



Executive Summary Sustainability Report FY 2021

TVA Sustainability

Today. Tomorrow. Together.

TVA TENNESSEE
VALLEY
AUTHORITY



FORWARD-LOOKING STATEMENTS

This document contains forward-looking statements relating to future events and future performance. All statements other than those that are purely historical may be forward-looking statements. In certain cases, forward-looking statements can be identified by the use of words such as “may,” “will,” “should,” “expect,” “anticipate,” “believe,” “intend,” “project,” “plan,” “predict,” “assume,” “forecast,” “estimate,” “objective,” “possible,” “probably,” “likely,” “potential,” “speculate,” or other similar expressions. TVA believes that the assumptions underlying the forward-looking statements are reasonable. Numerous factors could cause actual results to differ materially from those in the forward-looking statements. For a discussion of these factors, please see the annual, quarterly and periodic reports that TVA files with the Securities and Exchange Commission. New factors emerge from time to time, and it is not possible for management to predict all such factors or to assess the extent to which any factor or combination of factors may impact TVA's business or cause results to differ materially from those contained in any forward-looking statement. TVA undertakes no obligation to update any forward-looking statement to reflect developments that occur after the statement is made. Reporting: All references to years in this annual Sustainability Report refer to TVA's fiscal years ending September 30, unless specifically identified as calendar years. All financial data is reported in U.S. dollars. This report contains key measures of the progress being made and describes our strategies for the future. TVA is committed to continual improvement in reducing environmental impact and modernizing the electricity grid to support new technologies.

Publication Date: May 4, 2022

Reporting Period: October 1, 2020 to September 30, 2021

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TVA’s innovative, integrated approach to sustainability

At TVA, creating a sustainable future for the Valley is engrained in our mission, serves as the foundation of our climate strategy, and underpins our approach to environmental, social and governance practices. We are aggressively pursuing innovative solutions, from building the energy system of the future to working with leading-edge partners as we aspire to reach net-zero carbon emissions.

We do more than generate energy. We actively preserve and enhance our environment and natural resources, providing flood management, recreational opportunities and protection of public lands and waters. We also work closely with partners to advance community and economic development.

As the largest public power provider in the United States and the third-largest electricity generator in the nation, we provide:

- **Energy that is low-cost, reliable, resilient and clean**
- **Environmental Stewardship that protects and preserves public lands, water and air**
- **Economic Development to attract investment and create jobs in the region**

Our FY 2021 Sustainability Report is designed with the people of the Valley in mind – from residents and municipalities, to local power companies and industrial customers, to non-governmental organizations — all of whom are partners on this journey. We encourage and want stakeholder input and feedback.

ESG/SUSTAINABILITY STAKEHOLDERS

LPC Customers

Public

Large Municipals

Financial Community

Industrial Customers

NGOs

Bondholders

Federal Government

LPC Customers: Local power company customers

NGOs: Non-governmental organizations

FY 2021 Sustainability Report Highlights

- Advanced a variety of initiatives to move toward our aspirational goal of net-zero carbon emissions
 - Electrified the region – attracting electric vehicle and electric battery manufacturers, partnering with local power companies and others to build a network of electric charging stations, and unveiling our own commitment to electrify TVA’s fleet
 - Amplified our biodiversity efforts, including approving our Biodiversity Policy, working with partners to establish vegetative buffers along streams to improve water quality, and maintaining native plants on 1,500 acres of grassland to support pollinator species
 - Assisted communities in Tennessee and Kentucky after devastating storms swept through the area – restoring power as quickly and safely as possible, while also helping in recovery efforts
 - Launched TVA’s first sustainability-focused financial instrument – a \$500 million green bond offering that drew more than \$2 billion in initial orders
- Accelerated funding and programming through Connected Communities to help our local areas gain the technology, training and infrastructure needed to better engage with a flexible energy grid of the future
 - Enhanced energy efficiency of schools and homes through the Uplift programs to reduce energy burden in our communities
 - Established the 1 Million Trees Program for afforestation in the Tennessee Valley
 - Advanced Diversity, Equity, Inclusion and Accessibility awareness within and outside TVA
 - Continued our operational excellence
 - Maintained 99.999% power reliability for the 22nd consecutive year
 - Prevented an estimated \$9.7 billion in flood damage in our recorded history as our series of dams and waterway controls mitigate the impact of heavy rainfall

TVA’s sustainability work is categorized into four areas. Informed by input from our stakeholders about the sustainability issues that matter the most to them, we have identified priority sustainability issues within each area.

