



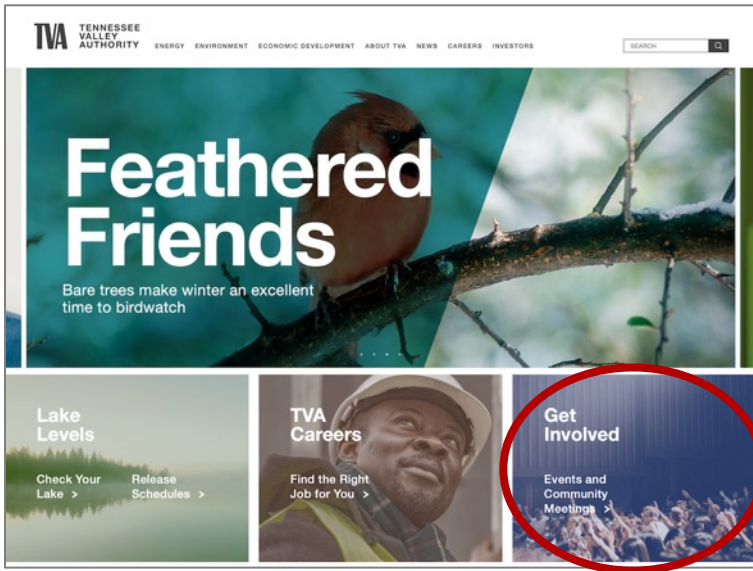
Board Meeting

May 11, 2022
Young Harris, Georgia



Public Input

TVA has several opportunities for the public to offer input:



- Board Listening Sessions
- TVABoard.gov
- board@tva.gov
- Regional Resource Stewardship Council (RRSC)
- Regional Energy Resource Council (RERC)
- Public Land Information Line (PLIC)
- Complaint Resolution Hotline
- Social Media
- TVA Ombudsman
- NEPA Process



Board Meeting

May 11, 2022
Young Harris, Georgia



Opening Remarks

Jeff Lyash
President and CEO

May 11, 2022



Strategic Intent and Guiding Principles



Energy Efficiency



Energy Burden



Sustainability Report



Opening Remarks

Jeff Lyash
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Audit, Finance, Risk, and Cybersecurity Committee

A.D. Frazier, Chair

Financial Update

John Thomas
Executive Vice President
Financial Services

May 11, 2022

Q2 Fiscal Year 2022

Net Income of \$220M was \$71M favorable to budget

Base Revenue of \$3.7B was \$47M favorable to budget

Total Financing Obligations (TFO) were \$296M favorable to budget

Q2 Summary Income Statement

\$ million	FYTD22			FYTD21	
	Actual	Budget	Variance Fav/(Unfav)	Actual	'22 v '21 Fav/(Unfav)
Base Revenue	\$ 3,691	\$ 3,644	\$ 47	\$ 3,653	\$ 38
Fuel Revenue*	1,695	1,285	410	1,150	545
Other Revenue	81	66	15	73	8
Total Operating Revenue	\$ 5,467	\$ 4,995	\$ 472	\$ 4,876	\$ 591
Fuel & Purchased Power	1,767	1,379	(388)	1,213	(554)
Total O&M	1,547	1,525	(22)	1,359	(188)
Taxes, Depreciation, Other	1,406	1,399	(7)	1,107	(299)
Interest	527	543	16	557	30
Net Income (Loss)	\$ 220	\$ 149	\$ 71	\$ 640	\$ (420)

* Includes off-system sales

Q2 Summary Cash Flow Statement

\$ million

Net Cash Provided by / (Used in)

	FYTD22			FYTD21	
	Actual	Budget	Variance	Actual	'22 v '21
Operating Activities	\$ 1,459	\$ 1,403	\$ 56	\$ 1,570	\$ (111)
Investing Activities	(1,290)	(1,400)	110	(1,092)	(198)
Financing Activities	(166)	(3)	(163)	(480)	314
Net Change in Cash	\$ 3	\$ -	\$ 3	\$ (2)	\$ 5

