Tennessee Valley Authority submits application for construction of first BWRX-300 small modular reactor in the U.S.

KNOXVILLE, Tenn. (May 20, 2025) – Tennessee Valley Authority (TVA) has submitted an application to the U.S. Nuclear Regulatory Commission to construct a GE Vernova Hitachi Nuclear Energy (GVH) BWRX-300 small modular reactor (SMR) at the Clinch River site in Oak Ridge, Tennessee. It is the first construction permit application for a BWRX-300 in the U.S.

“TVA’s investment in the standard design of the BWRX-300 technology will accelerate its deployment, helping meet the rising demand for energy and enhancing energy security,” said **Craig Ranson, President & CEO, GVH**. “This milestone, in addition to this month’s decision by the Province of Ontario to build the western world’s first SMR, demonstrates that this technology is advanced and real.”

TVA has invested in the standard design of the BWRX-300 as part of a technical collaboration agreement with Ontario Power Generation (OPG), Synthos Green Energy and GVH. TVA is also leading a coalition of utility companies and supply chain partners that has applied for an $800 million U.S. Department of Energy grant to accelerate construction of the nation’s first SMR.

Momentum continues to build around the global deployment of the BWRX-300. Earlier this month, the Province of Ontario and OPG announced approval to proceed with construction of the first BWRX-300 at OPG’s Darlington site near Toronto. A total of four BWRX-300s are planned for the site with construction of the first unit to be complete by the end of the decade.

In January, it was announced that Duke Energy has entered into an agreement to invest in activities to advance the standard design and licensing of the BWRX-300 SMR and that American Electric Power (AEP) has selected the BWRX-300 for potential deployment at the Indiana Michigan Power Rockport Plant in Spencer

County, Indiana, pending approval of the DOE funding request that TVA is leading.

The BWRX-300 SMR represents a cutting-edge technology designed to deliver reliable and carbon-free power with enhanced safety and efficiency. Each BWRX-300 will provide approximately 300 MW of electricity, enough to produce the equivalent electricity needed to power 300,000 homes while significantly reducing the complexity and cost associated with traditional nuclear reactors.

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About GE Vernova Hitachi Nuclear Energy
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. HITACHI is a trademark of Hitachi, Ltd. used under trademark license. | GE is a trademark of General Electric Company used under trademark license.

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