

GE Vernova upgrades JERA's Futtsu Power Plant with latest technology and announces its start of Commercial Operation

- *After the completion of GE's largest scale flange-to-flange project in Asia, JERA's Futtsu Power Plant-Group 4 now delivers more than 1.5 GW of electricity to the national grid.*
- *As a result, the plant will have improved availability, due to the reduction of periodical maintenance outage, and reliability by applying the latest technologies.*

Futtsu, Japan — August 28, 2023 — GE Vernova's Gas Power business (NYSE: GE) today announced the successful start of commercial operations for JERA's 1.5GW Futtsu Power Plant-Group 4 located in Chiba, Japan, powered by three GE 9HA.01 gas turbines. The 5.6GW facility is comprised of four groups and is one of Japan's largest and most critical power generation facilities and is Japan's largest LNG terminal which receives over 11 million tons of LNG annually. Owned and operated by JERA Co., Inc. (JERA), Futtsu Power Plant plays a vital role in powering the Tokyo Metropolitan area, by supplying reliable electricity to residents and businesses.

GE Vernova, JERA and the EPC partner, Toshiba Energy Systems & Solutions Corporation (Toshiba), performed a flange-to-flange replacement to upgrade the installed three units to the advanced 9HA.01 technology to ensure enhanced performance, efficiency, and lower emissions.

"The completion of the flange-to-flange project at group 4 of the Futtsu Power Plant is testament to our dedication to continuously improving our power generation facilities energy generation," said JERA Futtsu Thermal Plant General Manager, Fumitaka Ninomiya. "The Futtsu facility has now reset the clock on crucial assets, delivering 1.5GW of electricity with more efficient technology that can help reduce emissions by burning fuel more efficiently."

The project marks a significant milestone in Japan's transition towards more sustainable and efficient power generation solutions, as outlined in the [6th Strategic Energy Plan](#). As part of the modernization GE has achieved the guaranteed gas turbine performance, which will result in an increase in availability and improvements in overall plant reliability.

The flange-to-flange replacement, which entails a replacement of an older engine from inlet flange to exhaust flange, is a cost-effective solution to help address multiple power generation needs at once, including asset life extension, performance improvement, emissions controls, and fuel flexibility. The original gas turbines at Group 4 of the Futtsu Power Plant have now been replaced by GE's latest HA gas turbine model. The modernization involved meticulous planning, precise engineering, and site modifications to seamlessly integrate the new turbines into the plant's existing infrastructure.

In addition to an upgraded auxiliary system and upgraded Mark VIe^{*} control system for the gas turbine, steam turbine, and heat recovery steam generator (HRSG), GE Vernova will provide comprehensive equipment maintenance services for 12 years.

"We are proud to celebrate the start of commercial operation of the Futtsu Power Plant, a significant achievement that underlines our commitment to delivering efficient energy solutions," said Ramesh Singaram, President & CEO for GE Vernova's Gas Power Asia. "The successful completion of this project marks our commitment to supporting customers, like JERA, to deliver innovative, reliable, and sustainable power solutions to support and further the energy transition in Japan. Our H-Class combined cycle technology not only leads to significant efficiency, reduced CO₂ emissions, and enhanced cost-effectiveness, but also provides a pathway to co-firing with zero carbon fuels such as ammonia and hydrogen in the future."

Over the last 130 years, GE Vernova has contributed towards Japan's stable power supply by providing power generation equipment including gas turbines, steam turbines, nuclear reactors, hydro and wind turbines. The collaboration with JERA



dates back to 1951 when the company was formerly Chubu and Tepco. Additionally, GE Vernova has a longstanding cooperation with Toshiba since 1875, fostering numerous milestones together.

GE Vernova currently powers 50% of Japan's gas power capacity with 130 units of gas turbines, $\frac{1}{4}$ of the country's current installed capacity of onshore wind, as well as 1.6 GW of offshore wind projects including Akita Noshiro, Akita Yurihonjo, Choshi with Haliade-X, the world's biggest offshore wind turbines set to begin operations targeting 2030.

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About GE Vernova Gas Power business

GE Vernova's Gas Power business 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 Vernova'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.

GE Vernova is a planned purpose-built global energy company comprising of Power, Wind, and Electrification segments and 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 70,000 employees across 140+ countries around the world.

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Media inquiries

Laura Aresi

GE Vernova | Media Relations Leader, Power

laura.aresi@ge.com

Zatalini Zulkipli

GE Vernova | Regional Communications Leader, Asia

zatalini.zulkipli@ge.com

+60 17 224 5752