Economic Impact

- Energy Affordability
- Reliability and Resiliency
- Jobs Created and Retained
- Flood and Drought Management
- Energy Innovations
- Renewable Energy
- Investor Relations
- Supplier Partners

Environment

- Climate Change and Resilience
- Air Quality
- Water Quality and Availability
- Waste Management
- Habitat and Biodiversity Protection
- Cultural Resource Management

Social

- Health and Safety
- Environmental Justice
- Community Vitality and Engagement
- Reservoir and Stewardship Benefits
- Local Power Company Partnerships
- Diversity and Inclusion
- Labor Relations
- Recruitment, Development and Retention
- Skilled Workforce Availability

Governance

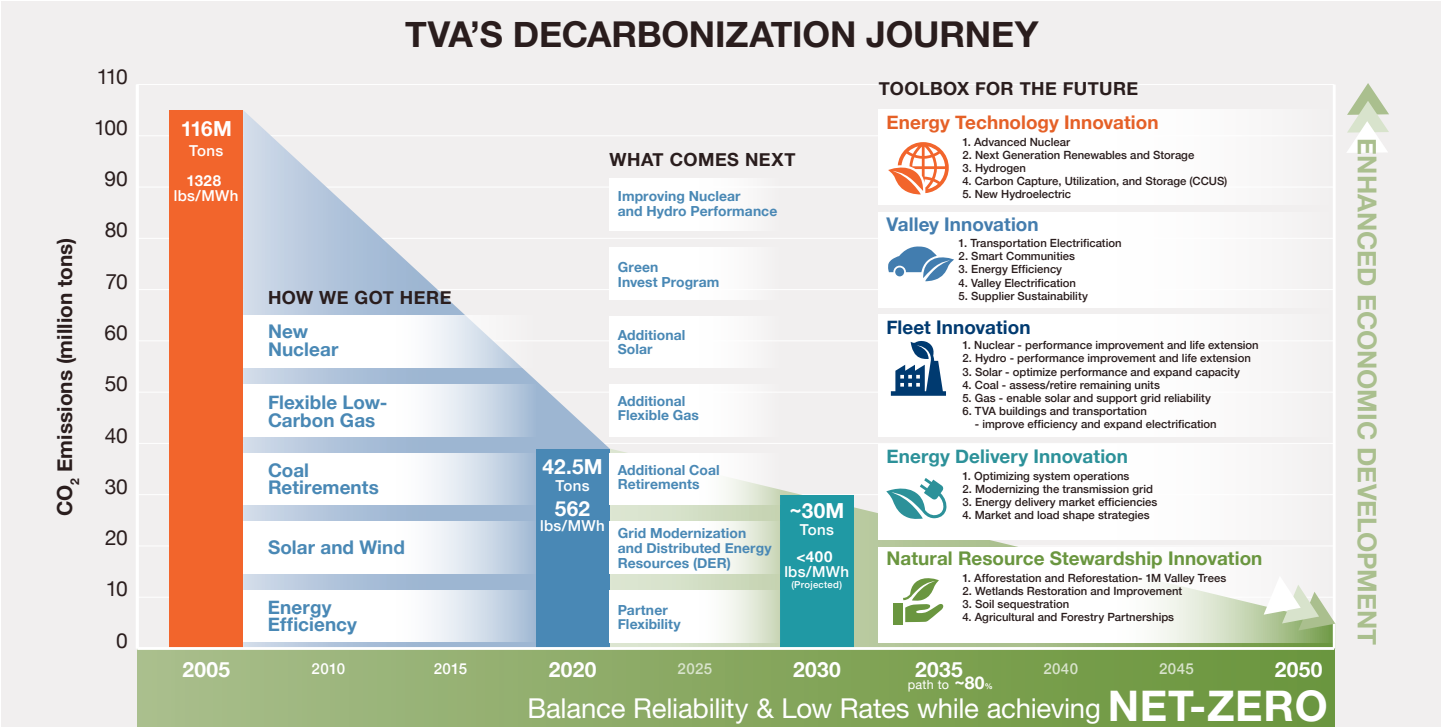
- Transparency
- Board and Executive Diversity
- Systemic Risk Management
- Ethics
- Cyber and Physical Security
- Sustainable Financing Framework

