# Business & Technology Advisory

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## Achieving Cooperative Community Equitable Solar Sources (ACCESS):

## Research on Using Low Income Home Energy Assistance Program (LIHEAP) Funds to Achieve Solar Affordability for Co-op Communities in Need

### Key Highlights

- The U.S. federally funded Low Income Home Energy Assistance Program (LIHEAP) offers grants to address the energy needs of those in need.
- NRECA members serve 92% of counties and county-equivalents defined by the U.S. government as Persistent Poverty Counties (PPCs).
- Through a project called ACCESS, the U.S. Department of Energy (DOE) has awarded NRECA with funding to research ways to ensure that solar generation is available and affordable for consumers who have low- to moderate-income levels (LMI).
- As part of this research, NRECA and its ACCESS project partners will explore if LIHEAP funding may offer an opportunity to extend the benefits of solar energy to LMI consumers as a long-term solution for reducing energy burdens.

### What has changed?

Recently, the U.S Department of Energy (DOE), through the Solar Energy Technology Office (SETO), awarded NRECA funding to research how to make solar energy affordable for rural communities with fewer financial resources. NRECA's project, *Achieving Cooperative Community Equitable Solar Sources (ACCESS)*, the flagship project of our *Advancing Energy Access for All* initiative, will explore and amplify the use of innovative, cost-effective energy access programs to serve co-op consumer-member households with low- to moderate-incomes (LMI). As part of its project objectives, ACCESS will explore hybridization of energy efficiency and solar programs. This may include the possibility of leveraging federal energy assistance programs such as LIHEAP to extend the benefits of solar to LMI consumer-members.

The Low Income Home Energy Assistance Program (LIHEAP) is a U.S. federal government-funded program enacted in 1981 that aims to help low-income households with their energy needs. States, tribes and territories receive LIHEAP funds as block grants, which give them flexibility on how to use the funds and which households are eligible for funding assistance, while staying within established federal guidelines. LIHEAP funds can be used for managing costs related to home energy bills (heating and cooling), energy crises, weatherization assistance and minor home energy repairs.

## What is the impact on cooperatives?

Electric cooperatives serve an estimated 4.2 million people who reside in 92 percent of the United States' Persistent Poverty Counties (PPCs) based on 2017 data. PPCs are counties and county equivalents identified by the U.S. Census Bureau as having a very high percentage of households with incomes below the poverty level over a period of many years. In these economically depressed counties, the share of households with incomes below the poverty threshold ranges from 20 to 60 percent.[1]

Research has shown that, in general, low-income households spend a disproportionately higher percentage of their income on home energy bills when compared to higher income households. In addition, rural households throughout the U.S. spend a higher share of household income on energy bills than urban/suburban households. Nationally, low-income rural households experience the highest median energy costs at 9 percent of household income, almost three times greater than the 3.1 percent median share for non-low-income rural households. Some low-income households are even worse off – in several regions, one-quarter of the low-income rural households have a median energy cost greater than 15 percent.[2] See Figure 1 for more information on the national median rural energy burden:

| NATIONAL MEDIAN RURAL ENERGY BURDEN BY DEMOGRAPHIC | | |
|---|---|---|
| DEMOGRAPHIC | | RURAL |
| TOTAL | Rural households | 4.4% |
| | Metropolitan households | 3.1% |
| INCOME | Low-income (<200% FPL) | 9.0% |
| | Non-low-income | 3.1% |
| HOUSING TYPE | Manufactured housing | 5.8% |
| | Small multi-family (2-4 units) | 4.9% |
| | Large multi-family (5+ units) | 4.6% |
| | Single family | 4.1% |
| AGE | Elderly | 5.6% |
| | Non-elderly | 3.9% |
| HOUSING TENURE | Renters | 5.3% |
| | Owners | 4.1% |
| RACE | Nonwhite | 5.1% |
| | White non-Hispanic | 4.3% |

**Figure 1: National Median Rural Energy Burden by Demographic**
Source: ACEEE "The High Cost of Energy in Rural America, July 2018"

To serve their communities and members who struggle to pay their bills, some co-ops have both developed their own energy assistance programs and utilized public programs, including LIHEAP. These co-ops are generally willing to set up and explore various opportunities to use established and innovative methods to serve their members and ensure energy access for all. The sidebar on the following page provides some examples of the range of co-op programs designed to create choice and opportunity for members.

