LIHEAPCLEARINGHOUSE

Issue Brief

Renewable Energy and LIHEAP:

Solar Projects Target Energy Burdens

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More and more frequently, advocates for both the low-income community and renewable energy are discussing strategies to bridge the gap between their constituencies. While there are numerous types of renewable energy, much of the discussion about renewables and low-income communities these days focuses on solar energy. One reason is that technology like solar photovoltaic (PV) panels is becoming more widely used, and the price for installing such systems is decreasing.

For the third quarter of 2014, the Solar Energy Industries Association reported that installation of solar PV panels increased 41 percent over the third quarter of 2013. That made it the second largest quarter for solar installation in the history of the market, with the highest coming in the first quarter of 2014. The Center for American Progress has reported that solar PV installation increased 60 percent from 2012 to 2013. Additionally, prices for residential solar PV systems fell 7 percent during the past year.

Over the years, there have been numerous programs that have tried to make renewable energy affordable for the low-income community. In many cases, these programs combined federal, state, and even local monies. Much of the federal funding came via opportunities through the U.S. Department of Energy. While LIHEAP has not been a central participant in many of these examples, it was integral to a fairly recent pilot program in California, and it plays a supportive role in another renewable energy program in Minnesota. When looking at the statutory requirements for LIHEAP, it is easy to see how LIHEAP could facilitate bringing renewable energy to low-income households.

Reviewing Statutory Language

There are a few places in the LIHEAP statute that might help facilitate the use of LIHEAP funds for renewable energy projects. One place is the statute's authorization (Section 2605[k]) for grantees to use up to 15 percent (or 25 percent with a special waiver) of LIHEAP funds for residential weatherization measures. LIHEAP grantees can administer these weatherization funds using the rules for the Department of Energy's Weatherization Assistance Program (WAP), LIHEAP rules drafted by the grantee, or a combination of both. This flexibility in which rules are used allows room for the grantee to think creatively about what kinds of projects LIHEAP weatherization funds will support.

The statute says grantees need to be able to demonstrate "measurable savings in energy expenditures by low-income households" with weatherization measures. Some grantees already use weatherization funds for projects extending beyond simple weatherization kits by providing furnace repair/replacement programs or other offerings to address heating and cooling system failures in low-income

Renewable Energy Resources

- *State Policies to Increase Low-Income Communities' Access to Solar Power*, Center for American Progress, Sept. 23, 2014
- U.S. Solar Market and Insight Reports, Solar Energy Industries' Association
- Solar for All California, California Department of Community Services and Development, undated
- Solar for All California, Status Reports, California Department of Community Services and Development
- *Solar Assistance: Return on Investment*, Rural Renewable Energy Alliance
- *Rural Renewable Energy Alliance Looks to Expand Solar Assistance to Mobile Homes*, Clean Energy Resources Team, April 2013

households. It is also possible that LIHEAP funds for weatherization go into larger pots of money where WAP, utility funds, and state funds are combined for larger, statewide weatherization programs. While the LIHEAP grantee remains accountable for how LIHEAP weatherization funds are used, it is possible that they could contribute to larger projects.

Another part of the statute could facilitate low-income households learning about the benefits of renewable energy. Section 2605(b)(16), commonly known as Assurance 16, allows LIHEAP grantees to use up to five percent of their funds to provide services that help households reduce their energy needs and, thereby, reduce their need for energy assistance. Assurance 16 activities can include education, needs assessments, counseling, and other activities. If LIHEAP funds were to be used for renewable energy projects, it would be possible for grantees to use some Assurance 16 funds to provide education about the project and the impact it could have on clients' energy use and bills.

Throughout, the statute emphasizes that LIHEAP funds should focus on those households with the lowest incomes that pay a high proportion of their incomes for energy costs. The statute is full of references to LIHEAP needing to address the high home energy burden of low-income households. According to the *2011 LIHEAP Home Energy Notebook*, low-income households' percentage of income spent on energy needs was 5.8 percent, compared to 1.3 percent for all households. That means low-income households spend more than four times more of their household income on heating and cooling expenses than other households. Renewable energy could close this energy burden gap. For example, one California study (see below) found solar PV panels saved low-income households 86 percent on their energy bills.

