SCEP
STATE & COMMUNITY ENERGY PROGRAMS

Low-Income Energy Affordability Data (LEAD) Tool

State and local governments, utilities, non-profits, and stakeholders often lack easy access to data that helps inform decision making and increase knowledge of the area residents they serve. The Low-Income Energy Affordability Data (LEAD) Tool helps stakeholders make data-driven decisions on energy goals and program planning by improving their understanding of low-income and moderate-income household energy characteristics.

LEAD
LOW-INCOME ENERGY AFFORDABILITY DATA
TOOL
U.S. DEPARTMENT OF ENERGY

Explore the LEAD Tool here:

https://www.energy.gov/scep/slsc/lead-tool

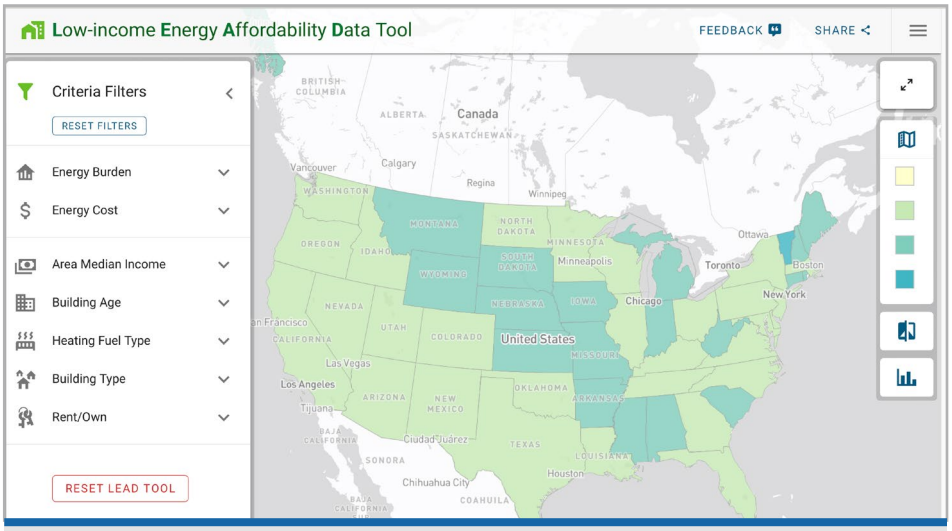

Illustration of LEAD Tool map for average energy burden (energy cost as a percentage of income) in the United States

What is the LEAD Tool?

The Low-income Energy Affordability Data (LEAD) Tool is an online, interactive platform that allows users to build their own national, state, county, city, or census tract profiles. LEAD provides estimated low-income household energy data based on income, energy expenditures, fuel type, and housing type. Users can create and save their own profile and make side-by-side comparisons with other geographies. Users can also download visuals and data associated with the following geographies, housing, and energy characteristics.

Geographic levels:

- 50 States plus D.C. and Puerto Rico
- Census Tract
- Census Tract with Disadvantaged Community Identifier
- City
- County
- National

Demographic data:

- Race
- Education Attainment

Cost of energy:

- Average annual energy expenditures
- Average energy burden as a percentage of income spent on energy

Number of occupied housing units and energy expenditures by:

- Tenure (homeowners or renters)
- Building year of first construction
- Building type (number of units in the building)
- Housing unit primary heating fuel type

Household characteristics:

- Area and State Median Income: 0-30%, 30-50%, 50-80%, 80-100%, 100+%
- Federal Poverty Level (FPL): 0-100%, 100-138%, 138%-200%, 200-400%, 400%+
- Race & Education Demographics

Features

The LEAD Tool offers the ability to select and combine geographic areas (state, county, city and census tract) into one customized group so users can see the total area for their customized geographies (e.g., specific service territories).

Where does the data come from?

LEAD Tool data comes primarily from the U.S. Census Bureau's American Community Survey 2020 Public Use Microdata Samples (5-Year Average, 2016-2020) and are calibrated to the U.S. Energy Information Administration's electric utility (Survey Form-861) and natural gas utility (Survey Form-176) data.

How should I use the LEAD Tool?

The LEAD Tool has been used by stakeholders to improve understanding of low-income and moderate-income characteristics in their locality, identify target areas, start new low-income programs, and use the information for outreach or educational purposes. The tool can also be used to inform strategic planning or to support independent research.

