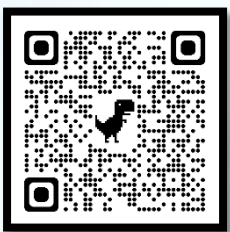




Leadership Clarksville Energy Project 2023

Energy Innovation in Clarksville-Montgomery County

Businesses and organizations can dramatically reduce their carbon footprint by drawing electricity from clean, renewable sources. Renewable power technologies commonly include solar, wind, biogas, geothermal, low-impact, hydroelectricity, and other emerging technologies such as wave and tidal power.



Energy Innovation

Explore energy innovation opportunities in Clarksville-

Energy Options

What energy options are most viable as we move



Energy Impacts

What are some possible paths forward, and what is the impact on environmental stewardship and the economy?

The average Clarksville "household" consumes around 1500 kWh (kilo-watt hours) per month.

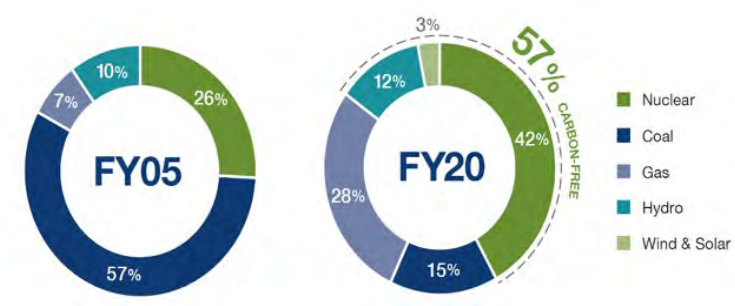
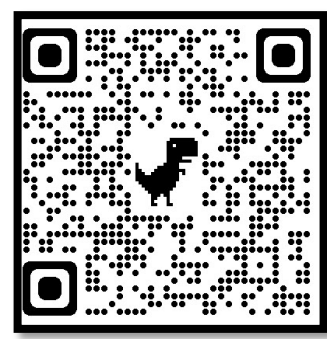
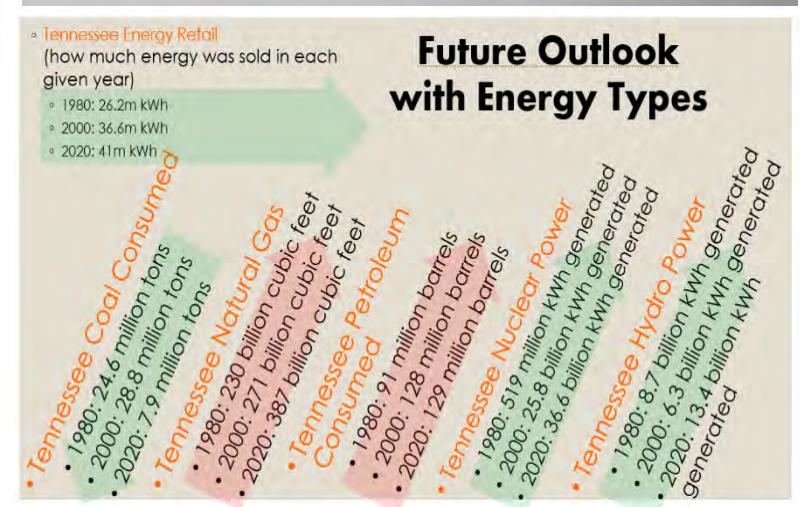
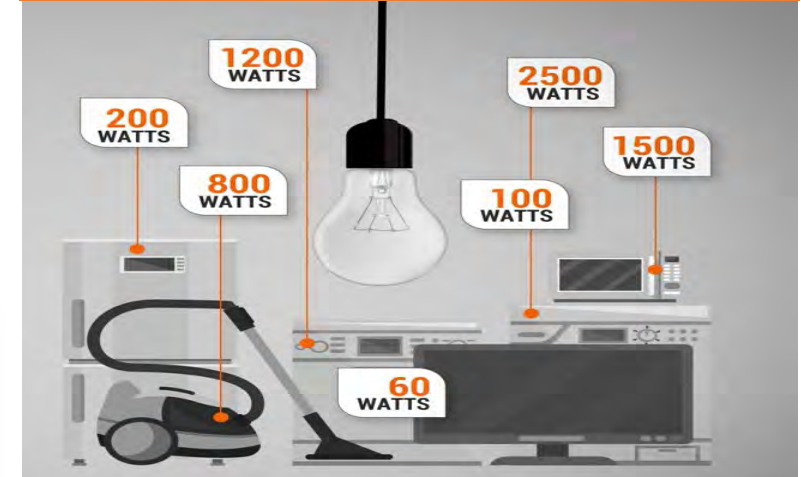
Watts*Time(hours))/1000=kWh

Metric used by your power company to determine your consumption/bill.

