NEWSLETTER JULY 2025

-TVA Adds 500 Megawatts to Region's Power Grid

Jul 9, 2025 **Contact: Scott Fiedler**

Release Summary

- TVA adds 500 megawatts of energy to the region's power grid – enough electricity to power almost 300,000 homes.
- The 10 new aeroderivative gas turbines, at Johnsonville Combustion Turbine Plant, can go from a cold engine to full power in five minutes, generating 50 megawatts per unit.
- **Editor's Note** – Click here for plant interviews, b-roll and photo gallery.

KNOXVILLE, Tenn. — Just in time for summer, the Tennessee Valley Authority is unleashing more American energy with the announcement Wednesday that it has added 500 additional megawatts of electricity to the power grid – enough energy to power almost 300,000 homes.

With the completion of the 10 new aeroderivative gas turbines at Johnsonville Combustion Turbine Plant, west of Nashville, the Johnsonville site can now provide more than 1,200 megawatts to TVA's grid, which provides electricity to more than 10 million people across seven states.

Justin McBath, TVA senior project manager, noted that the new natural gas turbines are similar to the aerospace engines they evolved from. They are designed to ramp up and down quickly or be turned off when not needed.

"They have a fast-start option," said McBath. "You can go from a cold engine to full power in five minutes, generating 50 megawatts per unit – and these will actually generate up to around 57 to 59 megawatts under the right conditions."

These features make the new units highly flexible – ideal for meeting daily and seasonal peaks in electricity demand. Last month, these units were put to the test as the region experienced its first heatwave. The average system temperature on June 25, 2025 (96 degrees) was the same as June 25 a year ago — but TVA saw an approximate 500-megawatt increase in demand. The year-over-year power increase reflects population growth, economic expansion, and the integration of new electricity-dependent technologies.

“This project helps to support the continued growth and demand for electricity in the Valley by adding new generators on the system,” said Eric Grau, TVA vice president of Gas Operations. “And the added benefit of these generators in particular is to provide additional reliability.”

The Johnsonville aeroderivative turbines are the first of their kind for TVA, but they won’t be the last. Construction is already underway on 16 aeros at TVA’s 1,500-megawatt energy complex on the site of Kingston Fossil Plant in Roane County, Tennessee.

Moving forward, TVA plans to build about 6,200 megawatts of new generation. Over 3,500 of those megawatts are already under construction – enough to power about 2 million homes.

-TVA Exploring Alternative Sites for Generation Proposed in Cheatham County

Jul 15, 2025 From TVA.com **Contact: Scott Brooks**

Agency will continue its largest expansion in history to provide reliable, affordable, American energy to more than 10 million people across seven states.

KNOXVILLE, Tenn., July 15, 2025 – TVA is executing on the Administration’s call to unleash American energy and achieve energy dominance. As part of this effort to meet the growing demand for electricity, the Tennessee Valley Authority is investing in new transmission and generation to continue providing affordable, reliable electricity to more than 10 million people across seven states. TVA is conducting comprehensive National Environmental Policy Act (NEPA) reviews of potential sites, including in Cheatham County, Tennessee.

Based upon feedback received in response to TVA’s public scoping process and at Board listening sessions, TVA has been exploring alternatives to the 900 MW simple cycle combustion project proposed for Cheatham County. With input from the TVA

Board of Directors, the site off Lockertsville Road is no longer TVA's preferred alternative. Also, with feedback from community leaders, we are evaluating a site at the nearby industrial park as well as other Middle Tennessee sites that will support economic development and address the increasing power demand across the system. With potential changes in the regulatory environment, we are also reviewing other potential options, such as working with the Administration to extend the life of certain assets in our fossil fleet, to meet growing demand and the timing of replacement generation.

Natural gas continues to be a vital part of the TVA generation portfolio, and TVA will still need to build gas to meet demand and unleash American energy. Today, TVA has 6,200 megawatts of new generation builds planned, with 3,570 megawatts currently under construction.

-Preparing Bull Run for America's Energy Future

Jun 26, 2025

Demolition Clears the Way for Reuse of the Site

The decommissioning process at the former Bull Run Fossil plant is clearing the way for future reuse of the site.

