Clean Energy for Low Income Communities Accelerator (CELICA) Overview

BETTER BUILDINGS ACCELERATORS

The Clean Energy for Low Income Communities Accelerator (CELICA) was a voluntary partnership between the U.S. Department of Energy (DOE) and state and local governments to lower energy bills for low-income communities. Partners worked to better understand and address low-income energy challenges, and to demonstrate a wide range of locally designed energy efficiency and distributed renewable energy solutions.

The Importance of Low-Income Energy Solutions

Low-income households suffer a disproportionate energy burden, with energy burden defined as the percentage of gross household income spent on energy costs. According to the U.S. Census (2011-2015), the national average energy burden for low-income households is over 8%—3 times higher than for non-low-income households. 47% of U.S. households, or about 50 million homes, are defined as low-income.

Introducing the Clean Energy for Low Income Communities Accelerator (CELICA) Toolkit

Based on experience and partner needs identified in CELICA, a toolkit was developed. Specific tools to address barriers in several key areas are grouped by whether they are related to *program development activities* or *program models*.

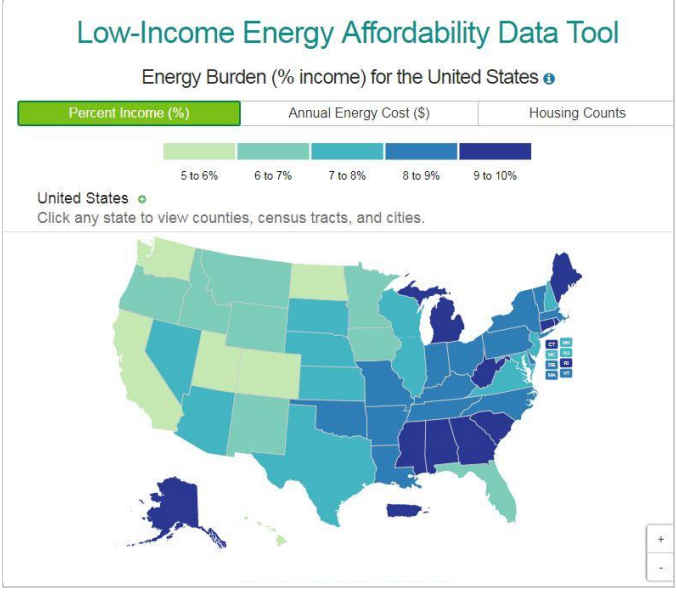
LEAD Tool

The Low-income Energy Affordability Data (LEAD) Tool is designed to help states, communities and other stakeholders create better energy strategies and programs by improving their understanding of low-income housing and energy characteristics.

The LEAD Tool provides interactive state, city, and county level graphs, and data, by household income level, including:

- ✓ Housing Characteristics
- ✓ Heating Fuel Type
- ✓ Average Annual Energy Expenditure
- ✓ Average Energy Burden

The LEAD Tool is based on 5-year averages from U.S. Census Bureau and DOE's Energy Information Administration data.



PROGRAM DEVELOPMENT ACTIVITIES

STAKEHOLDER ENGAGEMENT

▶ This section explains how stakeholder engagement can impact a low-income program throughout its lifecycle.

▶ It provides a **Stakeholder Overview** and a **Stakeholder Analysis Template** to help map potential stakeholders for the development of energy efficiency and renewable energy programs for low-income households.

▶ It features promising practice examples for **Bringing Together a Diverse Coalition of Stakeholders** and for **Engaging a Multi-Stakeholder Advisory Committee** for low-income energy programs. It also describes opportunities to partner with housing agencies to **Incorporate Energy Efficiency and Renewable Energy Standards**.

COMMUNITY ASSESSMENT AND BARRIERS ANALYSIS

▶ This section features guiding questions for assessing low-income community energy needs and gaps.

▶ The **Low-income Energy Affordability Data (LEAD) Tool** provides a way to visualize and benchmark low-income community energy issues.

ACTION PLANNING

▶ This section provides guiding principles and key considerations for plannning low-income energy programs, and offers an **Action Planning Template** and **Guide** to create a targeted low-income energy efficiency and renewable energy program.

▶ It provides **CELICA Action Plan Examples** from Illinois, Colorado, Connecticut and Philadelphia.

METRICS AND INDICATORS

▶ This section provides a core set of metrics developed with CELICA partners.The **Issue Brief: Using Data-Driven Planning to Drive Low-Income Program Success** explains how three states have utilized metrics and indicators to set a baseline, advance energy savings, and track performance across one or multiple low-income energy programs.

PROGRAM MODELS

INTEGRATED SOLUTIONS FOR SINGLE-FAMILY AND MULTIFAMILY PROGRAMS

▶ A case study on **Connecticut's Efforts to Scale Up Integrated Energy Efficiency and Renewables for Low-Income Homes** examines how Connecticut has used targeted and integrated program design to scale up and integrate energy efficiency and renewable energy programs for low-income households.

▶ The **Preliminary Assessment Guide for Integrating Renewable Energy into Weatherization** is intended to help Weatherization Assistance Program (WAP) Grantees consider and prepare to integrate renewable energy into their program**.**

▶ The **Issue Brief: Low-income Energy Efficiency Financing through On-bill Tariffs** provides an overview of how on-bill tariffs compare to on-bill financing, and provides stakeholders with resources and examples of how to implement such a program with a focus on benefitting low-income households.