Beginning Total Financing Obligations	\$ 20,543	\$ 20,660	\$ 117	\$ 21,421	\$ 878
Change in Debt and Financing Obligations	(145)	34	179	(474)	(329)
Ending Total Financing Obligations	\$ 20,398	\$ 20,694	\$ 296	\$ 20,947	\$ 549

Q2 Summary

Higher sales primarily due to economic growth

Diverse power system helping to offset rising energy prices

Customers benefiting from Pandemic Recovery Credit

Continuing to benefit from lower debt

Audit, Finance, Risk, and Cybersecurity Committee

A.D. Frazier, Chair

Operations and Nuclear Oversight Committee

Jeff Smith, Chair

External Stakeholders and Regulation Committee

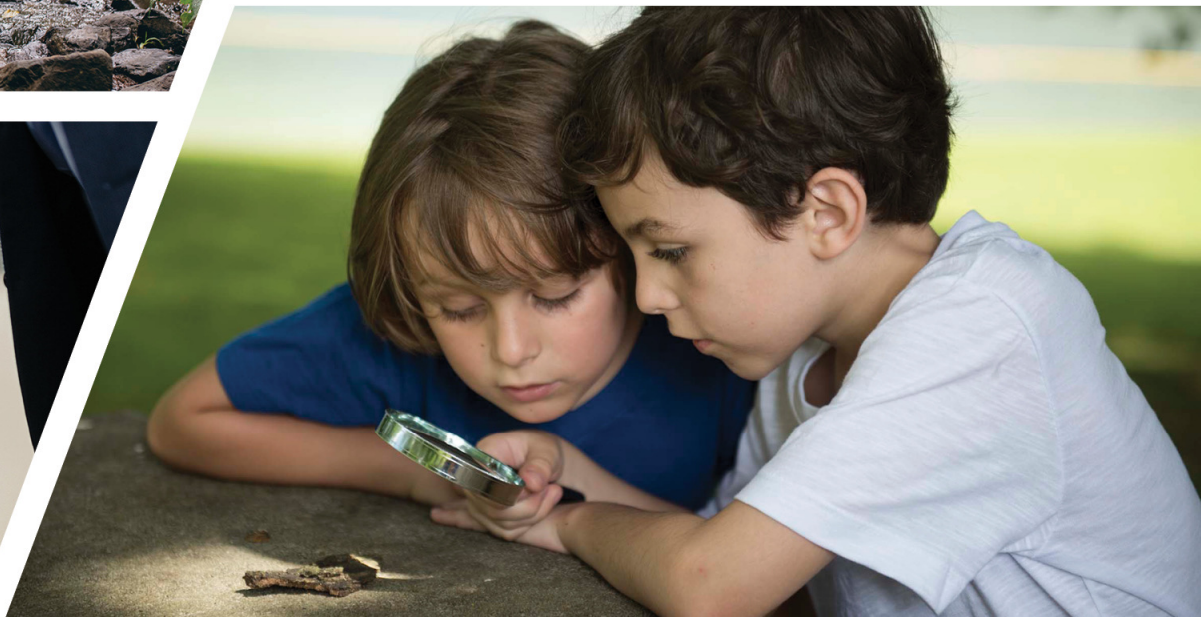
Beth Harwell, Chair

TVA Sustainability

Today. Tomorrow. Together.

Rebecca Tolene
Vice President and Chief Sustainability Officer

May 11, 2022



Clean Energy System of the Future

TVA's clear mission of service to the Valley provides us a business advantage. Our purpose inspires one of the best workforces in the country and positions us as partners with customers and stakeholders.



For Illustrative Purposes Only



Economic Impact

Partnering to Build the Region's Clean Energy Economy



TVA's public power model takes into account a broad view of the needs of people, which is the core of a sustainable company. TVA reinvests back into the Valley's infrastructure, environment and people.

Environment

Stewarding the Region's Resources

The Tennessee Valley and surrounding regions are some of the most biodiverse areas across the nation. TVA has a critical role in ensuring our environment and natural resources remain well protected and available for many generations – and we take this responsibility seriously.



