SCEP
STATE & COMMUNITY ENERGY PROGRAMS

WEATHERIZATION ASSISTANCE PROGRAM BRIEFING BOOK

OCTOBER 2024

NOTICE

This Weatherization Assistance Program Briefing Book was written and developed by Simonson Management Services for the U.S. Department of Energy (DOE) under Order # 89243422FEE400259. Funding provided by U.S. Department of Energy Office of State and Community Energy Programs (SCEP). The views expressed herein do not necessarily represent the views of the DOE or the U.S. Government.

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EXECUTIVE SUMMARY

Mission

The U.S. Department of Energy's (DOE) Weatherization Assistance Program (WAP or Program) reduces energy costs for low-income households by increasing the energy efficiency of their homes, while ensuring their health and safety.

WAP has operated for over 47 years and is the nation's largest single "whole house" energy efficiency program. Its primary purpose, established by law, is:

"…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, especially low-income persons who are particularly vulnerable such as the elderly, the disabled, and children."

DOE awards formula grants to all 50 states, the District of Columbia, five U.S. territories and Native American Tribes, which then contracts with local weatherization providers to implement the Program. Nearly 700 local providers deliver WAP services to an average of 35,000 homes annually using DOE congressionally appropriated funds. WAP creates a more comfortable and livable home while reducing annual energy costs by an average of **$372 or more**[1].

For every **$1** invested by DOE, the Program leverages **$3.04**[2] in other federal and non-federal resources. Local organizations use leveraged resources to weatherize more low-income homes and to deliver more services while weatherizing homes.

The Need for Weatherization Services

More than **39.5 million households**[3] are eligible for WAP services, though not all are appropriate candidates for the program. Some income eligible clients may live in dwellings that require repairs, rehabilitation, or services that are beyond the scope of WAP. New funding through the Weatherization Readiness Fund (WRF) authorized in Fiscal Year (FY) 2022 is helping to remove these barriers for some.

Any household at or below 200% of the poverty guidelines is considered eligible. WAP Grantees may also use the U.S. Department of Health and Human Services Low-Income Home Energy Assistance Program (HHS LIHEAP) criteria of 60% of state-median income.

[1] Expressed in 2022 dollars. Tonn, B., D. Carroll, S. Pigg, M. Blasnik, G. Dalhoff, J. Berger, E. Rose, B. Hawkins, J. Eisenberg, F. Uncar, I. Bensch, and C. Cowan. 2014. Weatherization Works – Summary of Findings from the Retrospective Evaluation of the U.S. Department of Energy's Weatherization Assistance Program. Oak Ridge National Laboratory, ORNL/TM-2014/338.

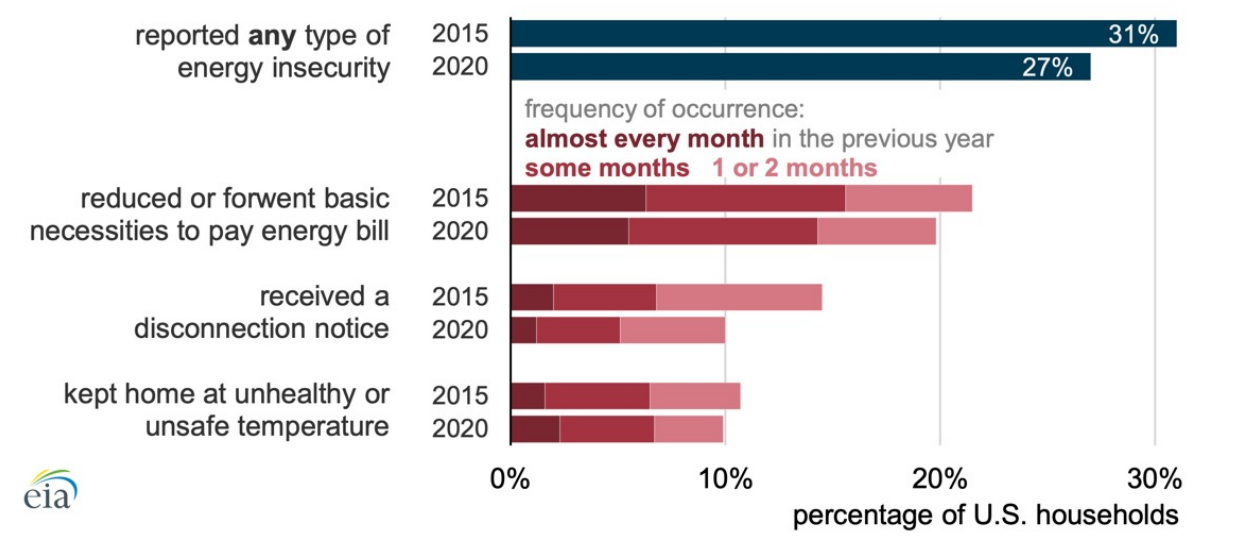
[2] Ibid.

