

GE Awarded 9HA Gas Turbine Order to Deliver Approximately 2 Gigawatts of Electricity in Guangdong, China, Supporting Greater Bay Area Energy Transition

- *In an order booked in the fourth quarter of 2021, GE will provide three GE 9HA.01 heavy duty gas turbines to Shenzhen Energy Group Corporation's Guangming power plant*
- *New power plant is expected to deliver approximately 2 gigawatts (GW) of electricity to Guangdong province and support China's decarbonization roadmap*
- *GE's joint venture with Harbin Electric will provide steam turbines and generators for the project*

Shenzhen, Guangdong Province, China - March 7, 2022 – GE Gas Power (NYSE: GE) and Harbin Electric today announced that Chinese state-owned power utility [Shenzhen Energy Group Corporation Co., Ltd.](#) has ordered power generation equipment for its Guangming combined cycle power plant, located in Shenzhen Guangming district of Guangdong province in China. Powered by three GE 9HA.01 gas turbines, the plant is expected to deliver up to 2 gigawatts (GW) of electricity to the most populous province in the country, with a population of approximately 126 million. Plans are for the first fleet of the plant to be operational by end of 2023, in time to support the retirement of the Guangdong Shajiao coal-fired power complex targeted in 2025.

“We’re committed to supplying the most advanced power generation in alignment with China’s national emissions reduction goals and commitment to building a lower-carbon, safer and more efficient energy system,” said a representative of Shenzhen Energy Group. “GE and Harbin Electric will provide us with the highest standard of quality and reliability for our Guangming power plant. We ordered GE’s H-Class technology for its ability to generate significant electrical output in a flexible and efficient way—crucial for the population of Guangdong province—while helping to ensure reliability of supply.”



China is actively working to promote its energy transition including transitioning from coal-based power generation to gas-fired technologies. Over the past decades, coal-fueled power has fallen from approximately 72.4 percent in 2005 to 56.8 percent in 2020 of China’s energy consumption. Recognizing the increase in power demand and the environmental challenges that are associated with its long-term reliance on coal, the Chinese government is committed to greenhouse gas emissions reduction, confirmed by the recent pledge to have [CO2 emissions peak before 2030 and achieve carbon neutrality before 2060](#).

"Gas can play a significant role in China’s energy future due to its sustainability, flexibility, low capital costs, ability to integrate with carbon capture systems, and rapid deployment capabilities." said Ma Jun, Utility Sales General Manager of GE Gas Power in China. "Natural gas-fired generators have the lowest CO2 emissions of all fossil power generation fuels—and are ideal for countries including China where the need to transition from coal at scale while retaining reliability of supply is paramount. We are excited to work together with Harbin Electric in support of increasing natural gas-fired power generation in China."

The plant will be powered by record-setting technology: in 2016, GE and EDF officially [inaugurated](#) the first ever combined-cycle power plant equipped with GE’s 9HA gas turbine in Bouchain, France. On that day, GE was also recognized for powering the world’s most efficient combined-cycle power plant by achieving at Bouchain something never seen before: converting fuel to electricity at a record 62.22 % efficiency rate. To further advance on the path towards decarbonization utilizing gas power, GE 9HA.01/9HA.02/7HA.03 gas turbines have the capability to burn up to 50% by volume of hydrogen when blended with natural gas—offering a future pathway for even lower or near-zero carbon emitting operations.

For this project, Harbin Electric will provide steam turbines and generators. The Joint Venture called General Harbin Electric Gas Turbine (Qinhuangdao) Co., Ltd ("Joint Venture") was formed in 2019 between GE and Harbin Electric as a joint effort to focus on heavy duty gas turbine localization, aiming to deliver efficient and reliable support for China natural gas power plants. GE and Harbin have significant



commercial momentum in China, and have announced recent orders including three 9HA.02 gas turbines for the Guangdong Energy Group Co., Ltd's [Dongguan Ningzhou power plant](#), two 9HA.01 gas turbines for Guangdong [Huizhou power plant](#) expected to burn up to 10 percent by volume of hydrogen blended with natural gas upon start of operation. In addition, GE is providing the equipment to support the coal-to-gas transition of China Huadian Tianjin Junliangcheng Power Generation Co., Ltd.'s [Junliangcheng power plant](#).

Based in China for over 40 years, GE has been delivering innovative products and services that create significant value for its gas power generation customers to tackle the energy transition challenge. GE Gas Power serves 100+ customers and more than 200 gas turbines in mainland China, with an installed power capacity of 46 GW.

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GE and Harbin Electric

GE Gas Power has continuously deepened its cooperation with its local partner, establishing a [strategic partnership with Harbin Electric](#). The two companies established Qinhuangdao Energy Service Center in 2004, focusing on the maintenance and services of heavy-duty gas turbines hot gas path components. From 2017, GE Gas Power entered this strategic partnership to build a gas turbine manufacturing joint venture in Qinhuangdao. GE has long operated with a commitment to a comprehensive localization structure that effectively increases GE's responsiveness to customer needs and reduces the cost of new units and services.

About GE Gas Power



GE Gas Power is one of the world leaders in natural gas power technology, services, and solutions. Through relentless innovation and continuous cooperation with our customers, we are providing more advanced, cleaner and efficient power that people depend on today and building the energy technologies of the future. With the world's largest installed base of gas turbines and more than 670 million operating hours across GE's installed fleet, we offer advanced technology and a level of experience that's unmatched in the industry to build, operate, and maintain leading gas power plants. For more information, please visit www.ge.com/power/gas and follow GE's gas power businesses on [Twitter](#) and [LinkedIn](#).

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