

Testimony of

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Introduction

Chairwoman Kaptur, Ranking Member Simpson and Members of the Subcommittee, thank you for the opportunity to testify today on behalf of the Department of Energy's (DOE) Weatherization Assistance Program (WAP).

As Director of the Office of Weatherization and Intergovernmental Program within the Office of Energy Efficiency and Renewable Energy, I am responsible for overseeing DOE's Weatherization Assistance Program (WAP)—the nation's largest residential energy efficiency program. DOE is focused on ensuring that the WAP is implemented consistent with statute to increase the energy efficiency of dwellings owned or occupied by low-income persons, reduce their total residential energy expenditures, and improve their health and safety.

Through retrofitting residential buildings, WAP activities work to reduce the cost of low-income household energy bills. Low-income households carry a larger burden for energy costs, typically spending 16.3% of their total annual income versus 3.5% for other households (Weatherization Assistance Program Technical Memorandum Background Data and Statistics on Low Income Energy Use and Burdens, Oak Ridge National Laboratory, 2014).¹ Up to 40 million low-income households in the U.S. are eligible for low-income housing energy assistance. These low-income households are often on fixed incomes or rely on income assistance programs and are most vulnerable to the volatile changes in energy markets.

The WAP formula grants provide resources for home retrofits that are intended to result in annual energy and bill savings for low-income households over the 20-year life of the measures installed. This allows eligible low-income families to use retrofit-enabled energy cost savings to purchase other essentials (like food, medicine, etc.). Since 1976, WAP has performed over 7 million upgrades to low-income households.

Overview of the Weatherization Assistance Program

DOE provides core funding to **Weatherization grantees** in all 50 states, the District of Columbia, one Native American Tribe, and the five U.S. territories—American Samoa, Guam, Commonwealth of the Northern Mariana Islands, Puerto Rico and the U.S. Virgin Islands—through formula grants. The fundamental mechanics of the WAP is made up of two parts: allocating the funds and producing weatherized homes. DOE has consistently ensured that funds be available to grantees in time for their program cycle—either through partial obligations at intervals under a Continuing Resolution until full appropriations are made or through full allocations of appropriations as is occurring in 2019. In recent years, no grantee has been forced to stop work due to lack of DOE funding. As a result, grantees have been able to weatherize homes, without interruption, in accordance with their State Plan. DOE recognizes every grantee has a set of unique circumstances within which to work and therefore DOE provides some flexibility to the grantee.

¹https://weatherization.ornl.gov/wp-content/uploads/pdf/2011_2015/ORNLTm2014_133.pdf

The DOE allocates WAP funds on a statutory formula basis² and awards grants to a single agency within each State, Washington, DC, a Native American Tribe and the five U.S. territories. DOE provides flexibility to WAP grantees to start their local programs when it is best for their internal structure, such as aligning with their fiscal year. The majority of states follow a July 1 - June 30 fiscal year, while the U.S. territories follow the federal fiscal year (October 1 - September 30). There are 14 Grantees that have selected April 1 as their Program Year start date; the remainder use July 1. DOE initiates work on the WAP Grant Guidance package in May of the year preceding the next year of appropriations.

For example, work on the WAP guidance to distribute FY 2019 appropriations began in May 2018. When Congress appropriates funding for the program, DOE calculates the formula allocations and finalizes the guidance package. Releasing the guidance in December allows sufficient time for distribution of funds to the earliest (April 1) recipients. This provides the time needed for DOE to review the guidance with the grantees, and for the grantees to prepare their applications, hold public hearings (required in most, if not all, jurisdictions), and to submit them to DOE in time for technical and procurement reviews to be performed, process the awards, and set up the accounts that grantees use to draw down the funding. DOE has consistently delivered funds to WAP grantees by their Program Year start dates, even under a Continuing Resolution (where partial awards are made).

Grantees draw down funding from their accounts as they conduct their programs. Funding is used to increase the energy efficiency of homes occupied by families with household incomes of 200 percent or less of the poverty guidelines updated periodically in the Federal Register by the U.S. Department of Health and Human Services under the authority of 42 U.S.C. 9902(2). These agencies (grantees), in turn, subgrant funding to approximately 700 local governmental and nonprofit agencies (collectively known as subgrantees) such as Community Action Agencies and other entities that secure grantees' contracts through competitive grantee procurement processes. The subgrantees provide jobs and deliver the weatherization services to low-income families in every geographic area of the country. Congressional appropriations from 2015 through 2018 ranged from \$188.8 million to \$247.5 million, with production of nearly 35,000 weatherized homes on average per year over this period, averaging between \$5,400 and \$7,000 per home.

Weatherization service providers are expected to choose the best package of efficiency measures for each home based on a comprehensive energy audit. All Energy Conservation Measures (ECMs) must have a Savings to Investment Ratio (SIR) of 1.0 or greater, per 10 CFR 440.21 (d). Professionally trained local weatherization crews use computerized energy audits and advanced diagnostic equipment, such as blower doors, manometers, and infrared cameras to create a comprehensive analysis of the home. This audit determines the most cost-effective weatherization and energy efficiency measures appropriate; and identifies any health and safety concerns, such as carbon monoxide and ensures adequate indoor air quality by testing existing ventilation systems.