[3] Ibid.

Low-income households typically spend **14%** of their total annual income on energy, compared to **3.0%**[4] for other households and are often on fixed incomes or rely on income assistance programs and are vulnerable to volatile changes in the economy or energy markets. High energy users or households with a high energy burden also receive priority for weatherization services.

Figure 1[5] depicts the percentage of U.S. households that experienced energy insecurity, detailed further by various ways that this occurred, such as having reduced or forewent necessities to pay energy bills, having received disconnection notices, and/or having kept homes at unhealthy temperatures. Across all measures, U.S. household energy insecurity declined from 2015 to 2020, however, more than one-quarter of Americans reported they faced energy insecurity in 2020. This data further exemplifies the need for weatherization, since these services can help reduce the costs of energy and improve health outcomes for a great number of Americans, and additionally, reduce the national energy burden.

Figure 1 | U.S. Household Energy Insecurity Measures (2015 and 2020) | Energy Information Administration (EIA)



[4] Rose, E., B. Hawkins. 2020. "Background Data and Statistics on Low-Income Energy Use and Burden for the Weatherization Assistance Program: Update for Fiscal Year 2020."

[5] EIA, Residential Energy Consumption Survey (RECS). April 11, 2022. "In 2020, 27% of U.S. Households had difficulty meeting their energy needs."

Client Eligibility

DOE WAP stakeholders (Grantees, Subgrantees, Weatherization Training Centers, and advocates) voiced their need for a simpler, streamlined process for the intake of qualifying households. Expanding DOE's income eligibility to categorically include U.S. Department of Housing and Urban Development (HUD) means-tested programs will better facilitate referral services for low-income households, reducing the burden on both the intake agencies and households in need of services.

WAP Grantees and Subgrantees may certify applicants that meet the income requirements of HUD means-tested programs of 80% Area Median Income through mechanisms including, but not limited to: applicant documentation, interagency recipient lists, shared system databases, etc. Method of verification of eligibility must be included in the client file. The beneficiaries of this change include:

1. DOE WAP Grantees and Subgrantees, by allowing households qualified through means-tested HUD Programs, to be categorically eligible for WAP.
2. Eligible households are served by removing the burden of applying for and submitting the same documentation to multiple programs to receive comprehensive services.

Household and Community Impacts

WAP alleviates the heavy energy burden on low-income households and helps them become self-sufficient. WAP measures:

- Result in an average energy savings of **$372 per year**[6] per weatherized household. Savings can be higher if electric baseload measures (e.g., lighting, refrigerators) are upgraded.
- Are "locked" into the home and continue to save money and energy every year.
- Improve health and safety by eliminating energy-related hazards and by enhancing the air quality of the home.

The Weatherization Assistance Program helps low-income households while contributing to revitalizing communities by spurring economic growth and reducing environmental impacts.

DOE WAP returns **$2.78** in non-energy benefits for every **$1.00** invested in the Program[7]. After WAP services, families' homes are more livable, resulting in fewer missed days of work (i.e., sick days, doctor visits) and a decrease in out-of-pocket medical expenses by an average of **$514** (Figure 2). The total health and household-related benefit for each unit is **$14,148**[8].

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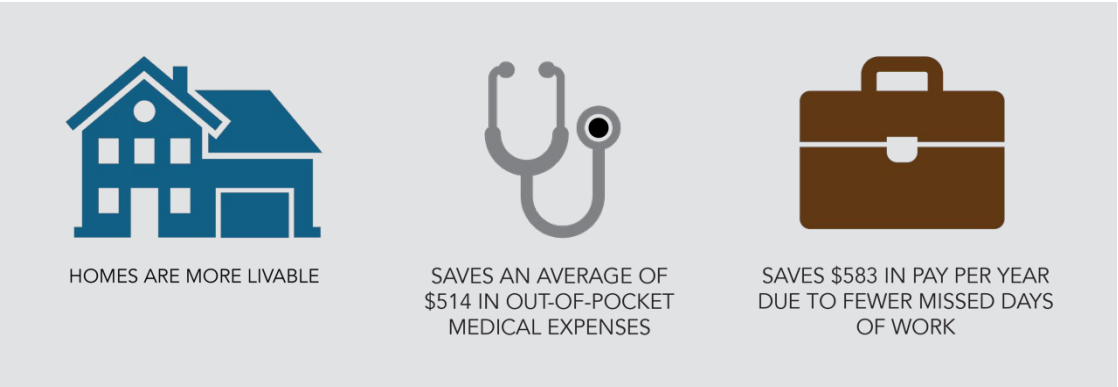
[6] Expressed in 2022 dollars. Tonn, B., D. Carroll, S. Pigg, M. Blasnik, G. Dalhoff, J. Berger, E. Rose, B. Hawkins, J. Eisenberg, F. Uncar, I. Bensch, and C. Cowan. 2014. Weatherization Works – Summary of Findings from the Retrospective Evaluation of the U.S. Department of Energy's Weatherization Assistance Program. Oak Ridge National Laboratory, ORNL/TM-2014/338.

