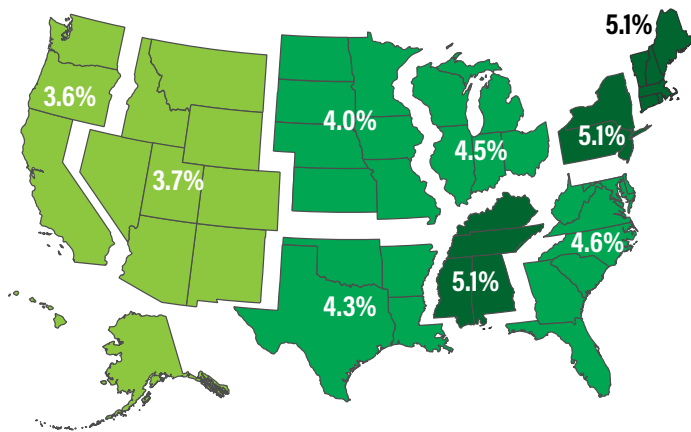


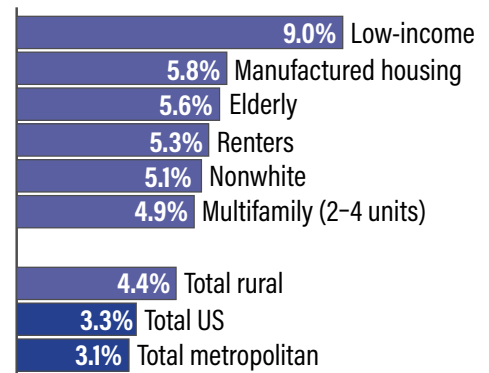
## Alleviating Rural Energy Burdens through Energy Efficiency

Rural households across the country face high energy burdens, meaning they spend an outsized portion of their income on home energy bills. A recent ACEEE study found that rural households spend 40% more than their metropolitan counterparts on their energy bills, with the highest burdens placed on those in the northeast and southeast regions.<sup>1</sup> This problem is magnified for low-income households, which are more common rural areas.<sup>2</sup> Rural low-income households have energy burdens almost three times higher than rural non-low-income households. Manufactured housing residents, elderly, renters, nonwhite, and multifamily households also experience higher burdens than the rural average. A variety of factors drive household energy burdens, including inefficient housing and appliances, lower household incomes, and a lack of access to programs for bill assistance, weatherization, and energy efficiency.

Rural energy burden by region



by demographic\*



\*Based on national figures.  
Energy burden: percent of income spent on energy bills

### The role of energy efficiency and weatherization

Energy efficiency upgrades can improve the efficiency of rural housing stock and reduce rural household energy burdens by as much as 25%, which can result in more than \$400 in annual energy bill savings for some households.<sup>3</sup> Driving investment in these programs requires focused effort by policymakers, utilities, and community organizations. Below are recommendations for improving and expanding the reach of rural energy efficiency programs.<sup>4</sup>

- **State energy offices, utilities, community action agencies, and other weatherization providers can increase energy efficiency and weatherization spending in rural communities.**

The Colorado Energy Office, Delta Montrose Electric Association (DMEA), and Housing Resources of Western Colorado partner to provide low-income DEMA members with free weatherization services. Eligible members receive a comprehensive energy audit on their home to determine their efficiency needs.<sup>5</sup>

- **Investor-owned utilities (IOUs), municipal utilities (munis), and electric cooperatives (co-ops) can offer low-cost financing options, such as on-bill tariff programs, to help rural households overcome credit barriers and afford efficiency upgrades.**

Fleming-Mason Energy Cooperative in Kentucky partnered with the Mountain Association for Community Economic Development (MACED) on How\$martKY, a tariffed on-bill energy efficiency program. To qualify



MACED Residential Energy Specialist Rachel Norton performs a blower door test on an Eastern Kentucky home. Source: Rachel Norton.

customers, MACED uses utility bill payment history rather than credit checks. More than half of the retrofits from the program have been undertaken by low- and moderate-income households, and almost a quarter by manufactured housing residents.<sup>6</sup>

