TENNESSEE VALLEY AUTHORITY

TVA Nuclear Strategy

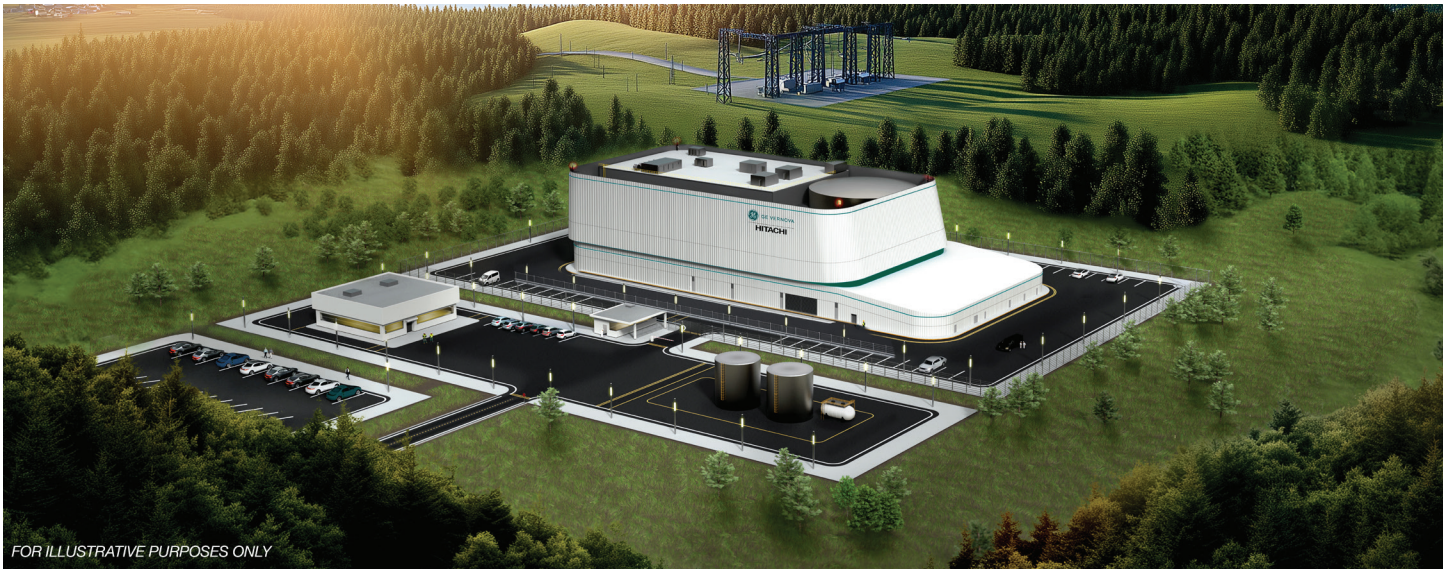
Leverage TVA's industry-leading operational and technical expertise to accelerate the nuclear energy industry for the U.S.

Strategic Priorities for Nuclear Leadership

- **Maintain operational excellence** by safely, reliably, and efficiently operating TVA's existing and new nuclear reactors, including major investments and life-extension efforts.
- **Forge partnerships** with federal agencies, private companies, and regional leaders to enable nuclear development and commercialization.
- **Demonstrate financial discipline** and manage costs responsibly to minimize customer impact.
- **Develop the nuclear ecosystem** in the Tennessee Valley, supporting jobs, innovation,and advanced technologies such as fuel, supply chain, fusion, and recycling.

Principles for Bringing New Nuclear to the Tennessee Valley

- **Facilitate economic development** by ensuring that funding for new nuclear plants is secured by a consortium of partners who hold financial responsibility without burdening TVA's customers.
- Support partners in **identifying market off-takers** for energy produced, so that TVA customers aren't shouldering the cost.
- **Minimize TVA's risk** throughout design, construction, and commissioning by fostering collaborative and well-managed projects.
- Use **TVA's proven expertise to operate** completed nuclear plants, delivering safe, reliable, and efficient performance.



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New Nuclear Siting Evaluation and Preparation

TVA's siting process considers a range of flexible options for deploying nuclear technologies at one or more locations, aligned with TVA's generation needs and the Integrated Resource Plan (IRP). The plan is technology-agnostic, preserves flexibility, and accelerates readiness – **enabling TVA and its partners to act quickly when opportunities arise.**

Primary Sites for Nuclear Deployment

TVA has identified eight potential sites for nuclear deployment in the Tennessee Valley with **Clinch River** in Oak Ridge, Tennessee and **Bellefonte** in North Alabama as the primary sites most ready to deploy nuclear plants. In Sept. 2026, the Nuclear Regulatory Commission issued TVA a construction permit for Clinch River Unit 1 - the first permit for the BWRX-300 small modular reactor in the U.S.



Clinch River Site – spans over 935 acres, a primary TVA site for new nuclear deployment, with recent site clearing and infrastructure improvements to prepare the way for construction. TVA received a construction permit for Clinch River Unit 1 in Sept. 2026.



Bellefonte Site – spans 1,400 acres, a primary TVA site for new nuclear deployment, offering ample space for advanced reactor development – could accommodate small modular reactors as well as larger gigawatt reactors – and supports a variety of potential future energy innovation.

TVA is strategically partnering with innovative companies like GE Vernova Hitachi, Kairos Power, Type One Energy, ENTRA1 Energy and Oklo, as well as state and federal agencies, to advance the development of new nuclear technologies to provide affordable and abundant energy. This is the energy we need to power America's economic prosperity and fuel artificial intelligence, quantum computing and advanced manufacturing.