[7] Tonn, B., D. Carroll, S. Pigg, M. Blasnik, G. Dalhoff, J. Berger, E. Rose, B. Hawkins,J. Eisenberg, F. Uncar, I. Bensch, and C. Cowan. 2014. Weatherization Works – Summary of Findings from the Retrospective Evaluation of the U.S. Department of Energy's Weatherization Assistance Program. Oak Ridge National Laboratory, ORNL/TM-2014/338.

[8] Ibid.

Figure 2 | Weatherization Non-Energy Benefits



Federal Coordination Efforts & Braiding Resources

DOE WAP, HHS LIHEAP, U.S. Department of Agriculture (USDA) and multiple programs in HUD continue to collaborate to better support interagency coordination. Each of these agencies serves households with lower incomes, using varying income eligibility requirements. In 2023, DOE Secretary invited HHS, HUD and USDA to create a Memorandum of Understanding (MOU) to fulfill the following goals and objectives:

- Streamline eligibility.
- Improve interagency data sharing.
- Initiate program evaluations.
- Support workforce development.
- Provide joint training and technical assistance.
- Align Justice40 strategies.

DOE will also pursue coordination with HUD's Office of Community Planning and Development (CPD), USDA's Rural Development Office, and other federal agencies to understand the potential for leveraging resources. DOE WAP continues to work with our providers to address additional barriers, facilitate effective braiding of funds, and improve program implementation and flexibility.

DOE is committed to ensuring our providers are fully supported in their efforts to use resources effectively and meet community needs through leveraging nontraditional sources of funds for repairs and costs that WAP is not able to address through our DOE program.

Weatherization in Action

The national WAP network offers a streamlined delivery system to provide high quality, energy-efficient services and improvements in single family homes, manufactured homes, and multifamily buildings and in both owner-occupied and rental properties.

Professionally trained weatherization crews utilize the most advanced technologies to address energy use and improvements. Crews use computerized energy audits and advanced diagnostic equipment, such as blower doors, pressure pans, and infrared cameras, to determine the most cost-effective measures appropriate for each home.

Once a customized work order is created, trained crews install the identified energy efficiency and health and safety measures. Figure 3 illustrates the most typical WAP measures installed in a home. When the work is completed, a certified Quality Control Inspector (QCI) ensures all work was installed correctly to the Standard Work Specifications (SWS) and the home is safe for the occupants.

Figure 3 | Typical Weatherization Measures

MECHANICAL MEASURES

- Clean, tune, repair, or replace heating and/or cooling systems.
- Install duct and heating pipe insulation.
- Repair leaks in heating/cooling ducts.
- Install programmable thermostats.
- Repair/replace water heaters.
- Install water heater tank insulation.
- Insulate water heating pipes.
- Install solar water heating systems.

HEALTH & SAFETY MEASURES

- Perform heating system safety testing.
- Perform combustion appliance safety testing.
- Repair/replace vent systems to ensure combustion gas draft safely outside.
- Install mechanical ventilation to ensure adequate indoor air quality.
- Install smoke and carbon monoxide alarms when needed.
- Evaluate mold/moisture hazards.
- Perform incidental safety repairs when needed.

BUILDING SHELL MEASURES

- Install insulation where needed.
- Perform air sealing.
- Repair/replace windows/doors.
- Install window film, awnings and solar screens.
- Repair minor roof and wall leaks prior to attic or wall insulation.

ELECTRIC & WATER MEASURES

- Install efficient light sources.
- Install low-flow showerheads.
- Replace refrigerators with energy efficient models.

CLIENT EDUCATION ACTIVITIES

- Educate on potential household hazards such as carbon monoxide, mold & moisture, fire, indoor air pollutants, lead paint and radon.
- Demonstrate the key functions of any new mechanical equipment or appliances.
- Discuss the benefits of using energy efficient products.

Program History

WAP was created in 1976 under Title IV of the Energy Conservation and Production Act to assist low-income families at a time when most Americans were dramatically affected by the 1973 oil crisis. Escalating home heating bills were a heavy burden on household budgets, sinking many families into debt. Low-income families in cold-climate states suffered the most severe consequences.

In Maine, state officials and community action agencies worked with homeowners and renters to seal air leaks in homes. These measures cut energy bills and saved oil. Out of this effort, the nation's first weatherization program was developed.