**Co-ops can maximize the impact of efficiency programs by pairing them with broadband or renewable energy upgrades.**

Co-Mo Electric Cooperative, Inc. in Missouri was one of the first electric co-ops to integrate high-speed Internet into their portfolio of energy services. They offered fiber-to-the-home service to each of their members, then launched SmartHub and Take Control & Save – online platforms through which members can monitor energy use, find discounted energy audits, and identify rebates for efficient appliances.<sup>7</sup>

**Utilities, state energy offices, statewide efficiency program administrators, and energy service providers can partner and pool program resources among multiple organizations serving rural or low-income customers.**

Through the Clean Energy Resource Teams (CERTs) program, the University of Minnesota Extension Regional Sustainable Development Partnerships works with the Great Plains Institute, the Southwest Regional Development Commission, and the Minnesota Department of Commerce to identify, finance, and implement efficiency projects in homes, businesses, and local institutions.<sup>8</sup>

**Generation and transmission (G&T) co-ops, co-op associations, and muni associations can hire dedicated staff members to deliver energy efficiency programs on behalf of or in partnership with their members.**

The Southern Minnesota Municipal Power Agency (SMMPA) is a nonprofit joint-action agency that provides wholesale electricity and related services to 18 municipal utility members in the state. SMMPA has three energy services representatives (ESRs) that work closely with 15 of their member utilities that provide power to relatively small communities, offering the utilities energy efficiency program design, development, and marketing services.<sup>9</sup>

**Munis, co-ops, state energy offices, and other nonregulated efficiency program implementers can test program strategies through pilot programs and conduct more rigorous, third-party evaluations to improve delivery and deepen customer benefits.**

Cooperative Energy, a G&T co-op in Mississippi, worked with Advanced Energy (AE) to develop a two-year Residential Retrofit Pilot Study examining the impact of three types of retrofit measures. The goal of the program was to ensure high levels of customer service, good communication, and customer satisfaction with the program. The pilot study provided insight into cost-effective ways to save energy and helped Cooperative Energy make an informed decision about rolling out full-scale energy efficiency programs in the future.<sup>10</sup>

## Endnotes

- 1 Lauren Ross, A., Dreihobl, and B. Stickles. 2018. The High Cost of Energy in Rural America: Household Energy Burdens and Opportunities for Energy Efficiency. Washington, DC: ACEEE. [aceee.org/research-report/u1806](https://www.aceee.org/research-report/u1806).
- 2 US Census Bureau. 2017. "2015 American Housing Survey." [www.census.gov/programs-surveys/ahs.html](http://www.census.gov/programs-surveys/ahs.html).
- 3 Lauren Ross, A., Dreihobl, and B. Stickles. 2018. The High Cost of Energy in Rural America: Household Energy Burdens and Opportunities for Energy Efficiency. Washington, DC: ACEEE. [aceee.org/research-report/u1806](https://www.aceee.org/research-report/u1806).
- 4 Mary Shoemaker, A. Gilileo, and J. Ferguson. 2018. Reaching Rural Communities with Energy Efficiency Programs. Washington, DC: ACEEE. [aceee.org/research-report/u1807](https://www.aceee.org/research-report/u1807).
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- 6 V. Rocha. 2017. "How \$mart is Energy Efficiency?" [www.electric.coop/kentucky-energy-efficiency-how-smart-cooperatives/](http://www.electric.coop/kentucky-energy-efficiency-how-smart-cooperatives/).
- 7 [www.takecontrolandsave.coop](http://www.takecontrolandsave.coop).
- 8 [www.cleanenergyresourceteams.org/about-certs](http://www.cleanenergyresourceteams.org/about-certs).
- 9 John O'Neil, SMMPA
- 10 [www.advancedenergy.org/2016/12/07/cooperative-energy-residential-retrofit-study/](http://www.advancedenergy.org/2016/12/07/cooperative-energy-residential-retrofit-study/)



AJ Hagedorn, a lineman at Co-Mo Electric's subsidiary Co-Mo Connect, installs fiber along the right-of-way to deliver gigabit broadband-enabled energy efficiency to its members. Source: Co-Mo.