The LEAD Tool is not meant to be used as a substitute for program or policy evaluations, or to track the impact of a program or policy. It should not be used as a program manage-ment tool, and it will not provide information on year to year changes because it is based on five year running averages.

Share your questions, comments, and use cases with us: stateandlocal@hq.doe.gov.

What is Energy Burden?

Energy burden is defined as the percentage of gross household income spent on energy cost. Based on LEAD Tool data, the national average energy burden for low-income households is 8% — 8 times higher than for non-low income households.

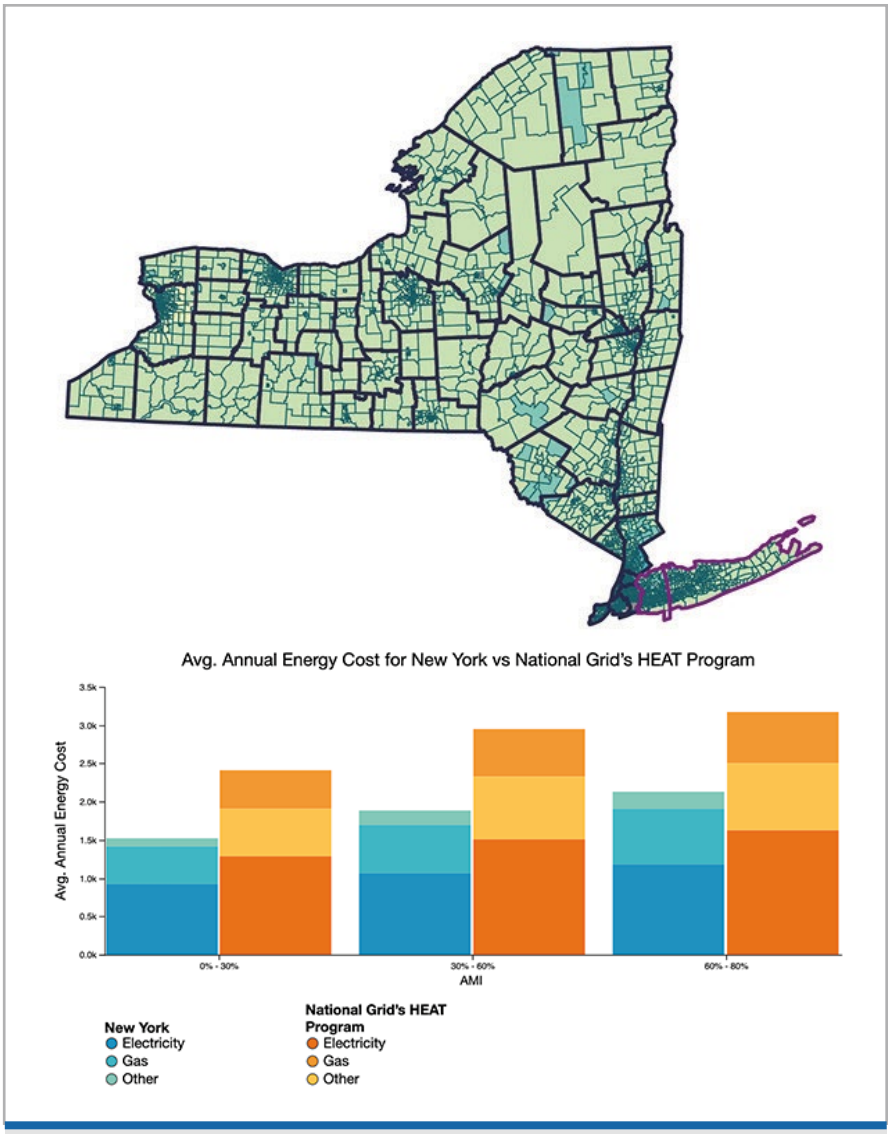

Illustration of LEAD Tool "combination" feature for National Grid's HEAT program in New York using 2020 LEAD tool data.

Other Resources

- Better Buildings Initiative's Clean Energy for Low Income Communities Accelerator (CELICA)
- Cities Leading through Energy Analysis and Planning (Cities-LEAP), City Energy: Data to Decisions Series
- Low-Income Household Energy Burden Resource Summary