▶ The **Issue Brief: Promising Examples of Integrated Energy Efficiency and Health Services for Low-income Households** discusses how state and local governments have combined energy efficiency with healthy homes objectives, convened and leveraged funding from key stakeholders, and conducted feasibility and evaluation studies of the non-energy health benefits from such an integrated approach.

▶ Promising Practices featured in the section focus on **Leveraging Refinancing and Renovation Events to Drive Low-income Multifamily Housing Energy Retrofits** and **Incorporating Energy Effficiency Standards into Low Income Housing Tax Credit Applications**.

COMMUNITY SOLAR PROGRAM SOLUTIONS

▶ A case study on **Colorado's Approach to Low-income Community Solar Programs that Leverage Weatherization Networks** explores how one state and utility's low-income community solar model has evolved over time and how the state, utilities, and nonprofits have engaged the network of energy assistance and weatherization agencies to further reduce energy burden.

▶ The **Issue Brief: Reducing Energy Burden for Low-income Residents in Multifamily Housing with Solar Energy** includes key considerations for state and local program administrators and profiles of programs in the State of California and by the Denver Housing Authority.

▶ Promising practices in this section focus on **State Partnerships with Electric Cooperatives for Low-Income Community Solar and Weatherization** and on **Engaging Community-based Organizations as Anchors for Low-Income Community Solar Projects.**

Recognizing Partner Activities and Progress

Partners leveraged commitments of up to $335 million to help 155,000 low-income households access energy efficiency and renewable energy benefits.

Cost Savings

- By performing combined weatherization and solar photovoltaic system installation on low-income homes, the **Colorado Energy Office** is reducing annual energy costs by a projected average of **$700** per household.
- The **Michigan Agency for Energy** partnered with a rural electric cooperative and a community action agency to provide 50 low-income households with weatherization and community solar shares. The community solar shares are expected to contribute to **$350 in annual savings per household.**
- The first phase of the **Philadelphia Energy Authority's** affordable housing energy efficiency pilot reported **utility bill savings of 15-30% for the properties served**.
- GreenSpaces, a non-profit in **Chattanooga, Tennessee** provides free energy efficiency supplies and education to low-income residents which resulted in an estimated **average energy bill reduction of 15% per household.**
- Through a plan approved under the Future Energy Jobs Act, **Illinois** agencies established a requirement that owners of master-metered multifamily buildings with solar generation capacity pass along at **least 50%** of the net metering energy savings to tenants.

Households Served

- A strategic partnership inclusive of a faith-based organization, local utility, community action agency and several weatherization service providers implemented more than **3000 energy efficiency retrofits** of low-income homes in **Gary, Indiana.**
- Through a project funded by the **Massachusetts** Low Income Challenge Program, free energy audits were provided in coordination with refinancing at **24 affordable housing facilities, representing 4,400 apartment units.**
- The **New York State Energy Research and Development Authority** provided energy efficiency services to over 15,000 low- and moderate-income households in 2017 and in 2018 has launched the Solar for All initiative, which will secure community solar subscriptions for low-income customers and provide them at zero cost to deliver cost savings and solar energy to more than **10,000** low-income New Yorkers.
- The **Washington D.C.** Solar For All program plans to provide the benefits of solar electricity to **100,000 low-income households** and reduce those residents' utility bills by 50%.

Installed Solar Capacity

- **Energy Outreach Colorado** is collaborating with utility company Xcel Energy to open up **18MW** of new low-income community solar.
- The **Washington, D.C** Solar For All program will install **240-300 MW** of solar power for low-income households over the next 15 years.
- The **Connecticut Green Bank** Solar for All partnership with PosiGen, a program targeting low-and moderate-income homeowners, **has deployed 10MW of rooftop solar PV.**
- Projects funded by the **New York State Energy Research and Development Authority** are in the process of installing approximately **16.1MW** of solar capacity, as well as a microgrid system, to serve low-income residents.

Investment

- The **California Energy Commission** administered over **$61.7 million** for electric technology demonstration and deployment projects in disadvantaged communities throughout the state and secured **$100 million** annually for 10 years from the state Greenhouse Gas Reduction Fund for its Solar on Multifamily Affordable Housing (SOMAH) program.
- **Washington, D.C.** secured **$13 million** to fund Solar for All Innovation and Expansion projects developed to serve low-income communities.
- The **Illinois** legislature committed $150 million for the state's Solar for All programming, plus approximately $10 million per year in utility-collected Renewable Portfolio Standards funds for at least eight years, which will provide solar access to low-income households.
- The **Minnesota Department of Commerce** worked with Xcel Energy to dedicate **$1 million** to incentives for low-income subscription to the utility's Solar*Rewards projects.
- The **New York State Energy Research and Development Authority** administers a budget of **$70 million** annually to address energy affordability and access to clean energy solutions for low- and moderate-income residents through several initiatives that include the provision of no-cost comprehensive energy efficiency improvements and incentives and technical assistance for rooftop and community solar projects.
- **Massachusetts** committed over **$30 million** for various programs, including grants, financing, education, and technical assistance, designed to help low- and moderate- income Massachusetts resident's access cost-saving, clean, and efficient energy technologies.