



Fall 2023 Newsletter

TVA Helps Build Photo Ark

Valley Region is Fertile Ground for Nat Geo Project

As the water glistened with the faint light of dawn, a group of biologists waded quietly through Shoal Creek and its nearby streams.

In their search for hard-to-find and rare aquatic species in this northwest corner of Alabama, their steps were careful and measured.

They wanted to avoid scaring off these sought-after animals.

After multiple days of searching the waterways, the biologists made ample progress in gathering and documenting native species.

And they would soon spread their findings worldwide.



Tuskaloosa ©Photo by Joel Sartore/National

Geographic Photo Ark. NatGeoPhotoArk.org

Photo Ark

In 2006, National Geographic photographer Joel Sartore set a goal to document every species of creature living in zoos and wildlife sanctuaries throughout the world.

The ongoing project, [Photo Ark](#), is designed to inspire people to protect at-risk animals.

It ultimately aims to capture photos of nearly 20,000 species worldwide.

To help in this effort, TVA and other agencies have partnered with National Geographic to help find and photograph various species in their native habitats.

This year, these partners ventured to Shoal Creek near Florence, Alabama, to begin their hunt.

Various team members from TVA headed to the creek and surrounding areas for the three-day scavenger hunt of sorts, which involved snapping pictures of the various species.

They encountered a host of organisms, including various fish, aquatic insects, mussels, snails and crayfish.

Their support for Photo Ark will help raise awareness about [biodiversity in the Valley region](#).



Striate Hornsnail ©Photo by Joel Sartore/National Geographic Photo Ark. NatGeoPhotoArk.org

Supporting Biodiversity

When talking about biodiversity, many people may picture a rainforest rich with fauna, large animals and insects.



While these areas are indeed biodiverse hotspots, they're not the only places to find diversity in an ecosystem.

Tennessee and Alabama, for example, are home to more species of fish, crayfish, freshwater mussels and aquatic snails than any other region in North America. The waterways in these states are filled with a plethora of species that many people don't even know about.

"One of the incredible things about the Tennessee River Valley is that the level of biodiversity is unparalleled," TVA aquatic biologist Matt Reed said.

There is much importance in making people aware of these species-rich waters and the significance of biodiversity.

Spreading knowledge about these animals is the best way to protect them and ensure generational benefits of biodiversity for the ecosystem.

Given the broad reach of the Photo Ark project, the waterways of the Valley region—and the abundance of life—can receive much wider recognition.

This will lead to enhanced knowledge about the animals in the area and teach people how to properly care for the environment.

"People aren't going to protect something that they won't see," [TVA fisheries biologist Jon Michael Mollish](#) said. "We want to protect and enhance the Tennessee River and its tributaries. And part of doing that is just by spreading the good word about biodiversity and conservation."



TVA Adds Natural Gas Generation to the Grid

TVA reached an exciting milestone as the agency enhances its generation capacity with the commercial operation of three new units at Colbert Combustion Turbine site in North Alabama on July 25, 2023 – months ahead of schedule and under budget.

The \$500 million Colbert Combustion Turbine Expansion project adds approximately 750 megawatts of modern new natural gas generation capacity to TVA's generation fleet – enough dispatchable electricity to power over 400,000 homes.

The Colbert project reinforces TVA's commitment to cleaner generation while providing flexibility, responsiveness, and reliability for the power grid. Over the next decade, TVA will build and/or evaluate 7,000 megawatts of new gas generation – enough dispatchable electricity to power over 3.8 million homes.

Natural gas generation allows TVA to add more solar energy to the grid because it can generate power to make up for the time when the sun does not shine. TVA plans to add about 10,000 megawatts of solar by 2035.

Since construction began in the summer of 2021, over one million work hours have been dedicated to this project. These hours have been worked with no significant environmental events, OSHA serious events, or lost-time injuries.

TVA is building one of the most advanced energy systems in the nation, which includes about 3,800 megawatts of new generation, including combustion turbines, solar projects, combined-cycle natural gas, and energy storage. To support this effort, TVA is investing over \$2.8 billion in transmission system improvements across its service area through 2027, to provide clean, low-cost, reliable power to the 10 million residents of the Tennessee Valley.

