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POWER, HEAT, AND COOLING PROJECT

supports the energy transition in China

Background

In Changsha, the capital of Central China's Hunan province, a world-class resort and conference center aims to become a global tourist destination that improves the urban functions and overall quality of Changsha while also promoting the region's industries. With this goal in mind, Changsha Xiangjiang Happy City needed an energy solution that could live up to the promise of green new city ideals.

A trigeneration solution

Located in the center's Dawang Mountain Tourist Resort, the new Changsha Xiangjiang Happy City Distributed Energy project is supporting the region's energy transition from coal-burning plants to more environmentally friendly solutions. The combined cooling, heat and power (CCHP) plant is centered on two of INNIO's Jenbacher J320 1 MW gensets operating on pipeline gas, working together with other energy supply and storage equipment on the site.

The trigeneration plant supplies electricity, heat, and cooling to the resort's Snow Park, Ocean Park, 4 and 5-star hotels, and tourism service center with a total construction area of about 277,000 square meters.

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Results

The new distributed energy plant will provide the same power output as 1,290 tons of standard coal, but with significantly lower emissions. In fact, it is expected to prevent 5,085 tons of CO_2, 29 tons of sulfur dioxide, and 14 tons of nitrogen oxides from entering the atmosphere each year. What's more, the resort's energy consumption is predicted to decrease by 27.2%.

Customer benefits

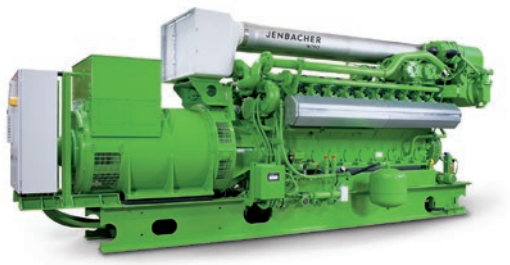
- 2 MW of reliable power along with heat and cooling for the resort
- total efficiency of over 80% operating on pipeline gas
- helping to reduce greenhouse gases in the region with much lower emissions than those of a similar capacity coal plant

» This project is another example of how we are working to live up to the promise of green new city ideals at Changsha Xiangjiang Happy City. Our plant's Jenbacher gensets are helping provide highly efficient electricity, heat, and cooling to our tourist facilities. And, that power is generated with a lot fewer greenhouse gases than an equivalent capacity coal-burning plant would produce.«

Xuedong Luo, general manager,
Changsha ENN Xiangjiang New Energy Development Co. LTD

Key technical data

Installed units	2 x J320
Electrical output	2 MW
Total efficiency	>80%
Energy source	Pipeline gas
Year of commissioning	2019



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INNIO is a leading energy solution and service provider that empowers industries and communities to make sustainable energy work today. With our product brands Jenbacher and Waukesha and our digital platform myPlant, INNIO offers innovative solutions for the power generation and compression segments that help industries and communities generate and manage energy sustainably while navigating the fast-changing landscape of traditional and green energy sources. We are individual in scope, but global in scale. With our flexible, scalable, and resilient energy solutions and services, we are enabling our customers to manage the energy transition along the energy value chain wherever they are in their transition journey.

INNIO is headquartered in Jenbach (Austria), with other primary operations in Waukesha (Wisconsin, U.S.) and Welland (Ontario, Canada). A team of more than 3,500 experts provides life-cycle support to the more than 54,000 delivered engines globally through a service network in more than 80 countries.

INNIO's ESG Risk Rating places it number one of more than 500 worldwide companies in the machinery industry assessed by Sustainalytics.

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