Social

Serving People and Communities Across the Region



Serving the region's communities is an important part of our mission of service.



Governance

Driving Progress Through Governance and Accountability



Our governance structure is critical to driving sustainability performance.

Sustainability Pillars

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



TVA Sustainability

Today. Tomorrow. Together.

External Stakeholders and Regulation Committee

Beth Harwell, Chair

People and Governance Committee

Brian Noland, Chair



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Energy Burden

Tom Rice
Vice President
Financial Operations & Performance

May 11, 2022

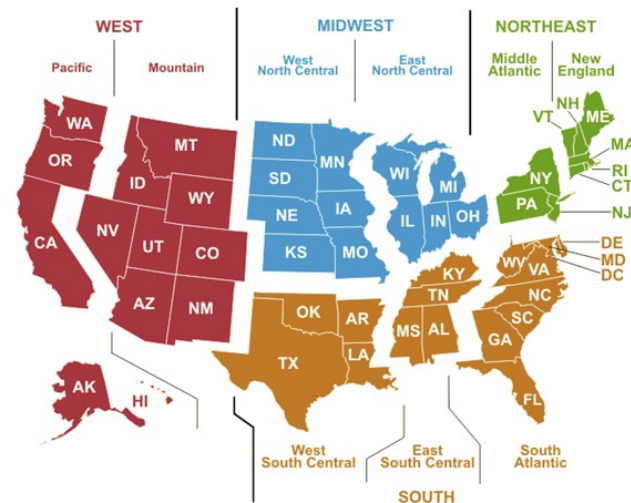
Energy Burden

Energy burden is the percentage of total household income spent on electricity and heating fuels.

- Burden is considered “high” when a household pays 6% or more of its income on energy bills, and “severe” when a household pays 10% or more of its income on energy bills

Compared to other census regions, East South Central has the highest percentage of households with a high energy burden.

- Nearly seven million people in the region experience high energy burdens; 78% of these households are low-income



Source: American Housing Survey 2017, U.S. Census 2020

TVA Restricted Information - Deliberative and Pre-Decisional Privileged

Drivers of Energy Burden

Income

Income is the single greatest driver of energy burden

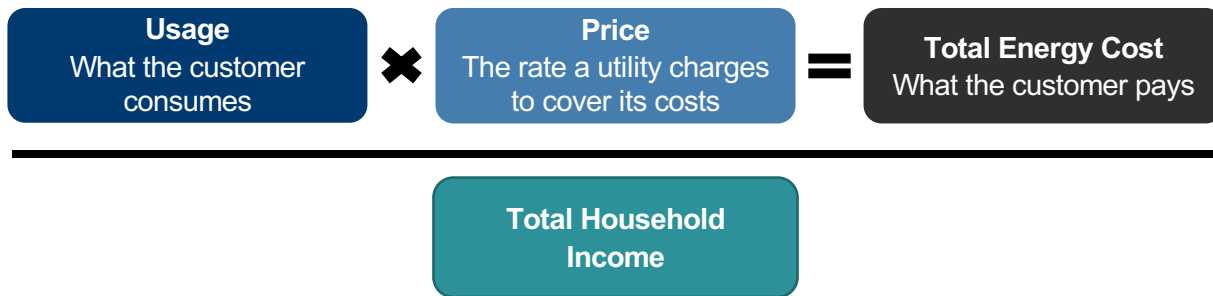
Energy Usage

Home energy consumption is driven by:

