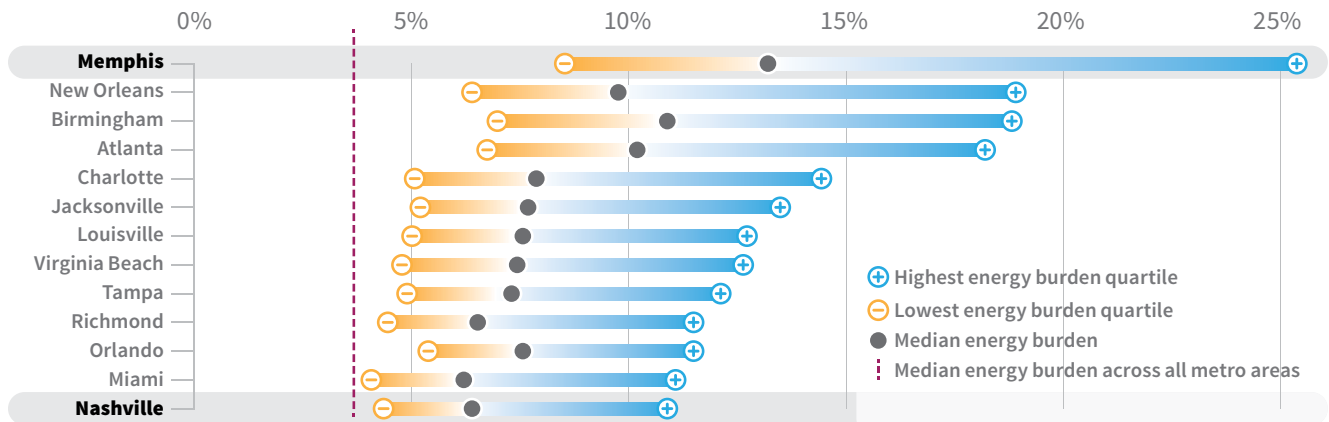


How energy efficiency can help low-income households in Tennessee

Low-income Tennesseans face high energy burdens, meaning that an outsized portion of their income goes towards home energy bills, including electricity, natural gas, and other heating fuels. This is despite their having some of the lowest energy rates in the United States. While investments in energy efficiency will benefit utilities and communities throughout Tennessee, low-income and rural residents will see particular benefits since they tend to live in less energy-efficient housing. Research suggests that for both single- and multifamily low-income households, energy efficiency can eliminate up to 35% of their excess energy burden.¹



Quartile Energy Burdens of Low-Income Households in Southeastern Cities



Low-income households in Memphis face one of the highest energy burdens in the country. Half the low-income households in Memphis have an energy burden greater than 13.2%, and a quarter of them, over 25.5%. In addition, half of households in Nashville face an energy burden greater than 6.4%, and a quarter of them, over 10.9%. The national average is 3.5%.

Benefits of Energy Efficiency

Residents, communities, and utilities across the country have much to gain from energy efficiency. The state of Tennessee and the utilities that serve Tennesseans could deliver these benefits to those most in need by expanding policies, programs, and investments in efficiency.

- 
LOWER MONTHLY BILLS.
 More disposable income, reduced stress, more money spent in the local economy.
- 
LESS POWER USED.
 Reduced environmental pollutants, avoided investment in generation, capacity, and transmission.
- 
IMPROVED HOUSING.
 Safer and more comfortable homes, increased housing satisfaction, lower maintenance costs.
- 
IMPROVED PUBLIC HEALTH.
 Reduced pollution from power plants, improved indoor air quality and occupant health, lower healthcare costs.²
- 
LOCAL ECONOMIC DEVELOPMENT.
 More local jobs, improved quality of life, increased property values.