In this early phase, volunteers and job trainees installed low-cost conservation measures, such as covering windows with plastic sheeting, caulking and weatherstripping, to reduce home heating bills. By the 1980s, the Program focused on more permanent and cost-effective measures, such as adding insulation (with its long track record of effectiveness) and improving efficiency in heating systems. Today's home performance industry, made up of for-profit companies, is based on the techniques and technologies developed by WAP.

In the 1990s, the trend toward emphasizing more cost-effective measures continued with the widespread adoption of advanced energy audits and diagnostic equipment. The use of computerized energy audits improved the cost effectiveness of the Program. Blower door-directed air sealing has enabled agencies to diagnose and solve infiltration problems more accurately. The integration of advanced diagnostic equipment has also improved the identification of energy-related health and safety problems, such as carbon monoxide leaks caused by faulty furnaces and inoperable vent flues.

Cooling efficiency measures were integrated into the Program in 1994, including air conditioner replacement, ventilation equipment, and screening and shading devices. These measures have made a big impact in warm climates, where cooling costs are often higher than heating costs.

By 1996, the Program's performance improved significantly due to the implementation of many of the recommendations resulting from a National Evaluation conducted by Oak Ridge National Laboratory and other DOE-supported research projects. Despite funding reductions during this period, technical advances produced almost 70% higher energy savings per dwelling. This was achieved through improved training, auditing tools, and management practices.

Additional regulatory and legislative changes in the late 1990s increased flexibility for states. The average amount of spending per home was raised and the requirement that 40% of Program funds be spent on materials was removed in response to the nationwide integration of advanced energy audits. Electric baseload measures were approved and incorporated in 2000.

Also in 2000, DOE increased flexibility for providers to ease budget constraints related to health and safety expenditures. To help Grantees weatherize more multifamily dwelling units, the eligibility criteria was changed to allow the weatherization of units where low-income tenants account for half of the building's residents in certain situations.

In a 2006 rulemaking, DOE allowed the eligibility of certain renewable energy systems for funding and installation under the Energy Policy Act of 2005 and established criteria for their performance and quality standards.

The Energy Independence and Security Act of 2007 (EISA), which reauthorized the Program, was expanded by DOE during the rulemaking to include any territory or possession of the U.S. in the definition of "states" as an eligible grantee of the Program and created the **Sustainable Energy Resources for Consumers (SERC)** grant program. Section 411(b) of EISA authorizes the DOE Secretary to reserve 2% of the annual appropriations, when over $275 million, for SERC grants. SERC grants focus on expanding WAP by including materials, benefits, and renewable and domestic energy technologies not traditionally included in formula WAP.

As part of the American Recovery and Reinvestment Act of 2009 that was signed into law on February 17, 2009, WAP was appropriated $5 billion in additional funding to support jobs, spur economic growth, and expedite the weatherization of more low-income homes. Through the Recovery Act, the Program weatherized over 1,000,000 homes during three years of the Act.

In December 2020, the Consolidated Appropriations Act, 2021 (P.L. 116-260) was passed and included Energy Act of 2020. Within the Energy Act, Section 1011 reauthorized WAP through FY 2025, increased administrated funds from 10 to 15% of the grant and provided the authority to "reweatherize" a home if 15 years have passed since the original services were provided. In addition, Section 414D of the Energy Act directed DOE to provide financial assistance through a competitive process for **WAP Enhancement & Innovation (E&I)**. For fiscal years 2021 – 2025, available funding for WAP E&I is based on a percentage of the annual DOE WAP appropriation, with a cap of $25 million per year.

The passing of the **Bipartisan Infrastructure Law (BIL)** in 2021 invested $3.5 billion into the Weatherization Assistance Program with a goal of reducing greenhouse gas emissions while lowering energy costs for 700,000 low-income U.S. households. Along with BIL, the Biden Administration also issued Executive Order 14008, Tackling the Climate Crisis at Home and Abroad. Section 223 of EO 14008 established the Justice40 Initiative, which directs 40% of the overall benefits of certain Federal investments – including investments in clean energy and energy efficiency; clean transit; affordable and sustainable housing; training and workforce development; the remediation and reduction of legacy pollution; and the development of clean water infrastructure – to flow to disadvantaged communities (DAC).

In March 2022, H.R. 2471, the Consolidated Appropriations Act was signed into law. This law appropriated $15 million to a **Weatherization Readiness Fund (WRF)** and another $30 million was authorized in 2023. WRF is allocated to WAP Grantees to address needed repairs in homes that historically would result in dwellings being deferred from receiving WAP services. These new initiatives will further increase WAP's impact across the country and help create more sustainable neighborhoods and communities.

With the latest program expansions, DOE's Weatherization Assistance Program continues to evolve as a sophisticated residential program that addresses whole-house energy efficiency, promotes renewable energy sources and innovative technologies, and supports the greater community through workforce development and investments in disadvantaged communities.

