

TVA: Leading America's Nuclear Future

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TVA is leading the nation in developing advanced nuclear technologies, like small modular reactors, that will play a critical role in our nation's energy and national security.

TVA has already committed \$350 million in developing SMRs and holds the nation's first early site permit for a SMR from the Nuclear Regulatory Commission for its Clinch River Nuclear Site.

Developing first-of-a-kind technologies are inherently expensive, and TVA has built a global coalition of partners to advance the development of SMR technology. With TVA's leadership, this coalition of industry partners are pursuing a grant through the U.S. Department of Energy for development of SMR technology at Clinch River.

DOE funding will not only accelerate deployment of the first SMR at Clinch River but will also help secure America's global nuclear leadership by paving the way to establish a domestic supply chain and highly skilled workforce for the BWRX-300 reactors and support future deployment across the United States and its allied nations around the world.



TN Gov. Bill Lee visits Clinch River site

“Nuclear is the most reliable and efficient energy the world has ever known. It is the building block that will power America's next-generation AI and industrial technologies to dominate the global economy.”

Jeff Lyash,
TVA President and CEO

TVA's Nuclear Leadership Timeline

May 2016	Applied for Early Site Permit with U.S. Nuclear Regulatory Commission.
Dec. 2019	NRC issues TVA nation's first Early Site Permit for SMRs.
Feb. 2022	TVA Board of Directors approve \$200 million for launch of New Nuclear Program/Clinch River Project.
March 2023	TVA, Ontario Power Generation (OPG), Synthos and GE-Hitachi sign a technology collaboration agreement to invest in development of a standard design for the BWRX-300 SMR.
May 2023	New five lane bridge into Clinch River Nuclear site completed.
July 2023	Gov. Bill Lee (TN) names TVA COO Don Moul as a member of the Tennessee Nuclear Energy Advisory Council.
Aug. 2024	TVA Board authorizes an additional \$150 million for the Clinch River Project.
Jan. 2025	TVA applied for \$800 million from the U.S. Department of Energy with a strong coalition of partners to advance Clinch River Project, establish a domestic supply chain, and support future deployment across the US.
Jan./Feb. 2025	TVA issues Environmental Impact Statement for BWRX-300 at Clinch River for public comment.

PROJECTED DATES

Aug. 2025	Seek TVA Board Approval to begin procuring long lead materials, detailed design engineering, construction planning.*
Jan. 2026	Begin early site preparation*
July 2026	Begin reactor excavation*
Aug. 2028	Start nuclear construction*
Dec. 2033	Commercial operation*



Clinch River Unit 1 location



Technology Collaboration Agreement



U.S. Rep. Chuck Fleischmann, TVA CEO Jeff Lyash, TN Governor Bill Lee



Core boring for site ground analysis



Illustrative Rendering for SMR

*TVA has not yet decided to deploy an SMR. Any decisions will be subject to support, risk sharing, required internal and external approvals, and completion of all necessary environmental and permitting reviews.