TVA retired the single-generator coal-fired power plant, located near Oak Ridge, Tennessee, in December 2023 as the plant reached the end of its life cycle in providing affordable, reliable power to the region.

Since then, TVA teams have been safely removing structures and preparing for future opportunities for TVA power generation and economic development.

What's next

While the decommissioning proceeds, including the demolition of the two tall stacks and other structures, TVA has placed some plans in motion to leverage the site to help build America's energy future.

One of them is to install a synchronous condenser in the existing turbine building, which will ensure grid stability in the region, especially as power demand continues to rise as the population increases.

Similar to a generator, a synchronous condenser operates to support the transmission grid.

Based on Bull Run's strategic geographic location in the TVA service territory, the synchronous condenser will provide grid stability in that largely populated area.

In addition, TVA is exploring fusion technology with high potential to become a commercial energy source over the next decade.

More to come

TVA is considering an array of future options at the site, such as pursuing economic development opportunities, further exploration of innovation, adding new generation and establishing a portion of the area for a green space for community use.

The future of this site will depend on a few factors – environmental reviews to determine the impact of each option, community feedback on the preferred best use, and a final decision by TVA.

It's a thorough process to determine what's best for the people of the Valley region.

-Technology Extends Coal Plant Life to Power Region

May 12, 2025

Coal continues to be an important part of TVA's power system. A new emissions control system enables continued reliability for Shawnee to power the region's homes and businesses.

Powering the region's growing economy requires a strong, diverse energy system – one made of different technologies and fuel sources to ensure that, despite extreme weather and market volatility, TVA can continue to provide uninterrupted electricity to more than 10 million residents across seven states.

Power demand is rising due to population growth, onshoring of manufacturing and AI technology. TVA is investing in its fleet of more than 32,000 megawatts – nuclear, natural gas, hydro, coal, solar, and battery storage technologies – to ensure each unit is running as efficiently as possible and the enterprise is getting every megawatt it can from its diverse mix of generating plants.

Coal Longevity and Reliability

In Paducah, Kentucky, crews at the nine-unit Shawnee Fossil Plant recently completed construction and commissioning of new emission control systems on four units. The selective catalytic reduction system reduces nitrogen oxides, an emission of coal-fired power generation.

This allows Shawnee to increase unit operations across summer peak season, while staying environmentally compliant. A majority of TVA's coal fleet has environmental protection systems – selective catalytic reduction and SO2 controls, for example – that remove 85% to 95% of sulfur dioxide and nitrogen oxide emissions.

"This investment protects the environment while also allowing these units to continue to operate over the next decade," Chris Bone, senior manager of projects, said. "The new system enables TVA to run the units at full power when needed to meet the increasing need for electricity in our area while also operating within environmental guidelines."

Over three years and 1.2 million hours worked, these major modifications on units 2, 3, 7 and 8 ensure cleaner air quality while optimizing the generation capabilities at Shawnee.

Of the nine Shawnee units, six currently include SCR emissions controls with two more units approved for additional emissions controls called scrubbers, which reduce sulfur dioxide emissions. The scrubbers for those two units will be operational by 2028.

The Future of Shawnee

TVA's coal fleet is one of the oldest in the nation. While the enterprise is committed to maintaining its existing generation assets for reliability, it is also planning for the future of continued generation at these sites.

TVA has already started on its innovative Project Phoenix – the world's first large-scale solar field on a closed coal ash site, which will add up to 100 megawatts to the system. It's one of many examples of how TVA is adding up to 5,500 megawatts of additional capacity to meet future demand.

TVA is also exploring options for extending the life of coal units at Shawnee Fossil Plant. This includes the potential installation of co-firing capability, which uses a combination of coal and natural gas fuel to generate electricity. This technology provides greater reliability, better air quality and improved market resiliency while extending the life of coal-fired units.

"Coal continues to be a key part of TVA's diverse energy portfolio," Bone said. "We will continue to invest in this technology as we build America's energy future."