TVA Plans to Invest \$15 Billion Over the Next Three Years to Meet Region’s Growth

Released Aug 24, 2023

- \$25 billion invested in TVA’s existing system and new generation in the past 10 years.
- Investing \$1.5 billion in FY23-27 in energy efficiency and demand response programs to help lower energy bills and offset more than 30% of new load growth in the next 10 years
- Building about 3,800 megawatts of new generation by 2028 to meet growing demand.
- Adding 10,000 megawatts of solar energy by 2035.

CHATTANOOGA, Tenn. — The Tennessee Valley Authority Board of Directors took decisive action on Thursday to approve \$15 billion in investments over the next three years to build additional generation and upgrade the existing system to ensure the region continues to benefit from affordable, reliable power. TVA is focused on meeting growing electricity demand while maintaining energy security and moving to a net-zero carbon future.

“It took us 90 years to build our current power system which positively changed the lives of millions,” said TVA president and CEO Jeff Lyash. “In the next 30 years, we will have to double or triple the current systems at a speed unlike any other time in TVA history to ensure we can continue to provide affordable, reliable, resilient and sustainable energy to fuel the region’s economic growth.”

Changing Energy Landscape – Growth

In 1950, about 2% of the energy used in the United States came from electricity. Today, it’s around 22% and growing.

During the decade before COVID, TVA’s seven-state region saw almost no electric load growth. Post-COVID, the region has experienced tremendous economic growth, fueled by several factors — including TVA’s clean, affordable electricity. TVA’s base power rates have remained flat during these 4 years while significant investments were made in our power system.



In addition, the area’s population is growing at about three times the national average. “The direction and investments TVA is making now are rooted in the realities of the energy demand around us,” said Lyash.

To ensure the region has the energy it needs to meet growing demand and economic development, the TVA Board unanimously approved a 4.5% increase in the effective rate. That translates to an average increase of about \$3.50 on a typical residential energy bill each month.

The need for funding to build new generation is not unique to TVA. Even with a rate adjustment, TVA’s energy costs remain lower than 70% of the nation’s top 100 utilities. For comparison, surrounding peer utilities requested or received \$6.6 billion in rate increases from February 2022 through December 2023.

“TVA is not immune to cost increase, inflation and supply chain challenges,” said Lyash. “We worked to minimize any impact on families while balancing our region’s growing energy needs, and these funds will allow us to invest in new capacity as well as invest in the reliability of our current assets.”

Over the past 10 years, TVA has invested \$25 billion in existing and new generation. Currently, TVA is adding 3,800 megawatts of new generation. Three new flexible, dispatchable units at Colbert came online in July under budget and ahead of schedule.

An additional 1,250 megawatts are scheduled to come online in 2023 and 2024 at Paradise and Johnsonville. TVA is aggressively working to add more than 10,000 megawatts of new solar energy by 2035 and is adding its first battery storage facility in Vonore, Tennessee.

In addition, TVA is working to offset approximately 30% of new load growth in the next 10 years through energy efficiency and demand response programs. TVA will invest \$1.5 billion in FY23-27 in energy efficiency and demand response programs to accomplish this, continuing to help lower energy bills.

Over the next three years alone, TVA is planning to invest \$15 billion in our system.

“Our region’s future is bright,” Lyash said. “The challenge is finding the right balance in changing conditions that are fiscally responsible while ensuring that we can provide the power you need over the next 30 years.”

Other Board Action

- Approved TVA’s Fiscal Year 2024 budget

- Rescinded the Declaration of Surplus for the Bellefonte Nuclear Plant site.

TVA places a high priority on transparency. Learn more about TVA's diversity and inclusion efforts, sustainability, strategic planning, financial health, and new nuclear program at tva.com/about-tva/reports.

TVA, TC Energy Invest \$1.25 Million in Carbon Capture Study

Released Sep 14, 2023

KNOXVILLE, Tenn. – The Tennessee Valley Authority announced Thursday that it will work with TC Energy to jointly invest \$1.25 million to study carbon capture technology to reduce emissions at TVA's natural gas facilities in Ackerman, Mississippi, and in Drakesboro, Kentucky.