Tennessee low-income energy efficiency programs

In 2015, utilities across Tennessee reported spending \$5.5 million on low-income electric efficiency programs outside of state and federal weatherization assistance and Low-Income Home Energy Assistance Program (LIHEAP) funds.⁴ As part of its Extreme Energy Makeover program, the Tennessee Valley Authority (TVA) spent almost \$19 million on low-income energy efficiency efforts in Tennessee in 2016, saving over 10 million kWh. However, this program ran through early 2017 and future low-income funding is uncertain. In two recent surveys of large utilities, ACEEE found that, per residential customer, utilities across the Southeast spend slightly less on low-income energy efficiency programs than utilities in other parts of the country. They also save less energy per residential customer.⁵ Utilities can maximize energy savings and other benefits for every household by increasing low-income energy efficiency spending and delivering more targeted, comprehensive programs.

Tennessee utility low income energy efficiency programs (2015 data)

Electric utility	Spending per residential customer (\$)	Savings per residential customer (kWh)
Memphis Light, Gas and Water	\$0.92	0.00
Nashville Electric Service	\$0.00	0.00
Southeast Median	\$2.45	2.83
National Median	\$2.58	2.86

Note: TVA ran a temporary program from 2015 through 2017.

Jobs

Over 50,400 Tennessee residents already work on products and projects that cut energy waste. Energy efficiency creates local jobs in the manufacture, sale, and installation of efficiency measures.³

Strategies to reduce the energy burden in Tennessee

Southeastern states have many options for reducing energy costs for low-income households. The following are a few best practices that Tennessee can use, especially as it considers establishing policies and rules to govern utility investments in energy efficiency programs throughout the state.

- 1 Enact policies to encourage or require energy efficiency investments in low-income households.** State legislatures and public service commissions can pass legislation, enact regulations, and/or issue commission orders that set spending or savings requirements for utility low-income energy efficiency programs. State housing finance agencies can allocate low-income housing tax credits with preference to projects that incorporate energy efficiency measures.
- 2 Establish guidelines for treating low-income energy efficiency programs in cost-effectiveness tests.** States can exempt low-income programs from cost-effectiveness requirements or establish cost-effectiveness frameworks that capture the range of nonenergy benefits delivered by these programs (e.g., health, safety, air quality improvements).
- 3 Coordinate ratepayer-funded energy efficiency efforts with other statewide and local weatherization programs.** Utilities can partner with community action agencies or other weatherization providers to coordinate resources, offer additional energy conservation measures, and address health and safety deficiencies in participants' homes.
- 4 Convene a group of state, local, and utility stakeholders to focus on low-income energy efficiency.** State and local officials, utility representatives, advocates, and members of the low-income housing community can work together on efforts to serve low-income households.
- 5 Design energy efficiency programs to reach both owners and renters.** Use a portfolio approach to offer a range of energy efficiency measures and services that are accessible to both renters and owners.
- 6 Deliver dual fuel or fuel-blind programs to address electric and natural gas use simultaneously.** Individual utilities can offer programs that address both end uses, or electric and gas utilities can coordinate programs and funding streams. These approaches decrease program labor and delivery costs and make it easier for customers to enroll.

Notes

1 aceee.org/research-report/u1602.

2 aceee.org/fact-sheet/ee-and-health, betterbuildingsolutioncenter.energy.gov/sites/default/files/attachments/Home%20Rx%20The%20Health%20Benefits%20of%20Home%20Performance%20-%20A%20Review%20of%20the%20Current%20Evidence.pdf.

3 energy.gov/downloads/2017-us-energy-and-employment-report.

4 www.cee1.org/annual-industry-reports.

5 Utility-specific low-income spending and savings data came from the following reports: aceee.org/research-report/u1707; aceee.org/white-paper/low-income-ee-baseline; seealliance.org/wp-content/uploads/Low-Income-Landscape-Assessment-FINAL.pdf. For the utilities included in this last study, we calculated total low-income program spending and savings amounts from data collected by SEEA. We pulled residential customer counts for these utilities from the EIA 861 dataset at www.eia.gov/electricity/data/eia861/.