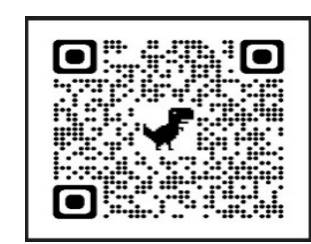
- The avg. Clarksville "household" spends \$186 per month on electricity.
- The avg. Clarksville "household" consumes over 18,500 kWh per year.
- Montgomery County consumed over 3.2 billion kWh but produced less than 12 million kWh in 2022.
- Montgomery County produced over 2.2 billion pounds of carbon emissions in 2022. (That's the equivalent weight of over 600,000 sedans)



Common Appliance Wattage



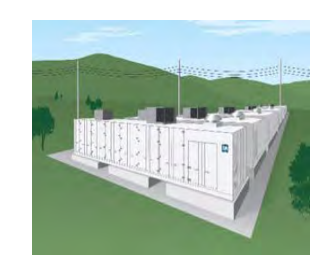
QR Code: TVA Innovation



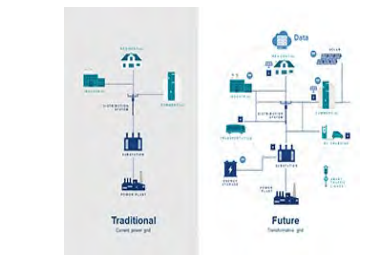
Electric Vehicle Evolution



Storage Integration



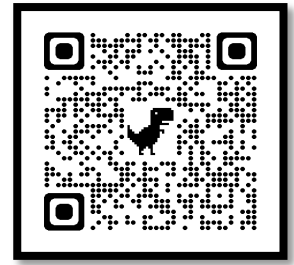
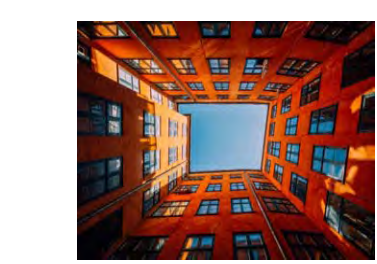
Regional Grid Transformation



Advanced Nuclear



Connected Communities



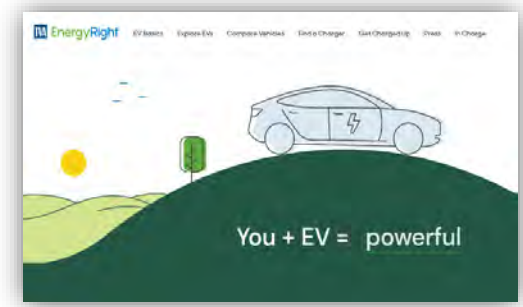
Business & Industry Energy Needs

- Carbon Reduction
- Energy Education
- Preferred Partners Network
- Get energy-saving business incentives

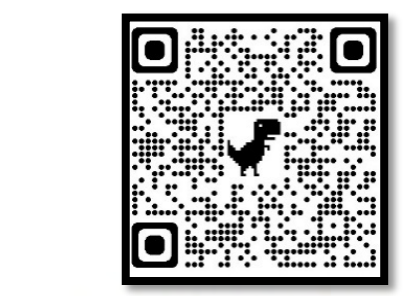
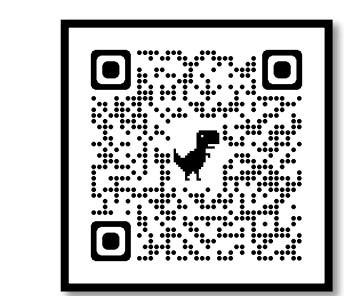
Residential Energy Needs

- Home Energy Evaluations & Inspections
- Free Home Energy Workshop
- Utility Bill Assistance
- Finance home energy upgrades

Electric Vehicles

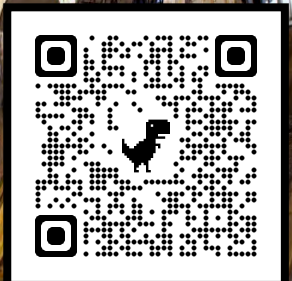
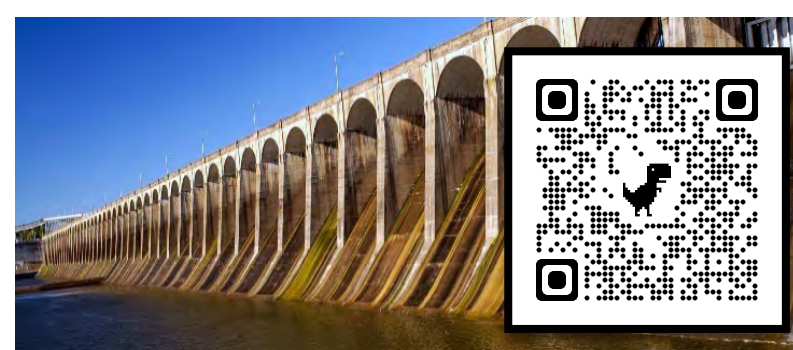


