GE Vernova secures two H-class combined cycle equipment orders with hydrogen capability to replace coal power plants in Germany

- *EnBW awarded two hydrogen-ready combined heat and power plants in Heilbronn and Altbach/Deizisau, near Stuttgart, to an international consortium, led by GE Vernova*
- *The two H-Class gas turbine powered plants are expected to deliver nearly 1.4 GW of electricity and steam for the citizens, commerce and industry of Heilbronn and the larger Stuttgart area*
- *The two projects will support coal-fired power phase out while enhancing the reliability and stability of the German electricity grid*
- *GE Vernova's advanced 9HA.01 gas turbines will be fueled initially by natural gas, with the targeted fuel switch to 100% by volume of hydrogen in the 2030s*

Altbach/Deizisau, Germany – November 6, 2023 – GE Vernova's Gas Power business (NYSE: GE) today announced it has secured two orders from EnBW to provide H-Class natural gas-fired combined cycle power generation equipment for EnBW's Combined Heat and Power (CHP) power stations in Heilbronn and Altbach/Deizisau, near Stuttgart, the capital and largest city of the German state of Baden-Württemberg. The orders include the equipment, construction of the plants as well as software solutions, maintenance and services for ten years. GE Vernova will lead an international consortium for the projects, including the engineering, procurement and construction (EPC) companies Bonatti and SENER. The projects will replace existing coal-fired plants with more efficient natural gas fired plants while enabling future fuel mix combustion of up to 100% by volume of hydrogen in the 2030s.

Heilbronn and Altbach/Deizisau efficient CHP plants are expected to deliver in total nearly approximately 1340 megawatts (MW) to the national grid, the equivalent needed to power approximately 2,4 million German homes1, as well as steam for

district heating for the citizens, commerce and industry of Heilbronn and the larger Stuttgart area.

Each 680MW power plant will replace existing coal-fired units at Heilbronn and Altbach/Deizisau, with the new plants targeted to begin operation by the end of 2026. Switching from a coal plant to its gas equivalent can alone reduce carbon emissions by as much 60%, and lower emissions levels for other pollutants such as mercury, NOx, SOx and particulate matter, when using the most advanced HA gas turbines.

In conjunction with this announcement, EnBW today celebrated the commencement of construction work at the Altbach site at the presence of local authorities. The project is aligned to the European and national regulations in the decarbonisation path towards 2050 to promote district heating in achieving the goals of efficiency, energy sustainability, use of renewables, and reduction of fossil fuel use.

“Today we celebrated the start of the works with the local authorities, and our partners,” said Michael Class, Senior Vice President Generation Portfoliomanagement, EnBW. “These power plants will help to increase power supply security in Germany while continuing to phase out coal and expand a more reliable deployment of renewable energy resources in our country as we’ll be able to dispatch power quickly in response to grid fluctuations. In addition, the two power plants are designed to operate on up to 100% hydrogen by volume, in line with the national goal to deploy renewables and green hydrogen at large scale, but foremost in line with EnBW’s sustainability goals to be carbon-neutral by 2035. Others talk about hydrogen-ready power plants – we already started to built them. That makes the difference!”

“In a region with an increasing power demand due to planned coal-fired retirements, we are proud to work with EnBW, Bonatti and Sener, to support a lower-carbon future in Germany,” says Brice Raisin, Senior Executive Sales Leader of the GE Vernova’s Gas Power business. “Heilbronn and Altbach/Deizisau CHPs will

be the first new GE Vernova's H-Class combined heat and power plants to be installed in Germany, and they are expected to be among the most efficient and flexible, once they begin operation. We are committed to providing our advanced gas turbine technology to accelerate coal phase-out and increase the share of renewables as we work towards zero-carbon gas-based power generation with hydrogen."

H-class fired combined heat and power plants can offer tremendous benefits to the residents of Stuttgart and the federal state of Baden-Württemberg. District heating application from gas-fired power plants is a good addition to heat pumps or solar thermal systems, which on one hand require a lot of space and can therefore often not be implemented in inner-city buildings and, on the other hand, heat from solar thermal systems is mainly only available in summer.

Each plant will be powered by a GE 9HA.01 gas turbine, an STF-D650 steam turbine, a W88 generator, a triple pressure with reheat Heat Recovery Steam Generator (HRSG) and GE Vernova's integrated Mark* VIe Distributed Control System (DCS) software solution to improve asset visibility, reliability, and availability while reducing operating and maintenance costs.

The agreement includes services and maintenance for ten years, as well as GE Vernova's Digital business' Asset Performance Management (APM) software. Using APM Reliability in the cloud, EnBW can gain access to powerful Digital Twin technology that allows for the use of Predictive Analytics to help reduce costs, achieve higher availability, and increase reliability and efficiency by amplifying the performance of the 9HA.01 once the power plants are operational.

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About GE Vernova

GE Vernova is a planned, purpose-built global energy company that includes Power, Wind, and Electrification businesses 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 Digital** business is focused on providing a suite of software products and services to customers aiming to accelerate a new era of energy by electrifying and decarbonizing the energy ecosystem through intelligent and efficient data analytics, monitoring, and management.

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.

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