

World's Best Power Plants

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24-CYLINDER ENGINE MAKES COMMERCIAL DEBUT

GE JENBACHER

In September 2008, GE Energy's Jenbacher J624, the world's first 24-cylinder gas engine, made its commercial debut in a new cogeneration plant installed at one of the Netherlands' largest commercial tomato greenhouse operations.

Two of GE's 4 MW, natural gas-fueled J624 GS engines are powering the cogeneration plant at Royal Pride Holland's sprawling greenhouse facility in Middenmeer, 50 km north of Amsterdam, Netherlands. The Jenbacher units were installed as part of a pilot project to demonstrate the engine's commercial viability for the global horticultural industry.

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With a total efficiency level of 95%, GE's 8 MW Jenbacher cogeneration plant offers Royal Pride Holland's greenhouse an economical supply of on-site electrical and thermal power to support its operations. In addition to supporting the greenhouse's operations, surplus electricity

from the cogeneration plant is being delivered to the local grid.

The cogeneration plant is also equipped with GE's Jenbacher cogeneration-CO₂ fertilization process that treats the engines' CO₂-rich exhaust, allowing the gas to be recycled in the greenhouse as a special fertilizer to help boost crop production, instead of venting the gas into the atmosphere.

The Royal Pride Holland plant is supported by a full-service maintenance agreement that will cover the units for up to 60 000 operating hours or 15 years of service. Royal Pride Holland previously had installed nine of GE's 3 MW, JMS 620 units at the site.

GE Energy's portfolio of Jenbacher cogeneration applications — including for greenhouses — recently received ecomagination certification under GE's corporate initiative to offer customers advanced technologies to help meet their pressing environmental challenges. CHP plants are inherently more energy efficient because they consume less fossil fuel than separate power and heating systems, thus supporting the Netherlands' emissions reduction efforts. 