[1] A map showing areas of persistent poverty overlaid by electric cooperative service areas can be found at: https://www.cooperative.com/content/public/maps/persistent-poverty/index.html

[2] https://www.aceee.org/sites/default/files/publications/researchreports/u1806.pdf

**Examples of Cooperative Programs to**

**Help Consumer-Members Manage Energy Expenses**

- On-Bill Financing/Pay as You Save (PAYS), as seen in Roanoke's Upgrade to $ave, Ouachita's HELP PAYS® program, Midwest Energy's How$mart program or San Miguel's I.Q.Weatherization.
- The *Help My House* pilot program established by the Electric Cooperatives of South Carolina.
- Energy efficiency and weatherization models such as those developed by the Electric Cooperatives of Arkansas.
- The growth of community solar programs such as the collaboration between co-ops in Colorado and the state energy office.
- Innovative rate plans such as those developed by Mid-Carolina Electric Cooperative and Cobb EMC.
- The increase in co-ops offering broadband services to their members.
- Prepay and various other energy access programs.
- Use of existing federal assistance programs designed to help reduce households' energy bills, such as LIHEAP.

## What do cooperatives need to know about it?

Currently, most grantees of LIHEAP funds use the program to provide heating and cooling programs for consumers in need. Appendix A provides details on the current break-down of grantees and details on the qualifications for LIHEAP awards.

While the LIHEAP statute does not expressly call out renewable energy and PVs as a possible use of the LIHEAP funds, supplemental LIHEAP funding is available for current grantees to *"receive competitive grants to implement **innovative** plans to help LIHEAP eligible households reduce their home energy vulnerability."* Current LIHEAP grantees would pursue this additional funding through the HHS REACH[3] program. This supplemental funding may present an opportunity for extending benefits to the LMI community.

LIHEAP is managed by the U.S. Department of Health and Human Services (HHS), while another energy assistance program for low-income consumers, the Weatherization Assistance Program (WAP),[4] is managed by the U.S. Department of Energy (DOE). The LIHEAP statute section referenced here gives grantees the

[3] Residential Energy Assistance Challenge Program (REACH): The law allows HHS to award supplemental LIHEAP funding for current grantees to receive competitive grants to implement innovative plans to help LIHEAP eligible households reduce their home energy vulnerability. https://www.acf.hhs.gov/ocs/resource/liheap-fact-sheet-0

[4] https://www.energy.gov/eere/wap/weatherization-assistance-program

flexibility to use LIHEAP funds for weatherization projects and to choose whether HHS, DOE or a combination of both agencies' rules will be used to administer the projects. This gives grantees the opportunity to think creatively as to which weatherization projects to undertake for their communities. Section 2605(b)(16), also known as Assurance 16, also allows grantees to use LIHEAP funds to provide services that help households reduce their energy needs and by doing so, reduce their need for assistance.[5]

Examples exist of grantees who have explored using state-managed federal funds (including LIHEAP and WAP funds) to extend the benefits of solar energy and energy-efficiency to low-income households in their communities. The following are two case studies:

## Case Study 1: Colorado Energy Office (CO)

In 2015, the state of Colorado though the Colorado Energy Office (CEO) launched a multi-faceted strategy to reduce energy burdens for LMI consumers through the deployment of solar PVs.[6] The CEO strategy included three goals: 1) Supporting LMI consumers through community solar projects,[7] 2) Incorporating solar energy into its weatherization program, and 3) Promoting utility investments in LMI solar programs.

