



Photo Credit: Louisiana Housing Corporation

SOLAR ACCESS FOR ALL COALITION WEATHERIZATION ASSISTANCE PROGRAM RECOMMENDED CHANGES

WHO WE ARE

The Solar Access for All Coalition is a group of environmental and social justice organizations and distributed solar companies aiming to advance federal policy priorities to meet the Biden-Harris Administration’s climate and equity goals: Building a more equitable, resilient, and clean electricity grid and economy that works for all Americans.

This document is endorsed by:



LEAGUE of UNITED LATIN AMERICAN CITIZENS



GREENLATINOS



Tribal Utility and Energy Infrastructure
Legislation for Indigenous People (TUEILIP)

THE OPPORTUNITY

With a renewed focus and significant funding increases, the Department of Energy (DOE)'s Weatherization Assistance Program (WAP) could bring solar to tens of thousands of struggling American families, greatly reducing their monthly energy bills, and lifting households out of energy poverty. WAP could become a cornerstone of the Justice40 effort to bring 40% of clean energy spending to underserved communities.

BACKGROUND

The Department of Energy's Weatherization Assistance Program is a very important program -- the oldest and only annual DOE program dedicated to serving low-income households. Congress recently reauthorized the program and amended the statute to explicitly include renewable energy technologies as an allowable expense. This is a very welcome change as many states including Colorado, New York, and the District of Columbia have been pursuing DOE permission to spend WAP funding on rooftop solar systems. (See more about Colorado's efforts in [this NREL report](#).) That said, these states continue to face difficulties as they attempt to use WAP to provide low-income families with solar. Specifically:

- The per capita spending limit is too restrictive and often excludes any consideration of solar PV.
- Homes are often not "solar ready" both in terms of roof and electrical system conditions. This is particularly true for homes in Tribal nations. These prerequisite upgrades are not allowed expenses under WAP.
- The savings-to-investment ratio is too restrictive and precludes solar in about 20 states.

Moreover, the program rules around WAP are very complex and limit the interventions that are possible for each household. And, funding for WAP is clearly insufficient as only [2% of eligible homes participate in the program each year](#). On average, [homes participating in WAP save \\$283 per year on energy bills](#). While this is a good amount of savings,

expanding funding available to the program and to each household, and widening the available technology options could improve families' savings.

Below we recommend changes to WAP that will enable rooftop solar to work under this program. Moreover, allowing both WAP and the Low-Income Home Energy Assistance Program (LIHEAP) to include community solar would further enhance outcomes by expanding clean energy access to households that do not own their rooftops or whose homes cannot accommodate solar panels. Finally, we recommend additional important changes to ensure the program is efficient and provides the families it serves the maximum benefits possible, can better serve Tribes, and accommodates modern energy needs including electrification and storage.

WHY DOES IT MATTER?

As a matter of justice, we must face our nation's history of racism and underinvestment in communities of color and low-income communities. High energy burdens faced by low-income communities lead to energy insecurity with millions facing power shut-offs each year. (See more data on energy poverty in [this IOPScience report](#).) Through WAP, we can bring some renewed investment in the homes of families that need support the most, particularly environmental justice communities, BIPOC households, Tribes and territories, and other underserved areas. Moreover, efficiency, electrification and renewable energy improvements for homes will reduce our contribution to climate change, reliance on polluting fossil fuels, will improve both indoor and outdoor air quality, and can greatly reduce families' monthly energy bills.

With significant increases in funding, focused edits to its authorizing language, and updated regulations, WAP could become a much more efficient and effective program. With a renewed and updated focus, WAP could greatly reduce monthly energy bills for struggling families, lift Americans out of energy poverty, and become a cornerstone of the Justice40 effort to bring 40% of clean energy spending to underserved communities.