Funding and Production History

Many Grantees use DOE WAP funding as the foundation to attract other funding sources. The core funding received from DOE often provides for the training, technical assistance, and administrative needs for a state, territory, or local organization. Leveraging additional dollars allows the local programs to increase the variety of services offered and the number of homes served.

Table 1 reflects the historic DOE appropriations and units weatherized since the Program's inception. Leveraged funds can be credited with increasing the total number of dwellings served through WAP to over **7.2 million**.

Table 1 | Weatherization Assistance Program | DOE Funding and Production (1977 - 2024)

Year	DOE Appropriation (in Millions)	Units Weatherized w/ DOE $	Cumulative DOE Units	Year	DOE Appropriation (in Millions)	Weatherization Readiness Funds (in Millions)	Units Weatherized w/DOE Formula $	Units Weatherized w/ARRA $	Cumulative DOE Units
1977	$27.5	1,622	1,622	2001	$153.0		77,709		2,762,155
1978	$65.0	6,742	8,364	2002	$230.0		104,860		2,867,015
1979	$199.0	15,387	23,751	2003	$223.5		105,953		2,972,968
1980	$199.0	232,751	256,502	2004	$227.2		106,099		3,079,067
1981	$175.0	352,906	609,408	2005	$228.2		100,532		3,179,599
1982	$144.0	122,992	732,400	2006	$242.6		98,626		3,278,225
1983	$245.0	156,629	889,029	2007	$204.6		104,532		3,382,757
1984	$190.0	209,261	1,098,290	2008	$227.2		95,460		3,478,217
1985	$191.0	163,860	1,262,150	2009	$450.0		101,153	7,343	3,586,713
1986	$182.1	149,047	1,411,197	2010	$210.0		49,982	238,317	3,875,012
1987	$161.3	105,440	1,516,637	2011	$174.3		36,878	309,579	4,221,469
1988	$161.3	105,465	1,622,102	2012	$68.0		50,419	226,121	4,498,009
1989	$161.3	85,115	1,707,217	2013	$137.9		49,834	23,103	4,570,946
1990	$162.0	84,441	1,791,658	2014	$179.2		38,099	1,699	4,610,744
1991	$198.9	105,769	1,897,427	2015	$191.8		34,389	527	4,645,660
1992	$194.0	99,587	1,997,014	2016	$213.8		31,633		4,667,293
1993	$185.4	103,394	2,100,408	2017	$226.2		38,626		4,715,919
1994	$206.8	114,904	2,215,312	2018	$250.4		33,819		4,749,738
1995	$214.8	102,981	2,318,293	2019	$262.5		32,451		4,782,189
1996	$111.7	76,393	2,394,686	2020	$302.1		24,183		4,806,372
1997	$120.8	71,597	2,466,283	2021	$283.375		32,338		4,838,710
1998	$124.8	68,470	2,534,753	2022	$283.04 $3,168.0 (BIL)*	$15.0	29,733		4,868,443
1999	$133.0	71,984	2,606,737	2023	$298.920	$30.0	23,630**		4,892,073
2000	$135.0	74,316	2,684,446	2024	$298.920	$30.0			

*Bipartisan Infrastructure Law **FY 2023 production is still being reported

Organizational Structure

DOE awards grants to states, the District of Columbia, the five U.S. territories and American Indian Tribes which then contract with local organizations to deliver weatherization services to eligible residents.

FEDERAL

U.S. Department of Energy

Office of State and Community Energy Programs (SCEP)

Weatherization Assistance Program

STATE

WAP Grantees

50 States

District of Columbia

5 U.S. Territories

American Indian Tribes

LOCAL

WAP Subgrantees

~ 700 Local Weatherization Providers

Community Action Programs & Local Governments

Agency-Based Crews and/or Private Subcontractors

CLIENT

WAP Clients - Homeowners/Renters in:

Single Family Housing

Manufactured Housing

Multifamily Housing

Program Management

U.S. Department of Energy - Headquarters
Office of State and Community Energy Programs (SCEP)
Weatherization Assistance Program
1000 Independence Avenue, SW
Washington, DC 20585-0121
(202) 586-1510

Program Support

Community Action Partnership (National CAP)
1020 19th Street NW, Suite 700 Washington, DC 20036 | (202) 265-7546

Lawrence Berkeley National Laboratory (LBNL)
1 Cyclotron Road, Berkeley, CA 94720 | (510) 486-4000

National Association for State Community Services Programs (NASCSP)
111 K Street, NE, Suite 300, Washington, DC 20002 | (202) 624-5866

National Community Action Foundation (NCAF)
PO Box 78214, Washington, DC 20013 | (202) 842-2092

National Renewable Energy Laboratory (NREL)
15013 Denver West Parkway, Golden, CO 80401 | (303) 275-3000

Oak Ridge National Laboratory (ORNL)
PO Box 2008, MS6070, Oak Ridge, TN 37831-6070 | (865) 574-0749

Office of State and Community Energy Programs (SCEP)

The Office of State and Community Energy Programs (SCEP) at the U.S. Department of Energy works with state and local organizations to significantly accelerate the deployment of clean energy technologies, catalyze local economic development and create jobs, reduce energy costs, and avoid pollution through place-based strategies involving a wide range of government, community, business and other stakeholders.