² Allocations are determined using two different formulas, depending on the amount of the appropriation. If the appropriation is at least \$209,724,761, allocations are provided as described in 10 CFR 440.10(b). If the appropriation is below this threshold, allocations are reduced according to the guidance in 10 CFR 440.10(c). Each grantee's allocation is reduced from the amount it would be allocated by the same percentage as the total program allocations for the fiscal year if appropriations fall below \$209,724,761.

Once a customized work order is created, the trained crews install the identified energy efficient and health and safety measures. Typical energy conservation measures include installing insulation, sealing ducts, repairing or replacing heating and cooling systems, reducing air infiltration, improving hot water production and use, and reducing electricity consumption. When completed, a certified Quality Control Inspector (QCI) ensures all work was installed correctly and that the home is safe for the occupants.

DOE recognizes the pace for meeting grantee production goals are often subject to local prioritization. Active Federal, regional and state training and technical assistance programs ensure the consistent delivery of quality services. The program uses both Federal and non-Federal funding sources to expand the array of services available for each home and increase the number of homes weatherized. The average total investment per home is \$4,695 from the 2008 Retrospective Evaluation (Weatherization Works – Summary of Findings from the Retrospective Evaluation of the U.S. Department of Energy’s Weatherization Assistance Program),³ which is in line with the preliminary 2017 average cost of \$4,570.⁴

DOE’s Weatherization Assistance Program also includes funding for Training and Technical Assistance (T&TA) activities that improve program effectiveness, service delivery, resource accountability, and operational efficiency. DOE WAP T&TA funding provides resources for the development and dissemination of changes that enable continuous improvement of the program’s operation across the country. T&TA activities include conducting strategic planning and analysis; defining program performance measurements and facilitating advanced techniques and collaborative approaches through pilot programs, publications, training programs, workshops and peer exchanges.

These funds also allow for the development and execution of research projects to improve the quality of services and enhancement of benefits to low-income WAP recipients through identifying areas of program operation that could be improved through the development of best practices or further investigation. DOE coordinates these efforts with partner federal agencies to ensure that this research is, where possible, applicable to a wide range of programs. Learnings from research and replicable models curated from local network agencies can be delivered more broadly to grantees and local agencies periodically to ensure continuous improvement of DOE’s WAP.

Program Impacts

In FY 2015, DOE completed a national evaluation of WAP. The evaluation periods covered included the WAP program year 2008, and the American Recovery and Reinvestment Act of 2009 (<http://www.gpo.gov/fdsys/pkg/PLAW-111publ5/pdf/PLAW-111publ5.pdf>). An impact analysis, completed by Oak Ridge National Laboratory⁵, estimated national energy savings and program cost effectiveness, as well as non-energy benefits (e.g, reduced work absences due to

³ <https://weatherization.ornl.gov/wp-content/uploads/2018/06/WAPNationalEvaluationWxWorksv14blue8515.pdf>

⁴ Based on 2017 Program Year data from the DOE reporting system, Performance and Accountability for Grants in Energy (PAGE)

⁵ <https://weatherization.ornl.gov/wap-retrospective/>

sickness, fewer hospitalizations for those with chronic health conditions, food assistance reduction, etc.), and a comprehensive process evaluation addressed program characterization, operation, training, and quality assurance. Among the program’s publically released results are:

- Single-family home average annual energy cost savings of \$283; and
- A program-wide savings-to-investment (SIR) ratio of 1.4.⁶
- Findings show clients were very satisfied with the program service delivery. The weatherization process—conducting audits, delivering weatherization services, and conducting final inspections—can be challenging to schedule and complicated to complete effectively. However, these high grades from the clients (90 percent or above on almost all measures) speak well of the systems that the weatherization network has put in place to deliver these services.⁷

DOE encourages WAP grantees to secure funds from multiple sources and blend those funds with DOE to enhance and expand weatherization services. Based on The National Association of State Community Service Providers (NASPCSP) 2016 Funding Survey⁸, 48 of 57 WAP grantees receive Low-Income Households Energy Assistance Program (LIHEAP)funds. This federal funding is transferred from LIHEAP grantees to use for weatherization purposes annually. These funding transfers totaled approximately \$408 million from all grantees in Program Year (PY) 2016.

Non-federal leveraged funds may include weatherization funding from the States and resources from utilities and universal service funds. According to data provided by WAP Grantees, during Program Year 2016, 27 states utilized an estimated \$236 million in leveraged funds for weatherization, in addition to the LIHEAP funding.

The funding available for Program Year 2016 totaled \$859 million, including \$215 million (25%) in Congressional appropriations for DOE’s WAP, the \$408 million (47.5%) portion of LIHEAP funds that states put toward weatherization, and the \$236 million (27.5%) in other non-federal funding.