RECOMMENDED WAP CHANGES

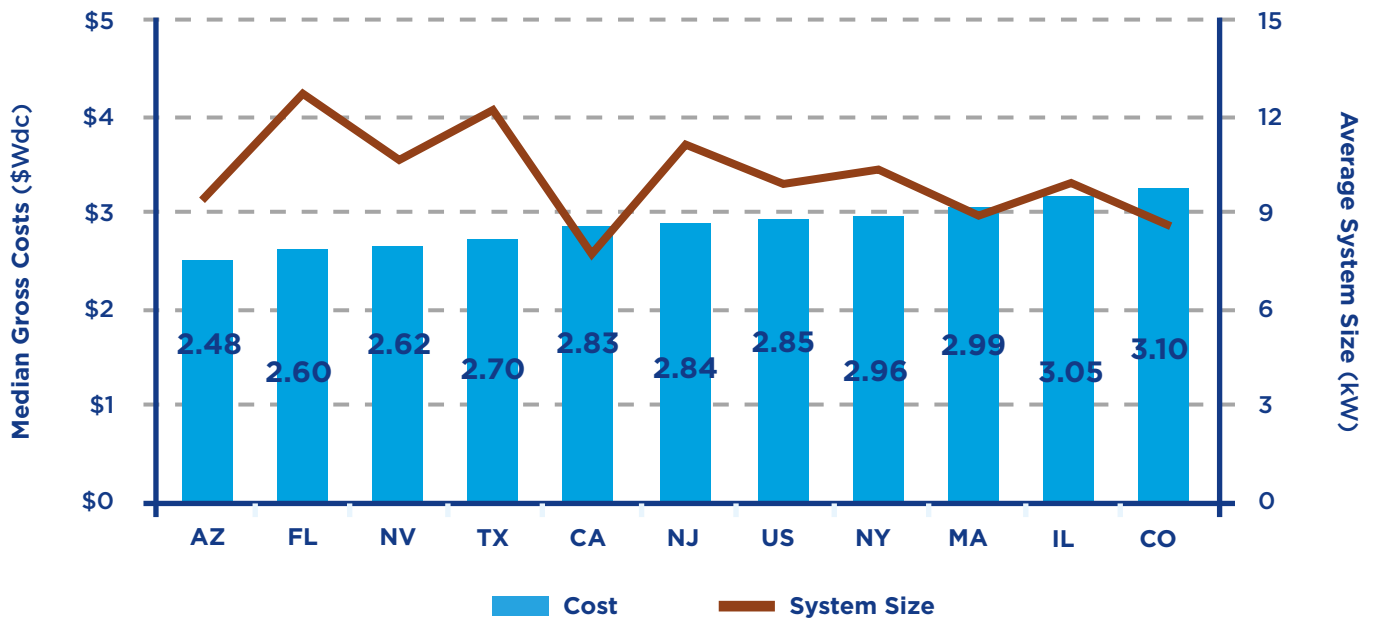
A. ENABLE ROOFTOP SOLAR SYSTEMS

In order to allow solar PV to thrive under WAP, we recommend making all of the following changes:

1. Eliminate the \$3,000 household spending cap on renewables. \$3,000, even if adjusted annually, will not accommodate rooftop solar. To illustrate, [NREL reports](#) that the median quote for solar PV residential systems on EnergySage in the first half of 2020 was \$2.85/W. (State-specific media gross costs for solar from NREL report). If we assume a conservative system size of 6kW per household, that equates to \$17,100 for just the solar installation. As an alternative, Congress could retain the cap, but increase it to \$20,000 per household.

2. Increase the average cost per dwelling unit of \$6,500 to \$15,000 to allow for additional spending on each home and to accommodate solar, electrification and other upgrades in addition to efficiency. (See 10 CFR §440.18(a) and (c).) Given the urgency of the climate crisis and the severity of the economic crisis families are still facing as a result of the COVID-19 pandemic, it only makes sense to maximize the upgrades available to each household. This is particularly true given the 15 year restriction households face from re-entering the program. The state administrators will continue to scrutinize which upgrades are pursued at each home, and can safeguard against any unneeded upgrades or “gold plating” that is sometimes seen in market-based programs.

COST AND SYSTEM SIZE BY STATE, H1 2020



*State-specific media gross costs for solar from NREL report

3. Add rooftop solar to Appendix A ([10CFR 440](#)) which would require state administrators to pursue solar in all cases where it is cost effective. Currently, renewables are only considered an optional measure, and they may be left out, even if they pass the cost effectiveness hurdle.

