

PRESS RELEASE

New Cologne-Merheim Gas-Fired Combined Heat and Power Plant for RheinEnergie AG Proves Successful in Commercial Operation

- Advanced Combined Heat and Power plant operating with three Jenbacher J920 FleXtra gas engines
- New plant operations will reduce 110 million pounds (50,000 metric tons) of
 CO₂ each year as compared to previous operations

COLOGNE (Germany), JENBACH (Austria), November 18, 2020 – The new Combined Heat and Power (CHP) facility at the Cologne-Merheim thermal power plant operated by RheinEnergie AG has been running successfully as part of regular operations since April 2020. The new unit – an advanced natural gas-fired CHP plant with three INNIO* Jenbacher* gas engines – replaces the older combined cycle gas turbine power plant operated at the same site as well as an outdated boiler for district heating. The power plant supplies district heating to Cologne's Merheim and Neubrück areas in addition to two large hospitals in Merheim.

"As a company, we are committed to making a significant contribution toward reducing CO₂ emissions by 50% in Cologne by 2030 compared to 1990 emissions," said Dr. Karsten Klemp, power plant manager at RheinEnergie. "The new CHP plant in the Merheim area of Cologne is an example of this undertaking. This is a state-of-the-art facility and forms the backbone of power and heat supply in the east of Cologne. Because of the high degree of flexibility offered by the plant, it ideally complements energy generation from renewables and is an important element for ensuring security of supply."

Central to the new CHP plant are three natural gas-powered Jenbacher J920 FleXtra gas engines, each with an electrical and thermal output of 10 megawatts. The CHP modules, which weigh approximately 430,000 pounds (195 metric tons), can either be operated in combination or separately from one another. Like the



previous plant, they generate electricity and heat simultaneously; however, these units are much more efficient and can match their output exactly to the current demand for energy.

Because of the combined generation of power and heat, the unit's fuel efficiency is 90% – a level of efficiency that far exceeds that of conventional plants which achieve around 40%. This not only affects fuel consumption, it also has a positive impact on emissions. Compared with the previous thermal power plant, the new unit reduces approximately 110 million pounds (50,000 metric tons) of greenhouse gas every year. The project represents an investment of 30 million euros. The trio of Jenbacher gas engines was installed in record time, taking less than eight months from the delivery of the first modules to commissioning.

"We are delighted that, our flexible, highly efficient, and advanced gas engines have been able to contribute to the operational center of RheinEnergie's new CHP plant," commented Carlos Lange, president and CEO of INNIO. "The new plant not only plays a significant role in securing the energy supply, it also represents another milestone on the path to a climate-neutral future for the energy system in Germany."

* Indicates a trademark

About INNIO

INNIO is a leading solutions provider of gas engines, power equipment, a digital platform, and related services for power generation and gas compression at or near the point of use. With our Jenbacher and Waukesha product brands, INNIO pushes beyond the possible and looks boldly toward tomorrow. Our diverse portfolio of reliable, economical, and sustainable industrial gas engines generates 200 kW to 10 MW of power for numerous industries globally. We can provide life-cycle support to the more than 52,000 delivered gas engines worldwide. And, backed by our service network in more than 100 countries, INNIO connects with you locally for rapid response to your service needs. Headquartered in Jenbach, Austria, the business



also has primary operations in Welland, Ontario, Canada, and Waukesha, Wisconsin, US. For more information, visit the company's website at www.innio.com. Follow INNIO on Twitter and LinkedIn.

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