Clearly, the U.S. Department of Health and Human Services recognizes that renewable energy may be offered by LIHEAP grantees. In their current annual LIHEAP plans, grantees can check a box in the "Crisis Assistance" section to indicate they provide solar panels as assistance.

As mentioned earlier, there haven't been too many examples of LIHEAP funds specifically going to renewable energy projects for low-income households. However, this issue brief will look at two examples. The first comes from a California pilot project that used LIHEAP funds to provide solar installations for low-income households. The other example comes from Minnesota, where LIHEAP administration funds help low-income households gain access to renewable energy.

Solar for All California

California has pursued numerous strategies to provide solar power to low-income families. As part of its "Go Solar California" launched in 2007, the "Go Solar Initiative" budgeted 10 percent of its funds ($216 million) to get solar power to low-income households. The funds are split between two programs, SASH and MASH.

California LIHEAP got into the act with the "Solar for All California" program in 2010. It directly invested $14.7 million in LIHEAP funding to support the installation of solar PV panels on LIHEAP-eligible households. The California Department of Community Services and Development (the LIHEAP grantee) was able to leverage an additional $5.3 million through other partnerships and solar rebates. The goals for Solar for All California were to:

- Develop partnerships to provide solar PV systems with no loans, liens, or out-of-pocket costs to low-income households.
- Prioritize energy efficiency to further reduce energy consumption of each low-income home before installing solar PV.
- Help develop "green" jobs by training low-income workers to become solar installers.

Through a competitive bid process, the LIHEAP grantee partnered with four of its existing subgrantees, which, in turn, teamed up with other local entities to deliver the program. The LIHEAP grantee saw the solar installations for low-income households as addressing multiple issues:

- With lower energy bills, low-income households have more money to put toward other necessities, like groceries or medicine.
- Vulnerable populations like seniors

and young children, which can be at more risk due to extreme cold or hot weather, can afford to use heating and cooling appliances when needed.

- Reduce low-income energy burden and improve energy efficiency, while greening these homes and reducing harmful emissions.
- Educate low-income individuals about the benefits of renewable energy and the pride of generating their own electricity.

When the two-year pilot program ended in 2012, it had financed solar PV installation on nearly 1,500 low-income households spread over 20 counties. The number of households served was three times the initial goal of the program. Solar for All California also trained more than 150 individuals in various aspects of solar assessment and installation. One follow-up study found that low-income households in one area saved 86 percent on their energy bills when compared to their "before PV solar" bills. Another "before and after" comparison found a decrease in bills that ranged from 26 percent to 76 percent.

Solar for All California specifically used LIHEAP funds for solar PV installations for low-income households. By committing LIHEAP funds, it was able to leverage additional monies that helped expand the program. In the end, Solar for All California reached three times the number of low-income families that it originally targeted; educated the families about energy conservation and the value of renewable energy; and successfully reduced the energy burden for those homes participating in the program.

The Center for American Progress noted that, unlike other solar offerings for California's low-income community, Solar for All didn't rely on a consumer-financed budget. "Since LIHEAP funding is distributed nationally," the Center noted, "the success of this pilot could be replicated in other states...."

Confirming Eligibility in Minnesota

While it's not committing millions of LIHEAP funds directly to solar installation, Minnesota LIHEAP does help low-income households benefit from the Rural Renewable Energy Alliance (RREAL).

RREAL pioneered the practice of providing low-income households with solar-powered furnaces (SPFs) that can be attached to the sides of houses to give residents a source of heat that is cheaper than traditional fuels. Founder Jason Edens initially started RREAL as an advocacy group that approached the State of Minnesota about including solar power in its energy assistance programs.

