



Tennessee Valley Authority, Ontario Power Generation and Synthos Green Energy Invest in Development of GE Hitachi Small Modular Reactor Technology

WASHINGTON, D.C.—March 23, 2023—GE Hitachi Nuclear Energy (GEH), Tennessee Valley Authority (TVA), Ontario Power Generation (OPG) and Synthos Green Energy (SGE) are teaming up to advance the global deployment of the GEH BWRX-300 small modular reactor (SMR).

Through a technical collaboration agreement that was announced today in Washington, D.C., TVA, OPG and SGE will invest in the development of the BWRX-300 standard design and detailed design for key components, including reactor pressure vessel and internals. GEH is committed to standard design development and anticipates a total investment of around \$400 million associated with the development. Each contributor has agreed to fund a portion of GEH's overall cost and collectively will form a Design Center Working Group with the purpose of ensuring the standard design is deployable in multiple jurisdictions. The long-term goal is for the BWRX-300 design to be licensed and deployed in Canada, the U.S., Poland and beyond.

“I applaud the leadership shown by OPG, TVA and SGE in working together to advance the common design of the BWRX-300,” said GEH President and CEO Jay Wileman. “This unprecedented collaboration, which spans three countries, will offer benefits to each of the team members and demonstrates confidence in the role that our SMR technology will play in helping nations meet decarbonization and energy security goals. Building on our design-to-cost approach, this collaboration will further strengthen the cost competitiveness of the BWRX-300.”

“Working together, we are taking intentional steps to advance new nuclear in the U.S. and around the world. TVA is leading the way for the nation by investing and helping to shape the standard design of the GEH BWRX-300, which will add more reliable, resilient, affordable and clean energy on the grid,” said TVA President and CEO Jeff Lyash. “TVA has extensive experience and expertise building and operating nuclear facilities, and we are uniquely positioned to help lead this effort moving forward. We appreciate the support of our federal and state officials who are helping us go further, faster in developing innovative, cost-effective technologies that will help support the energy security of the nation.”

“Nuclear power will play a key role in meeting increasing clean electricity needs in Ontario and beyond, which is why OPG is constructing North America's first grid-scale SMR at the Darlington New Nuclear Project site,” said OPG President and CEO Ken Hartwick. “The collaboration agreement announced today will help advance necessary work to develop this next generation of nuclear power efficiently, benefiting electricity-users in all our jurisdictions.”

"For the first time ever, a private Polish company is investing in a design for nuclear power plants. We do this because GE Hitachi's state-of-the-art modular technology is simply ideal for decarbonizing energy and heat production in Poland, and also for our other zero emission projects in the United Kingdom and throughout Central Europe," said Rafał Kasprów, CEO of Synthos Green Energy.



Site preparation is now underway for a BWRX-300 at OPG’s Darlington New Nuclear Project site in Clarington, Ontario, with construction expected to be complete by the end of 2028. This will be the first grid-scale SMR in North America. TVA is preparing a construction permit application for a BWRX-300 at the Clinch River Site near Oak Ridge, Tennessee and exploring additional sites in the TVA service area for potential SMR deployments. ORLEN Synthos Green Energy (OSGE), a joint venture between SGE and PKN Orlen, and its partners have started the pre-licensing process in Poland by submitting an application to the National Atomic Energy Agency for assessment of the BWRX-300. OSGE has initiated a site selection process for its proposed first BWRX-300 and intends to deploy this first unit by the end of this decade with the future potential for a fleet of BWRX-300s. OSGE has initiated a site selection process for this first unit.

The BWRX-300 is being designed to reduce construction and operating costs below other nuclear power generation technologies. Specifically, the BWRX-300 is being developed to leverage a unique combination of existing fuel, plant simplifications, proven components and a design based on an already licensed reactor.

About GE Hitachi Nuclear Energy

GE Hitachi Nuclear Energy (GEH) is a world-leading provider of advanced reactors and nuclear services. Established in 2007, GEH is a global nuclear alliance created by GE and Hitachi to serve the global nuclear industry. The nuclear alliance executes a single, strategic vision to create a broader portfolio of solutions, expanding its capabilities for new reactor and service opportunities. The alliance offers customers around the world the technological leadership required to effectively enhance reactor performance, power output and safety. Follow GEH on [LinkedIn](#) and [Twitter](#).

About OPG

As one of North America’s largest, most diverse electricity generators, OPG invests in local economies and employs thousands of people across Ontario and the US. OPG and its family of companies are leading the development of new clean technologies, refurbishment of existing assets, and electrification initiatives to power the growing demand of a clean economy for decades to come. Learn more about how the company is advancing these initiatives while prioritizing people, partnerships, and strong communities by reading OPG’s [Climate Change Plan](#), [Reconciliation Action Plan](#), and [Equity, Diversity, and Inclusion \(ED&I\) strategy](#).

About TVA

The Tennessee Valley Authority is the nation’s largest public power supplier, delivering energy to 10 million people across seven southeastern states. TVA was established 90 years ago to serve this region and the nation by developing innovative solutions to solve complex challenges. TVA’s unique mission focuses on energy, environmental stewardship, and economic development. With one of the largest, most diverse, and cleanest energy systems – including nuclear, hydro, solar, gas, and advanced technologies – TVA is a leader in our nation’s drive toward a clean energy future.



GE VERNOVA

TVA is a corporate agency of the United States, receiving no taxpayer funding, deriving virtually all of its revenues from sales of electricity. In addition to operating and investing its revenues in its electric system, TVA provides flood control, navigation, and land management for the Tennessee River system, and assists local power companies and state and local governments with economic development and job creation. Learn more at [Energy System of the Future](#).

About Synthos Green Energy

Synthos Green Energy (SGE) has been established to develop and implement zero-emission technologies and electricity production from renewable sources. The company is interested in obtaining affordable, on-demand, carbon-free electricity from a dependable, dedicated source. The company is part of Poland's biggest private industrial group, which operates in eight countries and is owned by Michal Solowow, a private entrepreneur and industrialist. SGE teamed up with PKN Orlen, the largest energy company in Central Europe to form Orlen Synthos Green Energy (OSGE), a company dedicated to deploying a fleet of GEH BWRX-300 in Poland.

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