Aspiring to Achieve Net-Zero

The 10 million people and businesses of our seven-state region depend on TVA to make life better through our investments, innovation and commitment to sustainability. We are proud of our track record — and focused on an even brighter tomorrow. We consistently identify and explore new clean energy technologies to serve our customers with reliable, resilient, low-cost service.

We are actively reducing carbon emissions with each investment we make. In 2021, we solidified our commitments, announcing our aspirational goal of achieving net-zero carbon emissions by 2050. We are executing a plan to 70% carbon reduction by 2030, and we are developing a path to approximately 80% reduction by 2035.

- Here’s what we’ve accomplished:
- Reduced mass carbon emitted by 57% since 2005
 - Grew our operating and committed solar by 77% over the past year
 - Announced our New Nuclear Program to explore small modular reactors
 - Invested \$289 million into our new System Operations Center to employ smart grid technology and prepare for the energy system of the future
- Our efforts are comprehensive and complex – and because of this, we are on track to be a significant contributor to the nationwide target of 50% reduction in carbon emissions by 2030. Progress requires collaboration so as we look ahead, we are partnering with industry peers; federal, state and local agencies; and local power companies to identify and implement solutions that will close the gap and move us toward net-zero.



*The graphic above was published in 2021 in TVA’s Carbon Report and reflects CY 2020 data. For CY 2021, mass carbon emitted was 50.3 million tons and carbon emissions intensity was 638 lbs/MWh.

Economic Impact: Partnering to Build the Region's Clean Energy Economy

The vitality and growth of a region is dependent upon many factors. We work hand-in-hand with our local power company partners to generate community energy; attract new businesses, jobs and capital investment to the area; and build a better tomorrow. Here's a By-the-Numbers view of the results stemming from our work with partners:

Last 5 years:

- Attracted about 350,000 jobs to the region
- Delivered more than \$45.9 billion in capital investments

Many of the capital investments we're helping to attract are tied to a clean energy economy. Ford Motor Company, General Motors, Nissan, Volkswagen and automotive industry suppliers have brought their electric vehicle



APPROXIMATELY

80,900 Jobs
Over \$8.8 Billion
Capital Investment

across our seven-state territory through economic development in FY 2021 alone

operations to the region, and as a result, the Tennessee Valley is becoming the Southeastern leader in electric vehicle production. In the past decade, electric vehicle and battery manufacturing has accounted for \$13.8 billion in investment and more than 10,500 new jobs in the region.

We're also taking deliberate steps to prepare our communities and economy for the future of energy. Our Connected Communities initiative is closing the technology, economic, energy and environmental equity gaps for the communities and people TVA serves. We are investing \$3 million in technology pilot projects to address challenges such as broadband access, environmental risk monitoring, digital literacy training and next-generation career options.

As a significant employer across the region, we're expanding our network of suppliers with a focus on leveraging local and diverse suppliers. This further stimulates the economy and ensures we are supporting a wide range of businesses in and around the Tennessee Valley.