- Housing
- Level of Electrification
- Weather

Residential Energy Rate

TVA has the most control over the residential energy rate

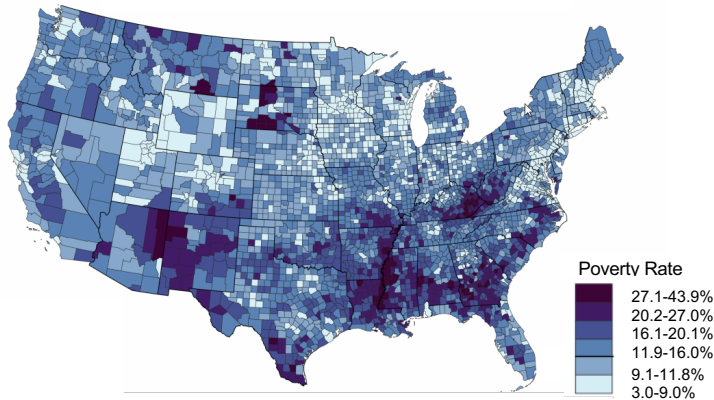


Income

Low incomes and high poverty levels in East South Central drive high energy burdens

- The region has the highest poverty rate in the U.S., with nearly 2.8 million people living at or below the poverty threshold
- The region's states rank in the bottom 10 for median income

Poverty Rate by County, 2020



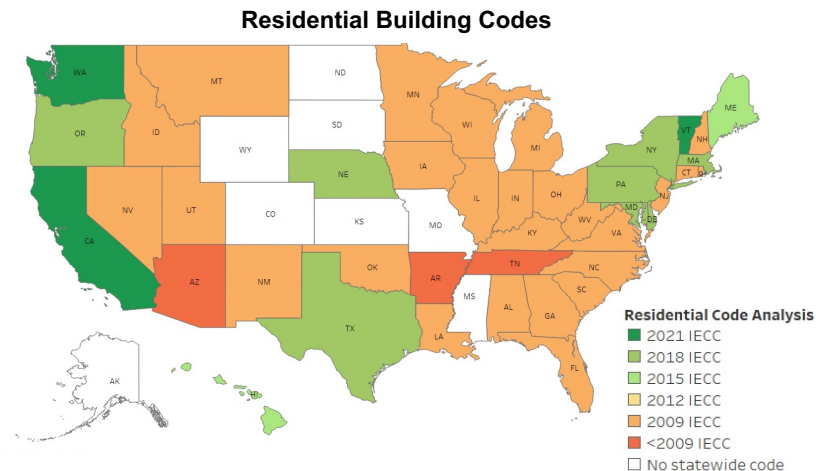
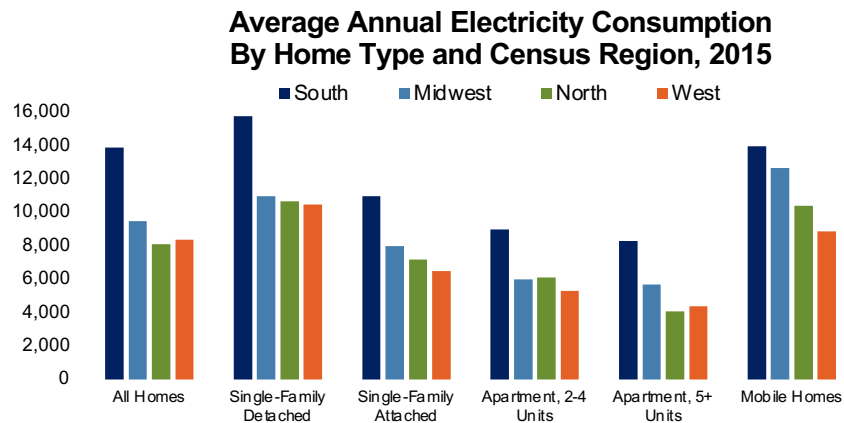
Source: U.S. Census 2020

State	Median Income, 2020	Income Rank Among U.S. States	Poverty Rate, 2020
Mississippi	\$44,966	50	18.4%
Alabama	\$54,393	44	13.9%
Tennessee	\$54,665	43	13.1%
Kentucky	\$56,525	41	13.8%
United States	\$67,521	-	11.0%

Energy Usage: Housing

Housing units in the South consume more electricity than those in other regions, driven by lagging building codes, electrification, and weather

East South Central has the highest concentration of mobile homes in the country (11%) and the lowest percentage of multi-family units (18%)