EV batteries * Maintenance * Compare Vehicles * Explore EVs * Resources



- ELECTRICITY
- ENVIRONMENT
- RUNNING THE RIVER
- THE RIVER
- HISTORY
- WHAT IS TVA?
- HOMEWORK HELPERS

- Services
- Education & Advice
- Workshops
- Energy Bill Assistance



Hydroelectric power is the cleanest, most reliable, most efficient, and most economical of all renewable energy sources. And thanks to the Tennessee River system, we have plenty of it in our region. It supports our mission of providing clean, reliable, and affordable electricity to the people and businesses of the Tennessee Valley.

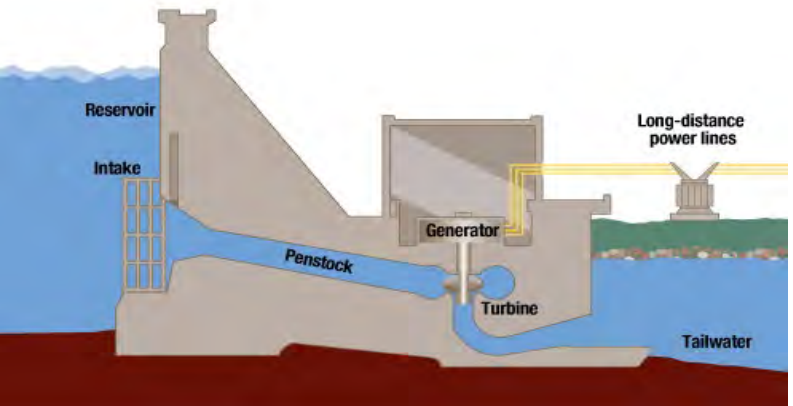
TVA's hydroelectric system comprises:

- 29 power-generating dams throughout the Tennessee River system, some of which date back to the TVA's early days in the 1930s
- A pumped-storage plant near Chattanooga called Raccoon Mountain
- Purchased power from eight dams on the Cumberland River operated by the Army Corps of Engineers

These dams are located on the Tennessee Rivers system, which includes a number of feeder rivers, including the Holston, the Clinch, the Ocoee, the Little Tennessee, the Hiwassee, the Elk, the Duck, the Nolichucky, the Nottely, the Nantahala, the French Broad, the Pigeon, the Cheoah, the Powell and the Cumberland among others.

Hydroelectric Power Work?

A conventional dam holds water in a man-made lake, or reservoir, behind it. When water is released through the dam, it spins a turbine connected to a generator that produces electricity. The water returns to the river on the downstream side of the dam.



Cumberland Fossil Plant



- The Tennessee Valley Authority is replacing its Cumberland Fossil Plant near Clarksville with a natural gas facility.



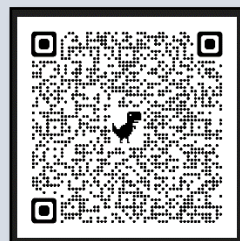
- TVA is moving forward with a plan to retire and demolish its high-pollutant two-unit, coal-fired Cumberland Fossil Plant and replace it with a natural gas-fueled combined cycle combustion turbine.



- The transition will cut carbon emissions from the facility by up to 60 percent, TVA said.



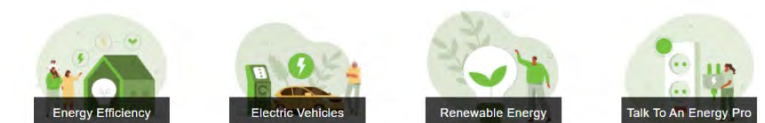
Nyrstar plans expansion of the Clarksville plant with a new \$90 million germanium, gallium processing facility.



According to the resolution submitted to the Montgomery County Commission in support of the facility, germanium, and gallium are used in the production of 5G mobile devices, solar panels, electric vehicles, wind turbines, and more.



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Solar Farm: Silicon Ranch & CDE



LG Chem



LG Chem to build \$3.2 billion plant in Clarksville to supply material for EV batteries.