Environment: Stewarding the Region's Resources

The Tennessee Valley and surrounding regions are some of the most biodiverse areas across the nation. The waterways stretch some 11,000 shoreline miles. And the lakes, campgrounds and trail systems provide recreational opportunities and natural beauty that is unrivaled. TVA has a critical role in ensuring our environment and resources remain well-protected and available for generations – and we take this responsibility seriously.

We are innovating and partnering with communities across the region to create a clean energy economy while maintaining high reliability and low rates. We strive to create a future adaptive and resilient to the impacts of climate change.

Our environmental efforts include planting trees to help sequester carbon emissions, managing aggressive clean air control and waste management programs, and implementing a biodiversity policy that solidifies our efforts to conserve native plants and animals. Water quality is a focal point for us – and we continue to conduct water quality sampling near our facilities to ensure we protect the resources we all value. We also work closely with more than 20 federally recognized Indian tribes to manage cultural resources on TVA lands.

These are only a few examples of the many ways in which we are stewards of the land, water and other vital resources.

Emissions reduced from historic peaks

96.9%

Reduction in nitrogen oxide (NO_x) below CY 1995 levels through CY 2021 from TVA owned and operated generation

98.8%

Reduction in sulfur dioxide (SO₂) below CY 1977 levels through CY 2021 from TVA owned and operated generation

57%

Reduction in mass carbon emitted between CY 2005 and CY 2021 from TVA owned and operated generation, and purchased power



Social: Serving People and Communities Across the Region

Serving the region's communities is a critical part of our mission. TVA and our local power company partners make a positive impact in our communities through economic development; environmental stewardship; and delivering reliable, resilient, low-cost, clean power. Through our Valley Public Power Model, we invest revenue into the communities we serve.

TVA's dams and reservoirs are a vital part of the Tennessee Valley. In 2021, we worked on or completed nine dam safety projects. TVA Dam Safety teams protect lives and property by helping ensure our dams are designed, constructed, operated and maintained for safety and reliability.

We provide environmental education and volunteer opportunities that promote outdoor activities and caring for natural resources. In 2021, we engaged with more than 1,200 children through 74 outreach and environmental education programs across the Valley.

To better support our workforce, we are on a journey to evolve our culture and make TVA an even greater place to work. That means building a culture that values inclusion with diversity, continuing to focus on safety, and providing additional employee support to enhance well-being.

Community Care Fund

Provided nearly
\$9 Million
through 2021
by TVA and LPC matching funds

LPCs have donated
to more than
**600 Valley
Organizations**

At TVA, we are built to serve. We have created programs to assist consumers in underserved communities and those struggling with a high energy burden. Whether providing relief during the COVID-19 pandemic or supporting cleanup and rebuilding efforts after severe weather events, TVA is there to help.





Governance: Driving Progress Through Accountability and Transparency

Our governance structure is critical to driving sustainability. As a government-owned corporation, our mission of service is fundamentally different from that of publicly traded companies. We built a governance structure within the company that provides the oversight and perspective capable of driving progress.

We maintain high ethical standards and are committed to transparency and engagement with stakeholders, because engagement is a key tool in strengthening our work toward a sustainable future. Our two formal advisory councils — the Regional Energy Resource Council and the Regional Resource Stewardship Council — provide valuable input on numerous topics, including sustainability.

To protect our assets and information, we leverage federal entities and other partners to better identify, detect, protect and respond to potential cyber and physical attacks. In May 2021, President Biden signed Executive Order 14028, “Improving the Nation’s Cybersecurity.” TVA has submitted all reports as required, established response teams and an oversight structure, and initiated projects to address required actions.

Closing

This report outlines a glimpse of the work we do. The annual Sustainability Report is a place for TVA to report on the broad value of our teams’ work and to set forth our path to bring value long into the future. As we look ahead, we will continue to be responsive to the sustainability needs of our stakeholders and work to ensure that the content of our sustainability reporting is meaningful and of value to those interested in our sustainability efforts. TVA has a strong history of leading in sustainable practices and we are well-positioned to continue that track record into the future.



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