SCEP's goal is to extend the capacity and capabilities of states, Tribes, local governments, schools, and community-serving organizations to implement high-impact, self-sustaining clean energy projects that center the needs of low-income and Disadvantaged Communities (DAC).

SCEP does this through the management and oversight of **$16 billion** worth of formula grants, competitive grant awards, consumer rebate grants, and technical assistance.

SCEP Strategic Priorities

- Center and deliver on J40 priorities
- Deploy clean energy technologies
- Catalyze local economic development
- Create jobs
- Avoid pollution through place-based strategies
- Reduce energy costs

LEGISLATIVE & REGULATORY OVERVIEW

TIMELINE

	Legislation	Regulations
1974	Pilot	Pilot
1976	1	
1977		1
1978	2	
1979		2,3,4
1980	3	5
1981		6, 7
1982	4	8
1984	5	9
1985		10
1986		11
1990	6	12
1993		13
1995		14
2000	7	
2001		15, 16
2005	8	
2006		17
2007	9	
2008		
2009	10	18
2010		19, 20
2012		21
2020	11	
2021	12	
2022	13	
2023	14	

LEGISLATION

1. Energy Conservation in Existing Buildings Act of 1976 (Title IV of the Energy Conservation and Production Act), Public Law 94-385, August 14, 1976.

2. National Energy Conservation Policy Act (NECPA), Title II, Part 2, Public Law 95-619, November 9, 1978.

3. Energy Security Act (ESA), Title V, Subtitle E, Public Law 96-299, June 30, 1980.

4. Job Training Partnership Act, Public Law 97-300, October 13, 1982.

5. Human Services Reauthorization Act of 1984, Public Law 98-558, October 30, 1984.

6. State Energy Efficiency Programs Improvement Act (SEEPIA), Public Law 101-440, 1990.

7. Energy Act of 2000, Public Law 106-469, October 19, 2000.

8. Energy Act of 2005, Public Law 109-58, August 8, 2005.

9. Energy Independence and Security Act of 2007, Public Law 110-140, December 19, 2007.

10. American Recovery and Reinvestment Act of 2009 (ARRA), Public Law 111-5, February 17, 2009.

11. Consolidated Appropriations Act, 2021, and Energy Act of 2020, Public Law 116-260, December 27, 2020.

12. Infrastructure Investment and Jobs Act (IIJA) or Bipartisan Infrastructure Law (BIL), Public Law 117-58, November 15, 2021

13. Consolidated Appropriations Act, 2022, Public Law 117-103, March 15, 2022.

14. Consolidated Appropriations Act, 2023, Public Law 117-328, December 29, 2022.

REGULATORY RULEMAKING ACTIONS

#	Rulemaking Objective	Initial Action	Final Action	Effective Date
1	Federal Energy Administration establishes a program for Weatherization Assistance for low-income persons pursuant to Part A, 42 U.S.C. 6861-6870 of Title IV of the Energy Conservation and Production Act of 1976.	04/01/1977 Proposed Rulemaking	05/25/1977 Final Rule	05/25/1977
2	Amend regulations to address experience gained during the first year of program implementation to allow greater flexibility in administering the program at the State and local levels.	08/04/1978 Proposed Rulemaking	01/02/1979 Final Rule	01/02/1979
3	Amendments to address National Energy Conservation Policy Act (NECPA) to address cost-effective measures within the cost guidelines of the program. Also aimed to address simplifying regulations to improve program administration.	04/16/1979 Proposed Rule	05/31/1979 Final Rule	07/02/1979
4	To carry out sections of NECPA, DOE proposed changes to revise and simplify Project Retro-Tech, a four volume conservation paper issues by DOE. Publish a “set of procedures” in response to requirements of NECPA (Section 231(b)(1)).	04/16/1979 Proposed Rule	08/29/1979 Final Rule	11/27/1979
5	Adopt amendments on an emergency basis to ameliorate severe hardships resulting from delays in delivery. Specifically, permit payment to hire labor, increase maximum allowable expenditure per dwelling unit, allow low cost/no cost, flexibility around rental units, establish “tentative allocations” to allow DOE to make adjustments based on production.	02/27/1980 Interim Rule with request for comment	Comments received were included in 06/01/1981 amendment	02/27/1980
6	Implement Energy Security Act specifically increasing expenditure for incidental repairs and enabling more than 5% to be passed to subgrantees for administrative purposes. Additional items – adding Hawaii as a Grantee, allowing off-site labor to be chargeable to program support; and amending audit requirements to conform with OMB requirements.	06/01/1981 Amendment to interim rule with request for comments		07/01/1981
7	Incorporates OMB Control Numbers; Reporting or Recordkeeping Requirements to accommodate Paperwork Reduction Act.	None	12/31/1981 Technical Amendments	12/31/1981
8	Implement changes enacted by Energy Security Act, specifically broadening language to allow for “subgrantees” to include CAA, as well as any other public or non-profit entity. Multiple references to intention to not fund the program after 1982 cycle.	1/12/1982 Notice of Proposed Rulemaking (NOPR) and Public Hearing	3/3/1982 Amendment to the Interim Rule	03/03/1982
9	Issue Notice of Inquiry (NOI), to collect comments specific to data collection requirements, energy audits (Project Retro-tech), additional weatherization measures, standards for weatherization materials, weatherization of rental units, and application process. NOPR was issued to identify how DOE proposed to implement recommendations received through NOI to increase flexibility for States to develop and implement program.	07/14/1983 Notice of Inquiry 11/4/1983 NOPR & Public Hearing	01/27/1984 Final Rule	02/27/1984