To assist in securing leveraged funds, DOE Program regulations (10 CFR 440.14(c)(6)(xiv)) permit grantees to use a percentage of their grant to undertake leveraging activities which may result in their accessing additional funding or other resources to supplement Weatherization or be used to run a parallel program.

Key Program Improvements, Innovations and Best Practices

Integrated into the production is not only the delivery of weatherized units, but ensuring the quality of work being performed on these homes meets the Program’s expectations. DOE has worked in the last number of years to support the Grantees through the development and implementation of a variety of tools needed to implement work quality, training accreditation,

⁶ The SIR of 1.4 is based on average energy bill savings of \$4,196 over the lifetime of the measures (discounted to present value) divided by average spending of \$2,846 in DOE funding for efficiency measures in homes in the ORNL Weatherization Retrospective Evaluation (2008), https://weatherization.ornl.gov/wp-content/uploads/pdf/WAPRetroEvalFinalReports/ORNL_TM-2015_13.pdf

⁷ https://weatherization.ornl.gov/wp-content/uploads/pdf/WAPRetroEvalFinalReports/ORNL_TM-2014_335.pdf

⁸ <https://nascsp.org/wp-content/uploads/2018/02/nascsp-2016-wap-funding-survey-final-web-display.pdf>

and worker certification, under the WAP Quality Work Plan (QWP). The elements of the QWP include:

- Creation and maintenance of the Standard Work Specifications (SWS) that define how a home is weatherized. The SWS is housed as a component of an online tool for home energy upgrades, serving as the backbone of the WAPs work quality initiatives. The tool allows grantees to develop work quality standards for their crews as well as illustrated field guides, work orders, training plans and checklists. The SWS requires regular review and updating to ensure it is current with codes, technology, and best practice for residential upgrades. The SWS online tool requires ongoing maintenance to respond to user's needs and ensure consistent functionality.
- Development of the home energy professional (HEP) certifications and their underlying resources, such as the job task analyses and certification schemes. All grantees must maintain their HEP quality control inspector certification to retain their American National Standards Institute (ANSI) accreditation. To date over 1,500 Home Energy Professional Quality Control Inspectors have obtained certification, and WAP T&TA funds continue to provide accreditation and support of 22 weatherization training centers.

In addition to the deployment of the Quality Work Plan, advancements to WAP operations include:

- Development of training resources to respond to continually evolving needs in the field, including an enhanced curriculum, updating of the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) 62.2 curriculum, and updating several modules related to weatherizing multi-family buildings.
- Upgrade of and enhancements to the suite of energy auditing tools for single-family buildings, mobile homes, and multi-family buildings—including moving these tools online.
- Presentation on WAP tools to various industry groups including the Better Buildings network, multifamily stakeholder groups, Federal partners, and utility industry.
- Participation in the Federal Healthy Homes Working Group and dissemination of WAP Healthy Homes training to various industry stakeholders.

WAP supports the largest and one of the most technically advanced networks of residential energy retrofit providers in the country. It plays a leadership role in strengthening the infrastructure of the residential energy retrofit market, through coordination with industry stakeholders; it develops and implements voluntary and comprehensive national certifications and standards in retrofit worker training, energy audits, and weatherization methods. For example, utility programs across the country have recognized and adopted the Home Energy Professional Certification program.

Coincident with the work on field upgrades, DOE has also initiated dialogue with the grantees and sub-grantees through the American Consumer Survey Index (ACSI). By listening to our customers, DOE has been able to improve grant application submission and grant management processes, including:

- Established a process to provide grantees a comprehensive overview of the changes or new requirements from the previous year's application.
- Upgraded the data reporting system—Performance and Accountability for Grants in Energy—to simplify the budget process.
- Created planning and reporting templates for T&TA and monitoring activities.

The results of these improvements are evidenced in the feedback and the quality the DOE Project Officers observe through desk and field monitoring. Specific examples are:

- Improved customer service through providing ongoing support to the WAP grantees during their grant application development, instituting a more consistent monitoring process and timeframes for communications.
- Improved training and resources: From September 2017 through January 2019, DOE developed 14 WAP topical trainings to educate the WAP grantees on tools and processes to help run a more efficient program.

FY 2019 Improvements

DOE is taking a closer look at the frequency and reasons that homes are deferred from receiving weatherization services. In FY 2019 the Program is exploring how to increase the housing stock that DOE can provide weatherization services to and reduce the number of homes that are not qualified for services per the audit of the home due to structural issues and conditions, such as roof deficiencies, moisture and mold contamination, and windows with lead paint. In addition, DOE is examining the issue of weatherizing homes that have vermiculite insulation in attics, to understand what concerns there may be in disturbing this material and identifying and piloting best practices for providing services to these homes.

Conclusion

DOE is focused on ensuring that the Weatherization Assistance Program is implemented consistent with statute to deliver more affordable energy to low income families across the country while also maintaining the highest quality standards of work and performance of measures and materials. I appreciate the opportunity to appear before this Committee to discuss the Program