Let the TVA Power America's Nuclear Energy Future

By: Bill Lee, Tennessee Governor (Editorial published in the *Wall Street Journal, June 27, 2025*)

The U.S. needs more energy and needs it fast. Electricity demand is projected to surge five-fold in five years, with data centers driving half that growth. As Washington smothered the energy sector in red tape, China raced ahead in the global competition for artificial-intelligence supremacy and energy infrastructure. That's why President Trump's executive orders to overhaul nuclear regulation and expand deployment mark a turning point for America's energy future. And Mr. Trump has a secret weapon to win the AI race: the Tennessee Valley Authority. Created during the Great Depression to electrify the South, the TVA now manages one of America's largest nuclear fleets and was the first American utility to bring a new nuclear reactor online this century. As a federally owned utility, the TVA answers to the president, not shareholders. With the nation's first permit to build next-generation small modular reactors at the Clinch River site in Oak Ridge, Tenn., the TVA is poised to show how fast, safe, scalable nuclear power can work—if the federal government seizes the moment. Mr. Trump has an opportunity to reshape the TVA's leadership with board appointments. The Biden administration forced the TVA to shutter working coal plants. The failed green agenda buried projects in red tape, cramping energy supply and driving prices higher. The TVA of yesterday won't cut it. The TVA of tomorrow, with a new board and a clear, aggressive mission, will be Mr. Trump's greatest asset. His executive orders set the goal of quadrupling America's nuclear fleet by 2050. That will only be possible if the TVA leads the way. Sens. Marsha Blackburn and Bill Hagerty understand this urgency and support this transformation. Once the new board members are in place, the TVA will need to move fast. The global race for energy and AI is already under way. To realize the full potential of Mr. Trump's orders, we need fewer regulations, smarter financing, and bold leadership. The TVA is the testing ground. Start with red tape. Before Georgia's Vogtle plant was completed in 2023, no new nuclear plants had been built since the Nuclear Regulatory Commission was formed in 1975. The NRC still treats each reactor as a bespoke project, demanding costly, repetitive reviews under shifting regulations. Regulatory changes alone were responsible for more than 60% of the cost overruns at Ohio's Davis-Besse plant in the 1960s and '70s. Things haven't improved much since then, which is one reason why Congress in 2024 passed the Advance Act, requiring the NRC to create rules for advanced reactors that promise smaller footprints and faster construction. Mr. Trump has ordered the NRC to streamline its licensing process—including capping the timeline for new applications at 18 months. This is the right move. Now the NRC must deliver on its promise and quickly implement reforms like the new Part 53 licensing framework to enable the next generation of advanced reactors without duplicative, unnecessary requirements. The U.S. can't win the AI race by building nuclear plants one at a time. We need dozens, deployed swiftly. The NRC and Energy Department can now certify promising small modular reactor designs for rapid deployment at scale. The TVA is building the nation's first such reactor with a replicable design. With its latest executive orders, the Trump administration can streamline environmental reviews on existing plant sites and federal lands, eliminate superfluous hearings and fees, and use tools like the Defense Production Act to push projects forward. The TVA, alongside Oak Ridge National Laboratory and the University of Tennessee, has the land, expertise and willingness. All they need is the green light. Investment is the next piece. New technologies are always expensive at first. The Energy Department's existing $800 million small-modular reactor fund represents a crucial first step to offset these initial expenses. President Trump also "owns" a bank in the form of the department's Loan Program Office with billions in lending capacity that is now officially tasked with financing reactors and restarting shuttered plants. The federal government can open those funds up to the utility the president and the American taxpayers also own: the TVA. Since the TVA operates under a debt cap unchanged since 1979, these funds could immediately finance new nuclear plants while maintaining competitive rates. The greatest opportunity lies in private sector partnerships. The TVA can strike deals with hyperscalers—tech firms investing tens of billions in next-generation data centers—that need reliable, abundant energy to meet the explosive demand of the AI era. The Trump administration can establish America's first "special compute zone" at Oak Ridge National Laboratory and the Clinch River site, leveraging federal assets to accelerate nuclear deployment and provide energy to these facilities. Tennessee stands ready to deliver. Global nuclear leadership hangs in the balance. Russia controls 40% of the global nuclear fuel market, while China plans 150 new reactors by 2035, far outpacing American efforts. The U.S. must catch up—and the TVA can help us do it. Building reactors at home will secure our energy supply, restore our manufacturing base, and protect our national security. America has the right leadership in the White House to secure energy dominance, and Tennessee is the right place to start. Let's unleash the TVA of tomorrow.

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