

# GE Vernova awarded 9HA gas turbine order for Zhoushan, China's largest archipelago

- GE Vernova will provide two GE 9HA.02 gas turbines for Zhoushan Combined Cycle Power Plant in Zhoushan, Zhejiang Province of China
- New power plant aims to bolster supply of reliable electricity to Zhoushan's grid and enhance power supply capacity and power grid peak shaving capability
- Project will also support the construction of Zhejiang's marine industrial clusters, as outlined in the 14th Five-Year Plan of the People's Republic of China (2021-25)

**Zhoushan, China: October 10, 2023** - GE Vernova's Gas Power business (NYSE: GE) and Harbin Electric (HE) today announced that Chinese State Development & Investment Corp., Ltd. (SDIC) Jineng (Zhoushan) Gas Power Generation Co., Ltd., has ordered two GE 9HA.02 gas turbines for a new combined cycle power plant located in the Zhoushan archipelago in Zhejiang Province, China. The plant is expected to deliver nearly 1.7 gigawatts (GW) of electricity to power demand for China's largest archipelago—comprised of 1390 islands—with lower emissions that coal-fired alternatives and supporting the developing of nearby marine industrial clusters. The first unit is scheduled to begin commercial operation by the end of 2025 and it is expected to burn up to 10 percent by volume of green hydrogen blended with natural gas in the future.

"GE Vernova and Harbin Electric will provide us with the highest standard of quality and reliability for our Zhoushan power plant with GE's latest and most advanced gas turbine technology driving the way for reliable, affordable, and lower-carbon electricity for the area," said Tan Peidong, General Manager of SDIC Jineng Gas Power Generation Co., Ltd. "We ordered GE's H-Class technology for its ability to generate significant electrical output in a flexible and efficient way—crucial for the development of the maritime cluster—while helping to ensure reliability of supply in the over 130 urbanized islands of the archipelago."



With their large capacity and flexibility, these gas turbines can help increase the stability and reliability of the grid, with natural gas producing the lowest CO2 emissions of all fossil power generation fuels, and bolster development in Zhoushan. Switching from a coal plant to its gas equivalent can alone reduce emissions by as much 60%, when using the most advanced HA gas turbines. The plant can provide an equivalent capacity which could be produced by burning 1.35 million tons of coal annually.

The project is the first H-class gas-fired power generation project in Zhejiang Province and is consistent with the 14th Five-Year Plan of the People's Republic of China, where Zhoushan has been positioned as a pivotal hub for the maritime economic development of East China's Zhejiang province. This is the first time Zhejiang has clearly designated Zhoushan as "marine central cities" in the province. According to the guideline, Zhejiang will construct two marine industrial clusters during the 14th Five-Year Plan (2021-25) period which will benefit from the development of a green hydrogen hub to be stationed in the archipelago.

The new power plant will use the two GE HA gas turbines, which can turn on or off quickly, to help meet the growing power demand of Zhoushan Power Grid, improving the regional energy structure. By doing so, the turbines can support the growth of renewables, which rely on natural gas power to step in when wind or solar isn't available, enhancing Zhejiang Province's power supply capacity and power grid peak shaving capability. In addition, to further advance on the path towards decarbonization and the Province's implementation of national goal of carbon peak and carbon neutrality by 2060, the Office of Zhoushan Municipal People's Government is committed on accelerating the development of a hydrogen hub in Zhoushan.

"We applaud SDIC's commitment and investment in this project" said Ma Jun, General Manager of Heavy-Duty Gas Turbine Sales of GE Gas Power China. "GE is honored to supply SDIC with our most advanced 9HA gas turbines as part of our long-term strategic cooperation with Harbin Electric. The 9HA.02 DLN2.6e combustion system is designed to operate on up to 50% hydrogen by volume, well



above the plant's initial goal to operate on up to 10% hydrogen, offering a future pathway to SDIC for even lower carbon emitting operations in the future."

GE Vernova has secured five projects powered by ten GE H-class gas turbines in China's mainland, which are expected to provide an installed capacity of more than 8GW when fully in operation. GE has announced orders including three 9HA.02 gas turbines for the Guangdong Energy Group Co., Ltd's <u>Dongguan Ningzhou power plant</u>, two 9HA.01 gas turbines for Guangdong <u>Huizhou power plant</u> expected to burn up to 10 percent by volume of hydrogen blended with natural gas upon start of operation and three 9HA.01 gas turbines for Shenzhen Energy Group Corporation's <u>Guangming power plant</u>. In addition, GE Vernova provided the equipment to support the coal-to-gas transition of China Huadian Tianjin Junliangcheng Power Generation Co., Ltd.'s <u>Junliangcheng power plant</u> which has been in operation since 2021.

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

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#### **About SDIC**

Since its establishment, SDIC has been serving the national strategies, streamlining the layout of state-owned capital investment, enhancing industrial competitiveness and playing the guiding/leading role of state-owned capital investment in major industries and key areas so as to maintain and increase the value of state-owned capital. Based on years of continuously exploring for innovation and restructuring, SDIC has formed three major strategic business units in both domestic and international markets, namely: infrastructure-related industries, emerging industries and financial services & other services. Infrastructure-related industries focuses on energy industry with power generation as the core.



#### **About GE Vernova**

GE Vernova is a planned, purpose-built global energy company that includes Power, Wind, and Electrification segments and is supported by its accelerator businesses of Advanced Research, Consulting Services, and Financial Services. Building on over 130 years of experience tackling the world's challenges, GE Vernova is uniquely positioned to help lead the energy transition by continuing to electrify the world while simultaneously working to decarbonize it. GE Vernova helps customers power economies and deliver electricity that is vital to health, safety, security, and improved quality of life. GE Vernova is headquartered in Cambridge, Massachusetts, U.S., with more than 80,000 employees across 140+ countries around the world. GE Vernova's **Gas Power** business engineers advanced, efficient natural gas-powered technologies and services, along with decarbonization solutions that aim to help electrify a lower carbon future.

GE Vernova's mission is embedded in its name – it retains its legacy, "GE," as an enduring and hard-earned badge of quality and ingenuity. "Ver" / "verde" signal Earth's verdant and lush ecosystems. "Nova," from the Latin "novus," nods to a new, innovative era of lower carbon energy. Supported by the Company Purpose, The Energy to Change the World, GE Vernova will help deliver a more affordable, reliable, sustainable, and secure energy future. Learn more: GE Vernova and LinkedIn.

### **Partnership with Harbin Electric**

GE Vernova's Gas Power business has continuously deepened its cooperation with its local partner, establishing a <u>strategic partnership with Harbin Electric</u>. 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, the company entered this strategic partnership to build a gas turbine manufacturing joint venture in Qinhuangdao. GE Vernova has long operated with a commitment to a comprehensive localization structure that effectively increases the company's responsiveness to customer needs and reduces the cost of new units and services.



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