REGULATORY RULEMAKING ACTIONS

	Rulemaking Objective	Initial Action	Final Action	Effective Date
10	Address changes made by Human Services Reauthorization Act of 1984, specifically allowing eligibility for LIHEAP as eligible for WAP, add replacement furnaces and boilers to materials, allow Secretary to add weatherization materials without a rulemaking; require states spend 40% of costs on materials; allow states to average expenditures, remove limitation on incidental repairs; and allow reweatherization. HSRA of 1984 established ability to execute a performance fund and DOE committed to provide another rulemaking for that purpose. Set criteria for a performance fund that is determined annually based on demonstrated performance. Not less than 5% and not more than 15% of the appropriated amount will be set aside for this purpose.	01/04/1985 Interim Final Rule	Comments received were included in 07/19/1985 NOPR	2/4/1985
11	Set criteria for a performance fund that is determined annually based on demonstrated performance. Not less than 5% and not more than 15% of the appropriated amount will be set aside for this purpose.	07/19/1985 NOPR and Public Hearings	12/05/1985 Interim Final Rule	01/06/1986
12	Establish clear uniform administrative procedures, focusing principally on appeals of pre-award denials; conform post-award administrative review procedures.	01/29/1990 Notice of Interim Final Rulemaking	10/10/1990 Notice of Final Rulemaking	11/09/1990
13	Implement State Energy Efficiency Programs Improvement Act of 1990 requirements. Make clarification, corrections, and non-statutory changes to the existing rule necessitated by evolution of the Program since 1985. Repeal the performance fund.	10/23/1991 NOPR and Public Hearings	03/04/1993 Notice of Final Rulemaking	04/05/1993
14	Implement Department of Interior and Related Agencies Appropriations Act of 1995. Changes to the formula to increase the overall equity, among the States, of funding allocations under the program regulations, while maintaining capacity.	01/23/1995 NOPR and Public Hearings	06/05/1995 Interim Final Rule	07/05/1995
15	Update sections necessitated by evolution of the Program since the last publication of the rule on June 5, 1995. Reference to statutory changes that will occur due to Energy Policy and Conservation Act Amendments of 2000.	01/26/2000 NOPR and Public Hearings	12/08/2000 Interim Final Rule	01/08/2001
16	Incorporate statutory changes of Energy Policy and Conservation Act Amendments of 2000, specifically: eliminating 40% requirement; restructure method by which States compute Average Cost per Unit (ACPU); increase ACPU to $2,500; eliminate separate average for capital-intensive improvements.	Statutory Changes referenced in 12/08/2000 Interim Final Rule	11/21/2001 Final Rule	11/21/2001
17	Implement Energy ACT of 2005. Incorporate criteria for performance and quality standards for eligible renewable energy systems. NOTE: NOPR and Direct Final Rule were published in same Federal Register; DOE assumed there would be no adverse or critical comments by 07/24/2006 deadline.	06/22/2006 NOPR	06/22/2006 Direct Final Rule	08/21/2006
18	Implement Energy Independence and Security Act of 2007 to amend “State” to include territories and outline approach for allocating funds for territories. Implement statutory changes from American Recovery and Reinvestment Act of 2009 into the Final Rule (without comment). Namely, the changes include increasing definition of poverty from 150% to 200%; increase level of expenditure from $2500 to $6500; adjust T&TA allowance from 10% to 20% of appropriation and adjust reweatherization dates.	12/29/2008 NOPR	03/25/2009 Final Rule	03/12/2009 (applicable)

