

Renewables Highlights

Fiscal Year 2024¹



Today, TVA is the largest public power provider in the U.S. and one of the nation’s largest power producers.

We partner with 153 local power companies (LPCs) to serve approximately 10 million people across seven Southeastern states and 61² directly served customers, including 54 industrial customers and 7 military and federal installations. We operate the nation’s **third largest nuclear fleet**, one of the largest high-voltage transmission systems in North America and is the largest public power system in the USA.

Residential Solutions

Green Switch

Green Connect

Dispersed Power Production

From the moment the TVA Act was signed and one of the world’s great hydropower systems got its start, we’ve been **committed to producing clean, low-cost renewable power**. As market demand has evolved, so have our generation methods, partnerships and expertise.

In 2024, TVA achieved approximately 58% reduction in its carbon emissions compared to 2005 baseline standards. We are working to increase that number to 70% by 2030 through innovation and technologies that we believe will deliver meaningful, impactful progress.

Business & Industry Solutions

Green Invest

Green Flex

Green Switch

Dispersed Power Production

To meet carbon goals and the needs of our customers, TVA is building the energy system of the future. We are leveraging increased market demand for renewable energy solutions to drive economic development while also providing energy system and environmental benefits for our region. Companies and organizations with sustainability goals are looking for green reasons to locate or stay in the TVA service area and we have solutions for them.

To increase availability and reduce the cost of renewable energy, we have developed TVA Green, a comprehensive portfolio of renewable solutions to meet the sustainability goals of business and residential customers, offered in partnership with local power companies. These programs are about more than a clean region. TVA Green is about working closely with partners to provide innovative solutions, making our region more competitive for jobs and investments, and a long-term commitment to make the TVA service region a great place to live and do business.

At the end of the fiscal year, TVA’s existing and contracted renewable energy was over 9,700 MW, including solar capacity totaling more than 2,800 MW across 3,800 installations in 7 states.

¹ Fiscal Year 2024: October 1, 2023 - September 30, 2024

² 2024 10-K

³ TVA tracks renewable energy commitments and claims, in part, through the management of renewable energy certificates (RECs). This mechanism allows businesses and individuals to purchase RECs through TVA to meet their renewable energy and sustainability goals. TVA Green Programs are offered in partnership with LPCs, which makes it easy for end-use consumers to purchase RECs for their personal sustainability goals.



2024 Highlights

- 9,766 MW Operating and Contracted Renewables Capacity in 2024
- Community solar available to over 1.5 million customers



Green Switch & Green Flex Programs

- 8,614 total participants
- 761,122 MWh Green Power Sales



Green Invest Program

- 1,952 MW utility-scale, new-to-the-world solar agreements to-date
- A total of 8 projects in operation for Google, Meta, General Motors, Knoxville Utilities Board, Vanderbilt, and Arkema



Partner Flexibility Option

Enables our long-term LPC partners to self-generate up to 5% of their energy needs, giving them more flexibility to meet their customers' unique needs or clean energy goals.

- 102 LPCs signed Flexibility Agreements
- 33 LPCs are actively engaged in planning 36 projects
- 18 operating solar projects, 92.63 MW operating*



2024 Renewable PPAs

TVA issued a carbon-free RFP in 2022, and during 2024, TVA signed power purchase agreements totaling nearly 1,200 MW of solar generation and 220 MW of battery storage capacity from the nation's largest carbon-free RFP.



Dispersed Power Production

- 1,197 generation sources
- 279 MW of power



Battery Technology

TVA's first owned and operated grid-scale battery energy-storage system, a 40 megawatt-hour demonstration system, will help ensure continued electrical reliability for up to 14 gigawatts of solar energy planned through 2038.

TVA has 255 MW of battery storage contracted



Carbon Reduction

TVA is driving towards 10K MWs of solar power on the system by 2035.

In doing so, TVA recently acquired nearly 1,000 MW of new solar and 200 MW of battery storage for the power system as a result of the nation's largest carbon-free RFP.

Renewable Leadership

Green Invest

TVA offers a utility-scale renewable solution, Green Invest, which primarily utilizes new to the world, in-Valley solar projects to help companies achieve their sustainability goals.

The program offers a cost-competitive solution to meet the long-term sustainability goals of business, industrial and organizational customers in the Valley.

Generation Flexibility

Generation Flexibility was launched to Valley Partners in June 2020 and was enabled by TVA's Long-Term Partner Agreement with local power companies (Valley Partners).

Through **Generation Flexibility**, Valley Partners can generate a portion of their total energy load to meet the renewable energy goals of their customers, attract sustainability-focused businesses to their communities, and/or solve individual challenges for their customers or distribution systems.

Total Renewable Energy Resources

- 6,964 MW **Operating** Renewable Energy Resources
- 2,802 MW **Contracted** Renewable Energy Resources
- Renewable Energy Resources include Solar, Wind, Hydroelectric, and Biomass