

GE and IHI Sign Memorandum of Understanding to Develop Gas Turbines that Can Operate on 100% Ammonia

- *Ammonia as a fuel can be a crucial pathway to lowering carbon emissions from power generation to near-zero levels*
- *Under the MOU, GE and IHI will cooperate to develop a retrofittable, 100% ammonia capable combustion system compatible with GE's 6F.03, 7F and 9F gas turbines*
- *As the second decarbonization MOU exploring synergies to reduce carbon emissions that is signed between GE and IHI, both parties will aim to develop a technology roadmap that includes the engineering, prototyping, and testing of the technology*

Tokyo, Japan - January 18, 2023—GE Gas Power (NYSE: GE) today announced the signing of a Memorandum of Understanding (MoU) with IHI Corporation (IHI), a leading heavy industry manufacturer based in Japan to jointly develop ammonia combustion technologies for heavy duty gas turbines to generate electricity with reduced or near zero CO₂ emissions. The collaboration aligns with the companies' commitment to support the global transition towards a lower-carbon future in the power generation sector.

The MoU marks a significant milestone following the [announcement in June 2021](#) of the first MoU between GE and IHI to carry out an economic assessment for the use of ammonia as a carbon-free fuel for both existing and new gas turbines. As part of the MoU, both parties will further define a technology roadmap to develop gas turbine technologies by 2030 that will enable GE's 6F.03, 7F and 9F gas turbines to fire up to 100% ammonia in a safe and commercially competitive manner, with potential implementation across additional gas turbines in the future.

“GE—as a leader in combustion technologies—will bring its extensive experience and expertise in engineering and manufacturing gas turbine combustors and balance of plant systems. GE continues to play an important role in supporting the advancement of the world's energy goals, working alongside IHI Corporation which



is a leader in developing ammonia combustion technologies and value chain development globally,” said Scott Strazik, CEO of GE Vernova. “We hope that this collaboration will pave the way for power plant operators to pursue the adoption of carbon-free fuels such as ammonia for power generation in their GE gas turbines and significantly contribute towards lowering carbon emissions in the power sector globally.”

Hiroshi Ide, President of IHI Corporation said, “IHI continues to develop businesses across the entire fuel ammonia value chain, from production to transport, storage and utilization. Through this collaboration with GE, we will focus our efforts on satisfying domestic and overseas demand for large-scale ammonia gas turbines, stimulating further demand for fuel ammonia and expanding the fuel ammonia value chain to rapidly realize a carbon-neutral society.”

GE has been present in Asia for over a century, where GE Gas Power operates in more than 22 countries with an employee base of over 4000+ employees. GE has been present in Japan since 1886, when the company first delivered generators to government printing factories. In the power sector, GE is committed to supporting the country’s goals of becoming a carbon neutral society by 2050 through a more diversified energy mix with larger shares for renewable energy, higher efficiency for thermal generation to replace aging and less efficient power plants, and expanding the role of ammonia and hydrogen as a fuel for gas turbines while adding CCUS technologies as a pathway to enabling decarbonization in future. Today, GE’s fleet represents close to 50% of gas-powered capacity in the country.

###

About GE Gas Power

GE Gas Power is a world leader in natural gas power technology, services, and solutions. Through relentless innovation and continuous collaboration 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, visit the company's website at www.gepower.com. Follow GE Power on Twitter [@GE_Power](https://twitter.com/GE_Power) and on [LinkedIn](#) at GE Power.

GE Gas Power is part of GE Vernova, a dynamic accelerator comprised of our Power, Renewable Energy, Digital and Energy Financial Services businesses, focused on supporting customers' transformations during the global energy transition.

About IHI

IHI is a preeminent Japanese integrated heavy industry group that originated with the establishment of the nation's first modern shipyard in 1853. It leveraged its shipbuilding technology to expand into onshore machinery, bridge, plant, aero-engine, and other manufacturing fields. IHI has provided an array of solutions in recent years. These are principally in the Resource, Energy and Environment; Social Infrastructure and Offshore Facilities; Industrial Systems and General-Purpose Machinery; and Aero Engine, Space and Defense business segments. In power generation, the Company manufactures boilers and gas turbines for thermal power plants. It is developing technology for ammonia co-firing and 100% firing and is constructing carbon-free fuel ammonia supply chain to help decarbonize the economy. For more information about IHI click below: <https://www.ihi.co.jp/en/>

For more information, contact:

Laura Aresi

PR Leader
Investor Relations Group
GE Gas Power
IHI Corporation
laura.aresi@ge.com
www.ge.com

Zatalini Zulkipli

Regional Comms Leader
GE Gas Power Corporate
zatalini.zulkipli@ge.com

Riki Kobayashi

Media Relations &
Communication Division,
kobayashi4642@ihi-g.com

<https://www.gevernova.com/>



[GE Vernova](#)