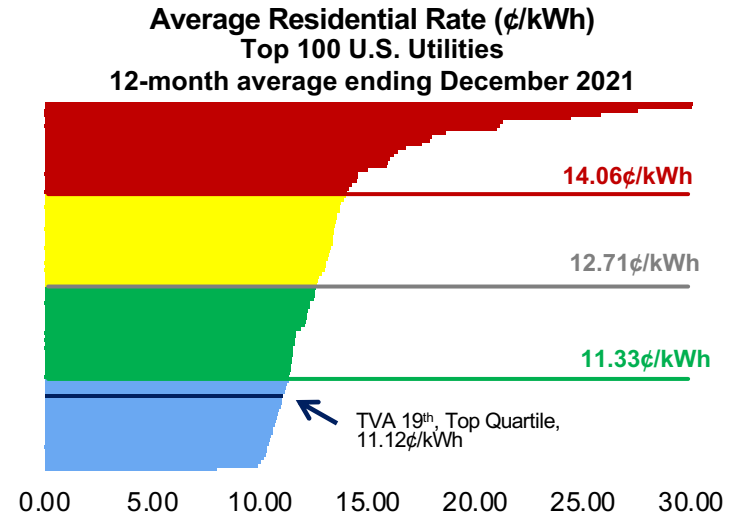
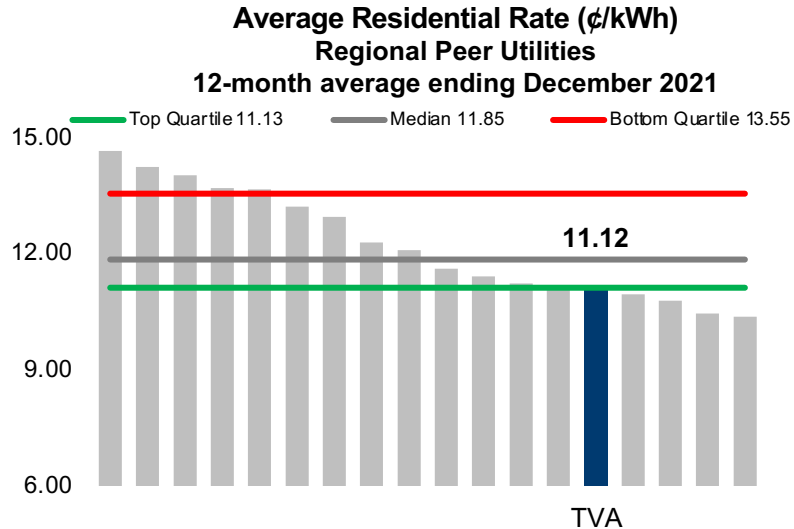


Source: 2015 Residential Energy Consumption Survey, American Housing Survey 2019, Office of Renewable Energy & Energy Efficiency

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Residential Energy Rate

TVA's average residential rate is top quartile compared to regional peer utilities and the 100 largest U.S. utilities, helping to keep energy bills low



Source: Energy Information Administration EIA-861M, ESS

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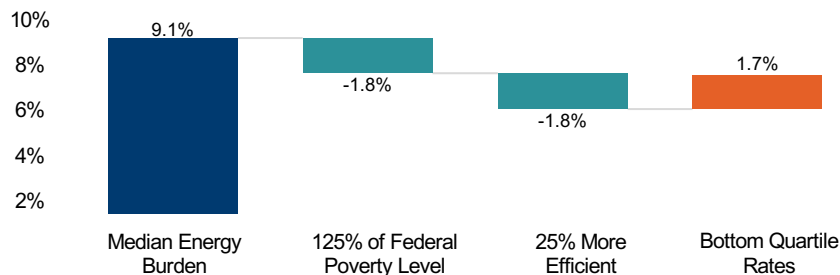
Closing the Gap for Low-income Households

Cumulatively, increases in income and decreases in home energy usage can significantly decrease low-income energy burden

Changes in income have the largest impact on energy burden for the lowest-income households

