GE Vernova’s SMR reactor design passes significant regulatory milestone in the UK after Step 1 Generic Design Assessment approval

- GE Hitachi’s BWRX-300 Small Modular Reactor completes Step 1 of the Generic Design Assessment process
- This approval marks an important step forward in the consenting process to bring GE Hitachi’s BWRX-300 SMR technology to market in the UK

LONDON (December 12, 2024) - GE Vernova’s nuclear business, GE Hitachi Nuclear Energy (GEH), has progressed to the next step of the Generic Design Assessment (GDA) with its BWRX-300 Small Modular Reactor (SMR) technology.

Step 1 of GEH’s GDA began in January 2024 and focused on agreeing the scope and schedule for Step 2, which has now been successfully completed. Today marks the start of Step 2.

The GDA process ensures that new reactor designs meet the highest standards for safety, security, and environmental protection.

GEH’s 10th generation SMR design – the BWRX-300 – leverages a unique combination of a new, patented safety breakthrough and proven components. The BWRX-300 builds on decades of real-world boiling water reactor operating experience and innovation, using a standard design, a proven delivery model and GEH’s experience with cross-border regulatory collaboration.

GEH and Ontario Power Generation (OPG) are developing the first BWRX-300 at OPG’s Darlington site near Toronto. Early site preparation work has been completed, with construction expected to start in 2025 and commercial operation to commence by the end of 2029. A total of four 300 MW units are planned for the

Darlington site.

Andy Champ, GEH UK Country Leader, said: “Progressing to Step 2 of the GDA demonstrates our unwavering desire to deliver a fleet of nuclear reactors in the UK. Our design will be tried and tested through our partnership with OPG to deploy the first civil SMR in the G7. This means we have extensive experience across the full nuclear lifecycle, with a proven track record deploying reactor technology on time and on budget.”

Chris Southern, Senior Project Director, GEH, said: "This significant milestone underscores GEH’s commitment to advancing SMR technology safely in the UK. Our BWRX-300 technology builds on our already proven BWR design, offering not only a smaller but simpler modular reactor, without sacrificing safety responses or operational performance. We remain dedicated to demonstrating the feasibility and reliability of our SMR technology as we progress through Great British Nuclear’s SMR competition.”

Rafał Kasprów, CEO of ORLEN Synthos Green Energy (OSGE), said: “Congratulations to GEH on the successful and on-schedule completion of GDA Step 1 and the transition to the GDA Step 2 of the BWRX-300 in the UK. In the European market, pan-European SMR platforms are beginning to emerge, based on GEH's proven technology. This allows for leveraging invaluable licensing experience in the nuclear industry, utilizing existing supply chains, and simplifying access to financing.

“From our perspective, the simultaneous deployment of BWRX-300 technology in several European countries significantly reduces risk, is attractive to investors, and ensures optimal use of existing production infrastructure, including in the UK and Central and Eastern Europe (CEE).”

OSGE is co-financing part of the licensing of the BWRX-300 with GEH as part of the Future Nuclear Enabling Fund project.

Jon Fowler, Vice President for Nuclear Power at Amentum, said: “It is a great achievement to reach this stage in the GDA process in a relatively short space of

time. Amentum was able to draw on our extensive experience with applications for new nuclear plants to provide design capabilities to help achieve this. Our collaboration with GEH on this application is accelerating the UK ambition to achieve greater energy security and meet its net-zero carbon targets."

Building on a long and deep history in the UK, GE Vernova has a significant local footprint with four manufacturing facilities and more than 30 percent of the country's electricity currently powered by our technology.

GEH is committed to developing its robust UK supply chain further for its BWRX-300, having recently signed a series of Memorandum of Understanding (MoUs) with Aecon, AtkinsRéalis, Amentum and Laing O'Rourke. These agreements build on GEH's previously announced collaboration with Sheffield Forgemasters to discuss how the Sheffield-based company's forgings could help contribute to BWRX-300 deployment in the UK. GEH also held a SMR supply chain conference in Sheffield earlier this year, which was attended by over 150 UK businesses.

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About GE Vernova
GE Vernova (NYSE: GEV) is purpose-built global energy company that includes Power, Wind, and Electrification segments and is supported by its accelerator businesses. 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 approximately 75,000 employees across 100+ countries around the world. Supported by the Company's purpose, The Energy to Change the World, GE Vernova technology helps deliver a more affordable, reliable, sustainable, and secure energy future.

GE Vernova's Nuclear energy business, through its global alliance with Hitachi, is a world-leading provider of nuclear fuel bundles, services, and advanced nuclear

reactor designs. Technologies include boiling water reactors and small modular reactors, such as the BWRX-300, which is one of the simplest, yet most innovative boiling water reactor designs. **GE Vernova's Nuclear fuel business**, Global Nuclear Fuel (GNF), is a world-leading supplier of boiling water reactor fuel and fuel-related engineering services. GNF is a GE Vernova-led joint venture with Hitachi, Ltd. and operates primarily through Global Nuclear Fuel-Americas, LLC in Wilmington, N.C., and Global Nuclear Fuel-Japan Co., Ltd. in Kurihama, Japan.

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.
Learn more: GE Vernova and LinkedIn.

Forward-Looking Statements
This document contains forward-looking statements – that is, statements related to future events that by their nature address matters that are, to different degrees, uncertain. These forward-looking statements often address GE Vernova's expected future business and financial performance and financial condition, and the expected performance of its products, the impact of its services and the results they may generate or produce, and often contain words such as "expect," "anticipate," "intend," "plan," "believe," "seek," "see," "will," "would," "estimate," "forecast," "target," "preliminary," or "range." Forward-looking statements by their nature address matters that are, to different degrees, uncertain, such as statements about memoranda of understanding and the expected impact of the relationships created thereunder, contract and project proposals, bidding processes, government review processes and competitions, investments or projects and their expected results and the impacts of macroeconomic and market conditions and volatility on the Company's business operations, financial results and financial position and on the global supply chain and world economy.

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