When the state didn't act, Edens said he and the non-profit's original activists decided to lead by example. RREAL started focusing on communities with high poverty rates, and Edens said those involved practically went door-to-door in the early years pitching the idea of SPFs to potential low-income families.

To be eligible for RREAL's service, applicants must be LIHEAP eligible, recently had their homes weatherized, have a good solar source, and the housing structure itself must be able to support an SPF.

Over time, Edens said the State of Minnesota took notice of RREAL's work and the non-profit was able to coordinate with the state's weatherization and energy assistance programs. According to the Minnesota Department of Commerce (the LIHEAP and WAP grantee), LIHEAP administrative funds are used to verify income eligibility for both LIHEAP and WAP. This is done by local community action agencies, and it's at this local level where the collaboration between LIHEAP and RREAL happens.

While RREAL isn't fully integrated with LIHEAP, RREAL does use Minnesota LIHEAP's eligibility guidelines and relies on community action agencies to verify applicant income eligibility. Visitors to RREAL's website are directed to their local action agency. In some cases, RREAL has trained local agency staff on siting and installing SPFs, so the local agency does everything. In other counties, agency staff verifies income eligibility and refers applicants to RREAL. The verification activity is covered by LIHEAP administrative funds. However, RREAL only has these types of relationships with about one-half of Minnesota's action agencies.

One current action agency staffer, who has also worked for MinnCAP (the statewide association of community action agencies), says she "loves the partnership with RREAL." She said SPFs are a "low

cost, low care" option for low-income families that help reduce energy bills and don't involve complicated technology, meaning there is no additional burden for the low-income household.

Edens says that LIHEAP is a "critical social net" program, and one that he and his family have benefited from at different times over the years. However, he says there are many people frustrated that billions of dollars are allocated to energy assistance which just flow through to utility companies with no long-term strategy.

As RREAL continues to expand its reach outside of Minnesota, Edens said his preference is always to work with agencies administering LIHEAP and WAP. He believes solar will be integrated into federal energy assistance programs, especially WAP, within 10 years.

Conclusion

The Minnesota action agency staffer said LIHEAP is a great potential partner for getting renewable energy to low-income households. She said her state has collected data about their clients' energy usage and costs for a long time, which would allow LIHEAP to help programs target families with high energy burdens. LIHEAP data could be very beneficial to building bridges between public and private partnerships, she noted.

This dynamic did play out in Massachusetts. In April 2014, the state's Department of Energy Resources issued a notice to LIHEAP coordinators regarding grants to install 35 solar thermal systems for LIHEAP recipients. The purpose was to help LIHEAP recipients supplement their oil and electric heating with renewable solar thermal energy and help lower heating bills over time. The program was to focus on three specific areas of the state, which were identified using LIHEAP data.

LIHEAP can play a role in programs that bring renewable energy to low-income households. By helping these families lower their energy burden and move toward energy self-sufficiency, the use of renewable energy follows the mandate of the LIHEAP statute. LIHEAP grantees could choose to replicate a program like Solar for All California, in which LIHEAP funds were specifically used to install solar systems on homes.

Grantees can also take more of a supporting role, as LIHEAP has done in Minnesota. LIHEAP administrative funds can be used to determine eligibility for renewable programs offered to low-income families and provide referrals to the entities offering such programs. Similarly, LIHEAP Assurance 16 funds could be used to educate low-income households about the benefits of renewable energy. Whether it is very direct through LIHEAP funds purchasing renewable energy systems or being used more indirectly to target and facilitate low-income homes taking advantage of other programs, LIHEAP can play a role in bringing renewable energy to low-income households.

This is the eighth Issue Brief that the LIHEAP Clearinghouse has prepared under contract with the U.S. Department of Health and Human Services, Division of Energy Assistance. The content of this publication does not necessarily reflect the views or policies of the Department of Health and Human Services, nor does mention of trade names, commercial products, organizations or program activities imply endorsement by the U.S. Government or compliance with HHS regulations.