An increase in rates would worsen energy burdens

Low-Income Energy Burden East South Central



	Usage 25% ▼	Lowest Rates ▼	No Rate or Usage Change	Highest Rates ▲	Usage 25% ▲
Income Level					
50% FPL	14.2%	14.2%	18.3%	21.9%	22.4%
75% FPL	9.4%	9.5%	12.2%	14.6%	14.9%
100% FPL	7.1%	7.1%	9.1%	11.0%	11.2%
125% FPL	5.7%	5.7%	7.3%	8.8%	8.7%
150% FPL	4.7%	4.7%	6.1%	7.3%	7.5%
175% FPL	4.0%	4.1%	5.2%	6.3%	6.4%
200% FPL	3.5%	3.5%	4.6%	5.5%	5.6%

Source: American Housing Survey 2017

TVA Restricted Information - Deliberative and Pre-Decisional Privileged

Key Takeaways

Income is the most powerful lever to improve energy burden for the lowest-income households

Actions taken by lawmakers would further improve long-term housing efficiency

Targeted energy efficiency efforts can assist households with high energy burdens

TVA's low rates provide an important counterbalance to the region's relatively high energy usage

TVA's Energy Burden Strategy Efforts

Doug Perry
Senior Vice President
Commercial Energy Solutions

Valley-wide Energy Efficiency

TVA's Energy Services and Programs have historically served residential, business, and industrial market sectors through

- Energy upgrade incentives and financing
- Energy management consultation and advice
- Contractor networks



School uplift: 54 schools

\$5M invested by TVA; \$1.2M matched

Schools averaged 13% annual energy savings

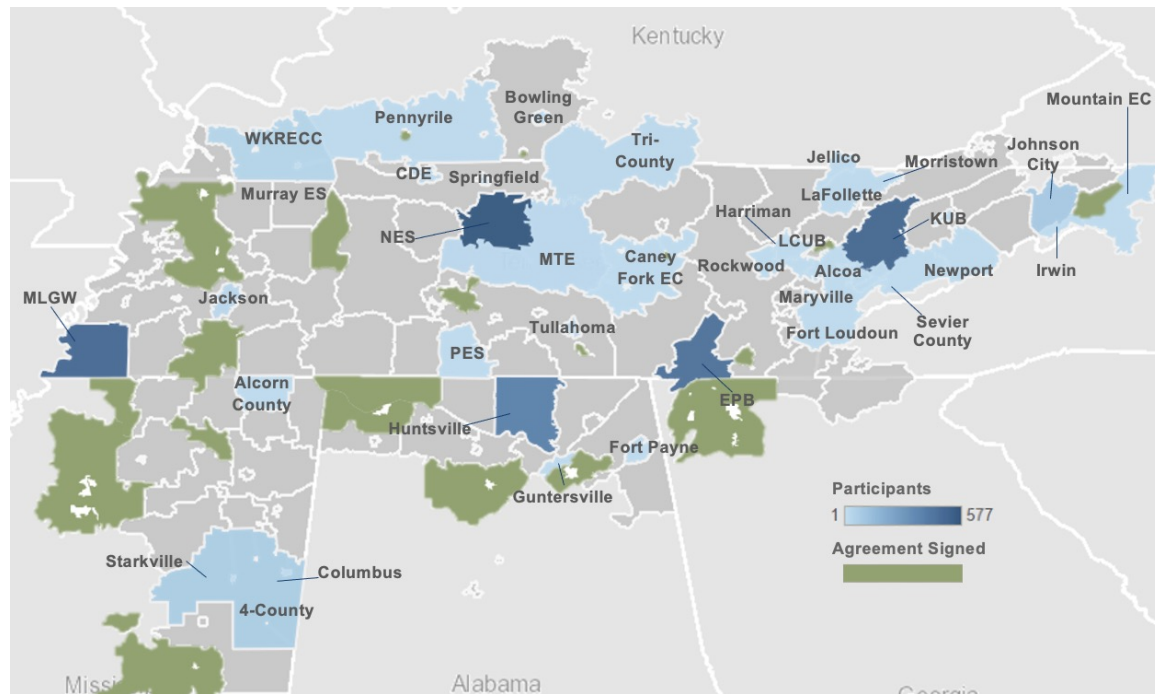
School Uplift Video

A Focus on Underserved Communities



Since 2018, TVA has invested **\$50 million** to help our neighbors and community members reduce their energy burdens.

