customer while using fewer resources.

Under this criteria, the J920 FleXtra for combined heat and power has extensive operational and environmental benefits. When compared with other gas engines in the same output range, GE’s J920 FleXtra can prevent the equivalent of about 1,500 tons of carbon dioxide emissions annually, and fuel savings of more than 6.4 million kilowatt hours of natural gas can be achieved per year. The J920 FleXtra is designed to increase efficiency while satisfying and exceeding environmental standards.

GE celebrated the official startup of the 50-Hz version of the [J920 FleXtra in April 2013](#) along with a large-scale pilot program at the Stadtwerke Rosenheim municipal cogeneration plant in the city of Rosenheim, Germany. Gas engines form a critical piece of the municipality’s energy strategy. Given the fast-growing presence of renewable energy sources, it became necessary to establish a more flexible energy supply infrastructure. Because the J920 FleXtra can provide the same flexibility as smaller gas engines at a much higher electrical efficiency, it is always the first engine to dispatch for peaking power in Rosenheim.

[In September 2013](#), GE announced that E.ON Hanse Wärme GmbH is planning to build northern Germany’s largest gas engine combined heat and power plant, which will include the 50-Hz J920 FleXtra. A wholly owned subsidiary of E.ON Hanse AG, the energy company is one of the largest regional heating providers in northern Germany. Construction of the new CHP plant began in March 2014. E.ON Hanse Wärme has invested approximately 6.8 million euro in the facility, which will be able to provide eastern Hamburg with enough power to support more than 21,500 households.

Through this innovative gas engine, GE is set to continue its successful technological run, which is based on more than 50 years of experience in the design and manufacture of power generation gas engines in tandem with systematic innovation. The J920 FleXtra employs an innovative three-module concept based on proven core elements of the Jenbacher engine technology, which results in a top-

¹ Source: IEA World Energy Outlook, 2013, <http://www.worldenergyoutlook.org/>

quality, standardized generator set comprised of the engine itself, a generator and an auxiliary module produced at GE's Jenbacher plant.

[In February 2014](#), GE Power & Water launched its Distributed Power business, which is a leading provider of power equipment, engines and services, focused on power generation at or near the point of use. Distributed Power's product portfolio includes GE's aeroderivative gas turbines and Jenbacher and Waukesha gas engines, which generate 100 kilowatts to 100 MW of power for numerous industries globally. Headquartered in Cincinnati, Ohio, Distributed Power employs about 5,000 people around the world.

About Sky Global Partners, LLC

Sky Global Partners, LLC was founded in early 2007 by a group of individuals with over 4,000 MW of completed independent power development experience. The members of the management team have built and operated power plants and other energy supply sources, managed all aspects of electric generation development and presided over multibillion-dollar energy commodities trading and marketing businesses.

About GE

GE (NYSE: GE) works on things that matter. The best people and the best technologies taking on the toughest challenges. Finding solutions in energy, health and home, transportation and finance. Building, powering, moving and curing the world. Not just imagining. Doing. GE works. For more information, visit the company's website at www.ge.com.

About GE Power & Water

GE Power & Water provides customers with a broad array of power generation, energy delivery and water process technologies to solve their challenges locally. Power & Water works in all areas of the energy industry including renewable resources such as wind and solar, biogas and alternative fuels; and coal, oil, natural gas and nuclear energy. The business also develops advanced technologies to help solve the world's most complex challenges related to water availability and quality. Power & Water's six business units include Distributed Power, Nuclear Energy, Power Generation Products, Power Generation Services, Renewable Energy and Water & Process Technologies. Headquartered in Schenectady, N.Y., Power & Water is GE's largest industrial business.

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