TVA is exploring a number of options to decarbonize its power grid, and the goal of the partnership is to conduct a feasibility study to determine the costs, technical challenges, and operational impacts of carbon capture technology. Information from this study will be used to assess future asset decisions for the TVA fleet.

"TVA is a clean energy leader, and we are focused on reducing carbon emissions in an efficient and cost-effective manner," said Dr. Joe Hoagland, TVA Innovation Research vice president. "Exploring all available technologies to eliminate carbon will allow us to move faster as we work to be net-zero by 2050."

Carbon capture works by sending the exhaust from natural gas power facilities to a CO₂ scrubber adjacent to the plant. A chemical reaction absorbs the CO₂ before the exhaust is released into the air. The CO₂ is then pumped to another vessel and treated with heat that releases the CO₂. This released CO₂ is compressed and sent deep into the earth for safe storage.

"This public-private partnership is made possible by a shared vision of safely moving toward a reliable and sustainable low-carbon future," said Omar Khayum, TC Energy vice president of Energy Origination and Development. "We are excited to work with TVA to evaluate solutions that will lower the carbon intensity of reliable, baseload natural gas power facilities."

About TC Energy

We're a team of 7,000+ energy problem solvers working to move, generate and store the energy North America relies on. Today, we're taking action to make that



energy more sustainable and more secure. We're innovating and modernizing to reduce emissions from our business. And, we're delivering new energy solutions –

from natural gas and renewables to carbon capture and hydrogen – to help other businesses and industries decarbonize too. Along the way, we invest in communities and partner with our neighbors, customers and governments to build the energy system of the future.

TC Energy's common shares trade on the Toronto (TSX) and New York (NYSE) stock exchanges under the symbol TRP. To learn more, visit us at [TCEnergy.com](https://www.tcenergy.com).

ATVG Fall Meeting Oct. 24-25 Agenda Published

ATVG will be having their fall meeting at the Marriott Downtown Gatlinburg TN October 24-25. Please make your reservations early! [See Agenda and Registration here](#) or on the following page



ATVG Fall Meeting
October 24-25, 2023 Marriott Courtyard Gatlinburg Downtown (Eastern Time Zone)
Phone: (865) 436-2008

October 24th

- 5:30 p.m. Early Arrivals: Social Hour and Pizza Offsite location (meet in lobby)

October 25th

- 11:00 a.m. ATVG Board Meeting and ATVG Annual Meeting
With Election of 2024 Officers (Separate agenda will be provided)
- 11:45 p.m. Lunch in Lobby/Courtyard
- 1:00 p.m. ATVG General Meeting – Welcome and Introduction Lamar Paris Call to Order Lamar Paris, ATVG Board President
- 1:15 p.m. TVA Update – Bert Robinson, TVA
- 1:45 p.m. Program Topics:
 - TVA's Advanced Nuclear Program
 - Clinch River Nuclear Project (Small Modular Reactor) - TVA Integrated Resource Plan
 - TVPPA: Electric Vehicles, Power Distributor Issues and Capacity Discussion
 - Gatlinburg: Tourism, Workforce and Wildfire Recovery
- 4:30 p.m. Wrap-Up – Mike Arms
- 5:00 p.m. Social Hour in Lobby/Courtyard
- 6:00 p.m. Dinner at Calhoun's Banquet Center Please help us make necessary arrangements by letting us know if you will be attending.

Send the enclosed registration form by email to: registration@atvg.org or by U.S. mail to: ATVG, P.O. Box 3578, Clarksville, TN 37043 Association of Tennessee Valley Governments Meeting Registration Form Registration Fee: \$175.00 for members and affiliates; \$300.00 for non-members



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Phone: (865) 436-2008

Name:

E-Mail:

Spouse's Name:

Registration Fee for spouse is included/No additional charge Company/Organization:

Full Address:

Make checks payable to: Association of Tennessee Valley Governments- P.O. Box 3578
– Clarksville, TN 37043

Send the enclosed registration form by email to: registration@atvg.org or by U.S. mail to:
ATVG, P.O. Box 3578, Clarksville, TN 37043 Association of Tennessee Valley
Governments Meeting Registration, Registration Fee: \$175.00 for members and
affiliates; \$300.00 for non-members