While the community solar project did **not** use federal funding options – LIHEAP or WAP funds, CEO pursued LIHEAP and WAP for the rooftop PV part of the program, so that LMI households could benefit from rooftop solar energy as well. State recipients for LIHEAP and WAP can potentially use both pools of funding for PV deployment at LMI households.

While funds from LIHEAP and WAP can be used for PV, they have different approval and program requirements. CEO first pursued using WAP program funds for PV, and once it was granted approval, it also requested to use LIHEAP funds. Before WAP funds can be used for renewable energy, DOE must approve a state's plan, which must show that the use of solar energy as a weatherization measure in general and in specific individual projects is likely to be cost effective.[8] CEO worked with DOE to identify a method for proving effectiveness of the projects that could be approved by DOE.

For LIHEAP funding for solar energy projects, CEO followed a different path. The staff worked with the Division of Food and Energy Assistance (DFEA) within the Colorado Office of Economic Security, because LIHEAP funds are distributed by HHS to the state via DFEA. Although CO's LIHEAP funds have been used for weatherization purposes before, this project marked the first time PV was included as a weatherization tool in the state's LIHEAP plan. The plan also included rooftop PV as an "other weatherization" measure that could be used when changing a key heating system. HHS approved the plan.[9,10]

For more detailed information on CO's approach, lessons learned and resources developed, see the report, *Reducing Energy Burden with Solar: Colorado's Strategy and Roadmap for States.*

[5] https://liheapch.acf.hhs.gov/pubs/LCIssueBriefs/solar/renewable.pdf
[6] https://www.nrel.gov/docs/fy18osti/70965.pdf
[7] For the community solar portion of the program, CEO awarded GRID Alternatives, a 501(c)3 nonprofit low-income solar developer, a $1.2 million grant with a compulsory 2:1 funding match from utility partners. GRID Alternatives partnered with eight utilities including the following co-ops: Empire electric, Delta-Montrose, Grand Valley, Holy Cross, Poudre Valley, San Miguel and Yampa Valley
[8] Ibid, page 7
[9] Ibid, page 10
[10] DOE funds WAP while HHS funds LIHEAP

## Case Study 2: Cherryland Electric Cooperative (MI)

Cherryland Electric Cooperative in Michigan pursued a different path in its effort to bring the benefits of solar energy to LMI households. In 2018, the co-op partnered with Michigan Agency for Energy (MAE) on a project to reduce the energy bills for LMI households by combining solar energy and weatherization measures. The project was funded partly by the U.S. Department of Energy's Clean Energy for Low Income Communities Accelerator (CELICA) program and did **not** use LIHEAP or other existing assistance programs.[11] The MAE, which was participating in the federal CELICA program, told Cherryland that $80,000 was available for a pilot project aimed at energy efficiency and community solar which would be targeted specifically at LMI households. Cherryland supplemented the project with $190,000 of its **own** funds. For more information on the Cherryland project, see the case study, *Advancing Energy Access for All: Bringing the Benefits of Solar to Low-Income Households – The Case of Cherryland Electric Cooperative.*

The examples presented here show that there may be options for utilities interested in partnering with their states and local governments to extend the benefits of clean energy and weatherization to their LMI consumer-members. Some of these partnerships might be a well-timed pilot opportunity or an effort to leverage existing assistance funds.

Whichever path is of interest, discussions on use of funds in this manner happen with the state's office in charge of administering these funds. While the strategies are unique and targeted to the needs of each state/entity, co-ops might find these experiences useful as they explore designing their own LMI programs.

### *Exploring federal assistance funds for solar opportunities through ACCESS*

NRECA's ACCESS project is engaging a wide range of industry stakeholders for the purpose of exploring diverse opportunities for achieving affordable solar options for LMI consumer-members. One opportunity may be how cooperatives and other utilities can use existing assistance funds such as LIHEAP. Research has shown that there are differing opinions on the idea of leveraging existing federal assistance programs for renewable energy projects.