What We Are Doing – Home Uplift



Over **\$40 million**
invested by TVA and
our partners,
impacting **3,700**
homes

Our Goal

Over the next five years, we plan to **reduce energy expenses** in underserved communities by **\$200 million**.

For residential customers who participate in our programs, that is an average of **\$500 a year** in bill savings.



Home Uplift Video



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President's Report

Jeff Lyash
President and CEO

May 11, 2022

Strategic Intent and Guiding Principles



Guiding Principles

01

Prioritize the needs of Valley stakeholders as we work to achieve our goals by maintaining low rates and high reliability, and stimulating new jobs in the Valley.

02

Use best-available science and support research and policies that further carbon-free dispatchable technologies.

03

Partner with our long-term local power company customers and other customers and communities to support economy-wide decarbonization efforts and the strategic electrification of other sectors, such as transportation.

04

Maintain nuclear generation, hydro generation and a robust, reliable transmission grid as key enabling assets.

05

Be transparent with stakeholders in measuring and sharing our progress, and listen and work effectively with all our stakeholders to understand their priorities and needs.

06

Adapt to new technologies and changing policies, and be willing and open to change our plans and projects to achieve deep carbon reduction.

Commitments

Serving Valley communities

Continued investments in our clean, diverse portfolio

Being a leader in innovation and decarbonization solutions

Inclusion with diversity

Being a leader in low-carbon energy

Financial strength and stability

Carbon Reduction Leadership

TVA is a national leader in carbon reduction

70%

Plan by 2030

~80%

Path by 2035


Net-Zero

Aspiration by 2050





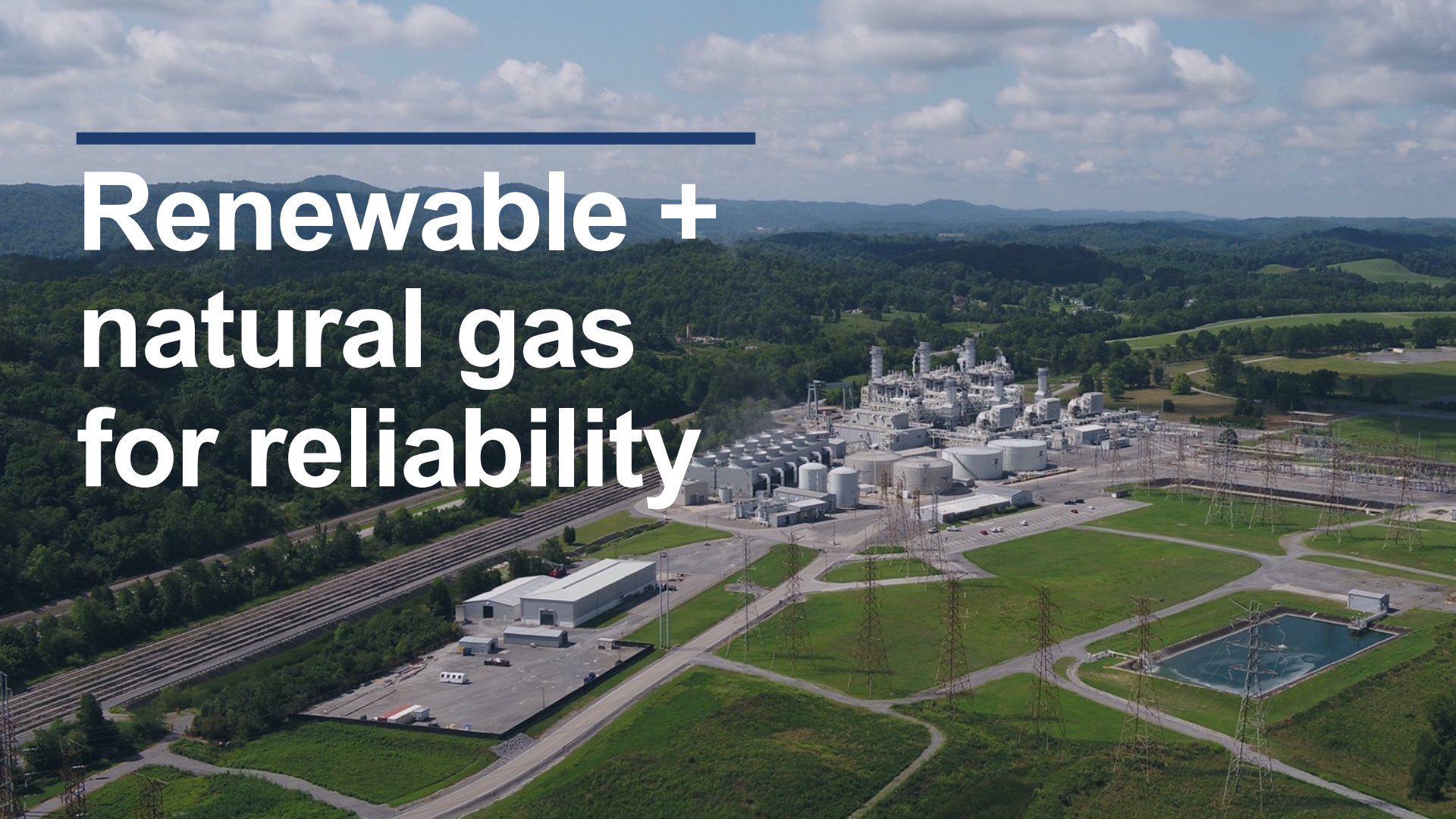
Solar Generation Expansion



Solar Generation Expansion

Targeting
10,000 MW
by 2035

Renewable + natural gas for reliability



Signature Transformative Innovation Initiatives



An aerial photograph of a landscape featuring a winding river, green fields, and some buildings. The image is used as a background for the text.

Advanced Nuclear

Accelerate progress toward our aspiration of net-zero carbon

Designed to develop, deploy and safely and economically operate viable advanced nuclear reactors

Develop a roadmap for our exploration of advanced nuclear technologies

Electric Vehicles



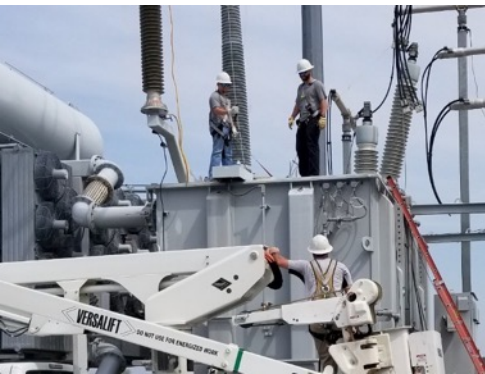
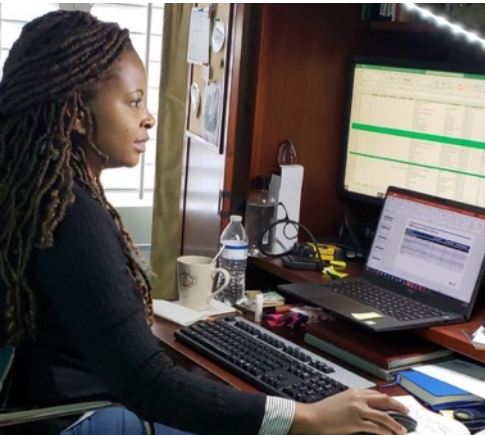
200,000

Electric Vehicles
in the Valley by 2028

\$1,000 Annual Fuel Savings

\$200 Million Consumer Savings

**Saving Almost 1 Million Metric
Tons of Carbon Each Year**



President's Report

Jeff Lyash
President and CEO

May 11, 2022



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TENNESSEE
VALLEY
AUTHORITY