4. Allow the prerequisite upgrades needed to make a home “solar ready” to be counted as “incidental repairs” or listed as eligible expenses under 42 USC §6862, section 9. These upgrades include, but are not limited to, electrical system upgrades, and roof repair or replacement.

5. Similarly, allow for future maintenance costs of rooftop solar to be covered by WAP. While maintenance costs are generally very low for rooftop solar systems, there is some concern by program administrators that costs may arise down the road that homeowners may not be able to afford. Accommodating this concern may put gatekeepers’ minds at ease.

6. Update the Savings to Investment Ratio (SIR), which requires state administrators to calculate the estimated savings of each technology and compare it to the cost. This calculation currently precludes 20 states from pursuing solar under WAP, as demonstrated in [a 2017 analysis](#) from DOE. Moreover, it limits the efficiency interventions a state can pursue, and is particularly onerous in places with high labor costs. To illustrate, [this 2016 DOE analysis](#) shows replacement windows have an SIR of only 0.62.

Energy upgrades to homes carry significant additional benefits that are not captured in the SIR calculation, including improved comfort and better air quality. The federal government does not limit its investments in any other sphere to only products that provide a quick payback, such as defense

spending or schools. We must prioritize investments in underserved communities as a matter of justice, and not limit ourselves with unnecessary restrictions.

It is costly to administer the WAP program, and to send a weatherization crew out to a home; and each household is limited to only one intervention every 15 years. Therefore, it only makes sense to maximize the upgrades and benefits provided to each household at the time of intervention. This is particularly true in a scenario where WAP receives a significant increase in funding. WAP serves difficult-to-reach populations that would truly benefit from reduced monthly expenses. We must ensure each WAP participant receives all needed upgrades to the home, for the sake of effective program administration, improved outcomes for families, and to address the climate crisis.

Moreover, beneficial energy upgrades to a home including electrification and making a home EV-ready will not clear an SIR hurdle as it is currently calculated.

a. Require DOE to update the SIR to include additional benefits, such as health and safety benefits the December 2020 omnibus made allowable. Congress should also require DOE to take into account additional benefits from weatherization, including the social cost of carbon or the social cost of methane.

The [DOE WAP Evaluation](#) that measured non-energy benefits from WAP during the American Recovery and Reinvestment Act of 2009 found a 4-to-1 benefit to cost ratio when you include health and safety benefits of WAP projects. Incorporating these benefits into the SIR hurdle would allow WAP to be more permissive of technologies that may have a slightly longer payback period, but still reap real benefits for the families and communities they serve.

b. Allow contributions from all other sources to supplement the “investment” piece of the calculation as follows:

COST SAVINGS + ADDITIONAL BENEFITS

WAP \$ INVESTED (TOTAL COST - CONTRIBUTIONS FROM ALL OTHER SOURCES)

c. Assess the entire suite of improvements per household or project or, preferably, at the community level, not on a technology-by-technology basis. Many technologies are complementary and assessing the portfolio of improvements captures these synergies. As an example, insulating a home allows for a smaller and less expensive heat pump or solar PV system. Calculating measures separately does not capture these synergies.

d. Allow states to incorporate dynamic electricity rates, e.g. time of use rates, into savings calculations. And provide technical assistance to facilitate such calculations.

B. ENABLE COMMUNITY SOLAR

Given the myriad of restrictions in WAP program administration, enabling more options to serve eligible residents, regardless of the condition of their homes, is a crucial step to expanding clean energy access to the families most in need. To enable community solar, we recommend the following changes.

1. Add community solar as an eligible technology by listing it in 42USC §6862, section 9 as well as in Appendix A (10CFR 440), and ensure funds can be used to pay for both upfront development costs of community solar systems and for individual household subscription fees to community solar arrays.

2. Explicitly permit both WAP and LIHEAP funds to be aggregated across multiple households and spent on developing a community solar project that will serve multiple households. Right now, there is confusion as to whether WAP and LIHEAP funds must be spent on a household-by-household basis or can be aggregated to fund a project that would serve multiple households.