Because the funding usually available for assistance programs is limited relative to the documented needs of the population, proponents of the status quo prefer that these funds be used only for the purpose of direct assistance for LMI households in covering costs related to home-energy bills. On the other hand, proponents of exploring "innovative" uses for assistance programs advocate that integrating solar energy into these programs could provide enduring reductions in LMI households' energy spending and reduce overall demand for energy assistance. In addition, there may be opportunity for LIHEAP grantees to access LIHEAP supplemental funding through the REACH program for solar advancement in LMI communities. Through the ACCESS project, NRECA and its partnering stakeholders will be developing tools and resources to assist electric cooperatives in pursuing a path to solar affordability suitable for each co-op – and helping individual co-ops successfully deploy solar projects to benefit LMI consumers. There will be many

[11] https://betterbuildingssolutioncenter.energy.gov/accelerators/clean-energy-low-income-communities
*"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."*

recommendations, models, and standards for different cooperatives to consider using. ACCESS recognizes that each electric cooperative has unique circumstances with the consumer-members they serve, their own requirements and goals, and each state's particular offerings and mandates. Whichever path is of interest, the use of LIHEAP, REACH, WAP and other such funds will require coordination with the particular state's office in charge of administering these funds. The ACCESS project will review options and incorporate lessons learned into its final tools and products.

**Share Your Experiences**

Has your cooperative used **LIHEAP, REACH or WAP** funding for innovative ways to serve LMI consumer-member needs? If so, we want to hear from you! Your insights will be very helpful to our ACCESS research to identify ways to provide affordable solar energy options for communities in need. Please email our team at: SolarAccessProject@nreca.coop.

## More Information on ACCESS

For more information about ACCESS, including details of our goals and participants, please visit our website: https://www.cooperative.com/programs-services/bts/access/Pages/default.aspx. Cooperatives who would like to stay informed of developments with ACCESS and provide their input and feedback are welcome to join the effort as Affiliate Cooperatives (please email our team at: SolarAccessProject@nreca.coop.)

## Additional Resources

- ACCESS Website
- Advancing Energy Access for All initiative
- Department of Energy's Low-Income Energy Affordability Tool
- Preliminary Assessment Guide for Integrating Renewable Energy into Weatherization

## Contacts for Questions

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NRECA America's Electric Cooperatives

## APPENDIX A

## Details on LIHEAP

### Breakdown of LIHEAP Grantees

Most states and tribes use the funds to provide heating assistance, while about half of states provide cooling programs. Figure 1 provides a summary of the allocation of LIHEAP Block Grants in 2020:

| FY 2020: States and Washington DC | |
|---|---|
| Component | Grantees Providing |
| Heating | 51 |
| Cooling | 27 |
| Crisis Assistance | 51 |
| Weatherization | 49 |
| Assurance 16 | 34 |

**Figure 1: Grantees FY 2020 Plans for LIHEAP Block Grants**
Source: LIHEAP Clearinghouse review of FY 2020 Plans

### LIHEAP Components

In addition to standard home energy bills from heating and cooling, LIHEAP funds can be used for energy crises, weatherization assistance and Assurance 16 programs provided for in section 2605(b)(16) of the LIHEAP statute. Assurance 16 programs are energy education programs to encourage and empower households to reduce their energy use. These programs are capped at 5% of the grant funds available to each grantee. Average benefit varies by program type and by region across the U.S.

