



E.ON Selects GE's J920 FleXtra Gas Engine for Largest Combined Heat and Power Plant in Northern Germany

- *CHP Plant to Generate Enough Power and Heat for 21,500 Households*
- *GE's J920 FleXtra Offers Highest Electrical Efficiency in 10-Megawatt Engine Class*
- *Construction Planned to Begin in March 2014*

HAMBURG, GERMANY—September 19, 2013—GE (NYSE: GE) today announced that E.ON Hanse Wärme GmbH is planning to build northern Germany's largest gas engine combined heat and power (CHP) plant, which will use GE's most powerful Jenbacher gas engine, the new 10-megawatt (MW) [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 is to begin 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.

The project, which is part of an energy cooperation project between [E.ON Hanse](#) and the city of Hamburg, is the fourth CHP project to supply Hamburg households with power, following the development of CHP plants in Hohenhorst, Wilhelmsburg and Lohbrügge. With an output of more than 9.5 MW, the new CHP plant will be much larger than the other facilities, which each generate up to 2 MW.

As in the three other facilities, E.ON Hanse Wärme is once again using GE Power & Water's [Jenbacher gas engines](#). The heart of the new CHP plant is the J920 FleXtra. GE's J920 FleXtra commands the highest electrical efficiency in the 10-MW engine class and is designed to achieve an industry-leading electrical efficiency of 48.7 percent and about 90 percent efficiency in cogeneration mode. As a result, the J920 FleXtra offers a flexible, innovative energy solution providing greater efficiency levels while improving environmental performance.

"Combined heat and power plants play a central role in the energy transition by generating energy in an efficient and decentralized manner," said Udo Bottländer, director of human resources for E.ON Hanse AG. "With the development of CHP and the implementation of such innovative projects, the E.ON Hanse group is putting an important component of (Germany's) energy transition into practice in the Hamburg metropolitan region."

The Hamburg project is the second J920 engine installation in Germany. [In April 2013](#), GE and Bavarian officials gathered in the city of Rosenheim to celebrate the official startup of the Stadtwerke Rosenheim municipal cogeneration facility expansion project, which also features a J920 FleXtra unit.

"E.ON Hanse Wärme and GE have been bound by a close and innovative collaboration for approximately 15 years, primarily through our German subsidiary that has been reliably and skillfully handling projects with our customers and offering excellent local services," said Karl Wetzlmayer,

general manager—gas engines for GE Power & Water. “We are pleased E.ON Hanse has chosen our flexible J920 technology for the largest CHP plant in northern Germany using a gas engine.”

The J920 FleXtra can generate more than 76 million kilowatt hours of electricity per year. This is enough to supply enough power for more than 21,500 households or more than 95 million loads of laundry at 60°C. At the same time, the CHP system can generate more than 80 million kilowatt hours of heat, which will be fed into the existing district heating network to serve households in Hamburg.

The simultaneous generation of electricity and heat means that CHP plants are particularly efficient and resource efficient. Furthermore, these facilities are an important component of the Germany’s national energy transition plan that is focusing on energy efficiency because they provide energy where it is needed.

“Our CHP technology offers both high levels of efficiency and high levels of reliability. It provides safe decentralized supply and optimizes the CO₂ balance. In conjunction with the new innovative operating concept as used here in Stapelfeld, this can be improved even further,” added E.ON Hanse’s Bottländer.

The parallel generation of electricity and heat means that CHP plants double the use of the fuel consumed in the engine. In comparison to the separate generation of electricity in a coal-fired plant and heat in a gas-fired boiler, up to 35 percent of the raw materials consumed and almost 60 percent of the CO₂ can be saved in a CHP system

Through the construction of the CHP plant and further measures, the E.ON Hanse group is supporting the city of Hamburg through an ongoing energy revolution. In the “Energy Concept for Hamburg” that was presented in late 2011—which includes the city’s participation in energy networks—E.ON Hanse pledged to further develop the generation of energy through cogeneration. By 2021, cogeneration in Hamburg is to be nearly doubled to 17,000 kilowatts, up from the current 9,000 kilowatts. Investments totaling 25 million euro are planned for this purpose.

GE’s J920 FleXtra is part of GE’s [ecomagination](#) portfolio. ecomagination is GE’s commitment to provide innovative solutions that maximize resources, drive efficiencies and make the world work better. To qualify for the portfolio, products and services must demonstrate both improved economic value and environmental performance.

GE’s Jenbacher engine technology also is part of the company’s portfolio of innovative distributed power solutions, designed to give businesses and communities around the world the ability to generate more reliable and efficient power using a variety of fuels in diverse locations, on or off the grid. GE’s distributed power portfolio also includes [GE’s aeroderivative gas turbines](#), [Waukesha gas engines](#) and [Clean Cycle waste heat recovery solutions](#).

About E.ON Hanse Wärme GmbH

E.ON Hanse Wärme GmbH, a wholly owned subsidiary of E.ON Hanse AG, is one of the largest regional heating providers in northern Germany. The district and distance heating networks of the company total more than 800 kilometers in length. Using heat connection networks, numerous CHP and heating plants, E.ON Hanse Wärme reliably supplies residential buildings, public facilities and commercial operations in northern Germany, 24 hours per day, 365 days per year.

With around 200 CHP modules in Schleswig-Holstein, Hamburg, Mecklenburg-Vorpommern and northern Lower Saxony, E.ON Hanse Wärme is the largest operation of this environmentally friendly technology in the region. In addition, the company offers tailored energy concepts and ultra-modern facilities for optimized energy use, which reduce emissions and helps the environment.

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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