3. Provide preference for community solar subscriptions for households that have been deferred from weatherization upgrades.

C. ENABLE BENEFICIAL ELECTRIFICATION

Energy security is a concern, particularly for people who heat with fuels that may be unavailable or prohibitively expensive, such as propane. WAP and LIHEAP only permit states to make fuel switching upgrades “on a case by case basis.” The result is that many states miss opportunities to increase energy security, and reduce carbon emissions from fuel switching.

D. INCREASE FUNDING FOR WAP

To enable all of the above improvements, we recommend the following changes.

1. Provide \$2B per year for 5 years, or at least \$10B in total to WAP. ACEEE reported that in 2018, while 30% of U.S. households, or 38.6 million households, were eligible for weatherization, only 90,541 homes or 2% of eligible households participated in WAP. This would suggest current funding needs to be increased by at least 3.3x, in order to serve all households within a 15 year window. What’s more, we recommend providing additional funding for each household, at least doubling the average cost per unit, in order to enable access to distributed solar, beneficial electrification upgrades and health and safety improvements, in addition to weatherization activities.



Photo Credit: Prince George's County Maryland

2. Set aside at least 5% of funding for Tribes, similar to the benchmark set by Congress in the American Rescue Plan.

3. Allow states to use up to 100% of their Low-Income Home Energy Assistance Program (LIHEAP) funding for WAP. Right now, states may use 15% of their LIHEAP funds towards weatherization, or request a waiver from the Department of Health and Human Services (HHS) to use up to 25%. Spending federal dollars on weatherization provides households with long term savings. LIHEAP, while helpful in addressing immediate financial needs, does nothing to address the underlying causes of unaffordable energy bills. Allowing states the option to spend more on weatherization, when they choose to do so, supports longer term investments in reducing energy burdens, and can make future LIHEAP budgets go further and support more families. What's more, LIHEAP funds transferred to WAP are not as restrictive as WAP funds from DOE, which allow providers more flexibility to fill in gaps left by DOE's restrictions.

E. UPDATE ADMINISTRATION OF WAP

To improve the administration of the program, we recommend the following changes.

1. Improve process for Tribes and tribal housing authorities to directly access the grants from DOE. In addition, hold a tribal consultation process to improve tribal direct participation in WAP. This is of particular interest from tribal nations in Washington.

2. Promote co-investment from other sources of funding to support wider deployment. Allow for and encourage the “stacking” of other federal, state, utility and private funding, such as the USDA Rural Energy for America Program, DOE Office of Indian Energy, state green bank financing, utility-led efficiency programs, and private sector capital, to maximize program reach.

This has been an obstacle for a utility in South Carolina, as an example, which has been unable to

coordinate its low-income efficiency program with the state energy office because outside funds are considered “program income,” which reduces the state’s allowed expenditures of federal monies. New York also mentions in its 2021 plan that subgrantees will leverage \$5.7 million in owner contributions, which is currently excluded from DOE’s definition of leveraged funds.

3. Widen eligibility to include all households under 80% Area Median Income (AMI), as published by the U.S. Department of Housing and Urban Development, or 200% of the Federal Poverty Level, whichever is higher. This change would include more families that are struggling to make ends meet, but are currently just out of consideration for WAP assistance.

4. Spur innovation by allowing non-profit organizations and private sector entities to compete to implement weatherization projects. This means removing the requirement that states give preference to existing subgrantees.

5. Shift from programmatic metrics of cost savings and number of households served to outcome-oriented measures such as reduced energy burden, improved health and safety, decreased greenhouse gas emissions, increased energy resilience and improved renewable energy access.

6. Strike the \$50 limitation put on low-cost/no-cost weatherization activities in 10CFR\$440.20, which reads as follows: “(b) A maximum of 10 percent of the amount allocated to a subgrantee, not to exceed \$50 in materials costs per dwelling unit, may be expended to carry out low-cost/no-cost weatherization activities, unless the Support Office Director approves a higher expenditure per dwelling unit.” We should not limit no-cost activities.



Photo Credit: Alabama Department of Economic and Community Affairs

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