Grantees can intervene in energy crisis situations. The LIHEAP statute defines energy crisis to be weather-related and instances or shortages in energy supply and other household emergencies. Grantees are given the latitude to define crisis and set eligibility criteria.[12]

Weatherization is an optional use of LIHEAP funds.[13] Grantees can use up to 15% of grant funds to provide weatherization for eligible households. Any grantee seeking to spend greater than 15% can apply for a waiver to spend up to 25% of grant funds. Grantees also have the latitude to decide which home repairs will be included in their weatherization plan. Because the Department of Energy (DOE) oversees the Weatherization Assistance Program (WAP), grantees can use DOE's program guidelines to manage their weatherization programs only, LIHEAP guidelines only or a combination of both programs' guidelines[14]. In at least 20 states, the same agency manages the LIHEAP and WAP programs. Grantees must measure the

[12] https://liheapch.acf.hhs.gov/delivery/stats_regs.htm#:~:text=They%20establish%20rules%20for%20provision,sites%20for%20the%20physically%20infirm.
[13] https://www.acf.hhs.gov/ocs/resource/optional-use-of-doe-weatherization-rules-for
[14] Ibid

effectiveness of weatherization programs on the lives of households who have received weatherization assistance.

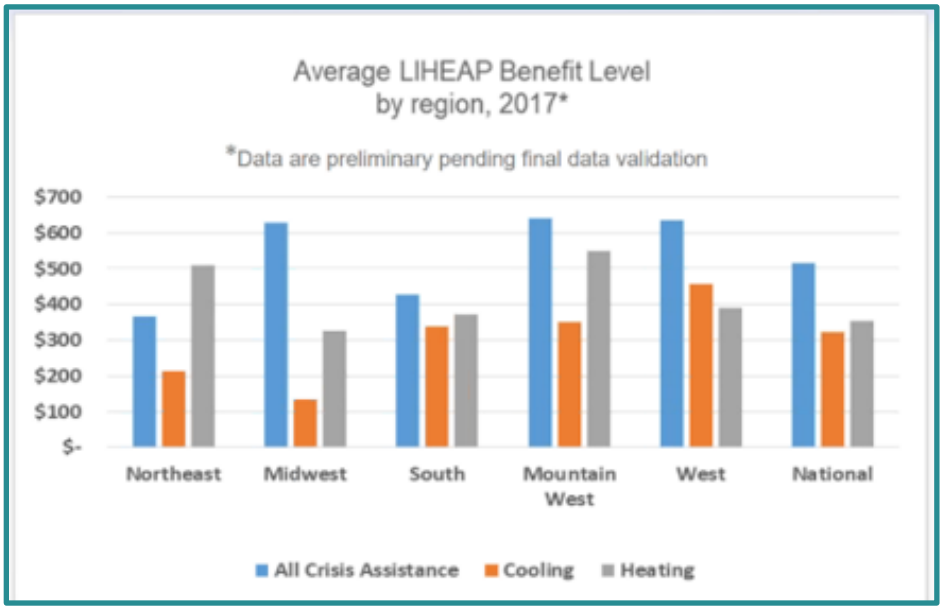


**Figure 2: Average LIHEAP Benefit Level by Region, 2017**
Source: LIHEAP Performance Management Data Warehouse Report

### Income Eligibility and Target Population

1. LIHEAP requires that benefits must be targeted to households with low incomes. Grantees must cap LIHEAP income-eligibility at:
    a. No more than "the greater of 150 percent of the federal Poverty Guidelines (FPG) or 60 percent of the State Median Income"; and
    b. No less than 110 percent of FPG[15].
2. Grantees must also give higher benefits to households with the greatest home energy need relative to household income and number of household members.
3. Grantees must also target benefits to households with members who are elderly, disabled, or have a young child.
4. Grantees are also free to automatically enroll a household if at least one member of said household is enrolled in Temporary Assistance for Needy Families (TANF), Supplemental Nutrition Assistance Program (SNAP), Supplemental Security Income (SSI) and certain means-tested veterans programs[16]

[15] https://www.acf.hhs.gov/ocs/resource/liheap-eligibility-criteria
[16] For LIHEAP Categorical Eligibility, visit https://www.acf.hhs.gov/ocs/resource/liheap-eligibility-criteria