	Rulemaking Objective	Initial Action	Final Action	Effective Date
19	Expand eligibility of multi-unit buildings through HUD Public and Assisted Housing Programs, LIHTC Program, and multi-unit buildings identified by HUD.	05/21/2009 NOPR, Request for Comment	01/25/2010 Final Rule	02/24/2010
20	Establishes records collected by States and weatherization service providers with client information (while administering the Program) are exempt from Freedom of Information Act (FOIA) requests.	03/11/2010 Interim Final Rule	06/07/2010 Final Rule	07/07/2010
21	Removes "sunset date" allowing WAP service providers to continue to treat all requests for information concerning applicants in a manner consistent with the Federal Government's treatment of FOIA requests.	Adjusts "sunset date" referenced in Interim Rule of 3/11/2010	02/28/2012 Final Rule	02/28/2012

HISTORY OF PROGRAM LEGISLATION

1976

Energy Conservation in Existing Buildings Act of 1976, Title IV of the Energy Conservation and Production Act, Public Law 94-385, August 14, 1976

- Served as the enabling legislation for the Weatherization Assistance Program.
- Gave priority service to elderly and disabled low-income persons.
- Established initial set of allowable weatherization materials.
- Materials may be added by rule.
- Directed the Secretary of Energy to make grants to states and Indian Tribal Organizations for weatherizing dwelling units occupied by low-income families, particularly those where elderly or handicapped low-income persons reside.
- Directed the Secretary to publish proposed regulations for the Program that:
  - » Prescribed standards for weatherization materials; and,
  - » Insured that:
    - The benefits of weatherization in connection with leased dwelling units accrued primarily to low-income tenants.
    - Rents on such dwelling units would not be raised because of any increase in the value due to weatherization.
    - No undue or excessive enhancement would occur to the value of such dwelling units.
- Gave authority to the Secretary to determine if the low-income members of Indian Tribes were not receiving benefits equivalent to other low-income persons in a state and that the members of the tribe would be better served by a direct grant.
- Directed the Secretary to provide financial assistance to each state on the basis of the relative need for weatherization assistance among the low-income persons throughout the states, taking into account the following factors:
  - » The number of dwelling units to be weatherized.Climatic conditions.
  - » The type of weatherization work to be done.
  - » Other factors that the Secretary may determine necessary.
- If the State did not submit an application, any unit of general purpose local government of sufficient size or a community action agency are allowed to submit an application.
- Directed the Secretary to provide no financial assistance unless the applicant had provided reasonable assurances that it had:
  - » Established a policy advisory council.
  - » Established priorities to govern the provision of Weatherization Assistance Program.
  - » Established policies and procedures to assure that financial assistance will be used to supplement, not supplant, state or local funds, and increase the amount of leveraged non-Federal funds, including:
    - Securing, to the maximum extent practicable, volunteers pursuant to the Comprehensive Employment and Training Act (CETA) of 1973.
    - Complying with the limitations set for administrative, materials, and labor expenditures.
    - Selection on the basis of public comment received during a public hearing.

1978

National Energy Conservation Policy Act (NECPA), Title II, Part 2, Public Law 95-619, November 9, 1978

- Increased eligibility level from the poverty level to 125% of poverty.
- Allowed a higher eligibility level if determined necessary by the Administrator, Secretary of Agriculture, and the Director of the Community Services Administration.
- Relaxed eligibility requirement from "in which the head of the household is a low-income person" to "occupied by low-income families."
- Added the requirement to establish program regulations within 60 days of law enactment.
- Added requirement to establish procedures to determine the optimum set of cost-effective measures taking into consideration the cost of the weatherization materials, variation in climate and the value of the energy savings.
- Defined and listed specific weatherization materials.
- Limited administrative expenditures to 5% for states.
- Limited expenditures to $800 for materials, tools, equipment, transportation, on-site supervisory personnel, and incidental repairs, but allowed for higher amount if state policy advisory council requested and the Secretary approved it.
- Funding section revised to specify authorization of appropriations for 1979-1981, and required these funds to remain available until expended.

1980

Energy Security Act (ESA), Title V, Subtitle E, Public Law 96-294, June 30, 1980

- Increased limit on administrative expenditures to 10%, except that not more than half may be used by the state.
- Increased $800 limit for weatherization materials to up to $1,600 if Comprehensive Employment and Training Act (CETA) labor was unavailable.
- Required the applicant to select Subgrantees on the basis of public comment received during a public hearing.
- Applicants were required to provide assurances that preference was given to community action agencies or other public or non-profit entities provided such selection was based on the agency's experience and performance in weatherization or housing renovation activities, experience assisting low-income persons in the area to be served, and the capacity to undertake a timely and effective Weatherization Assistance Program. Further, preference was required to be given to any community action agency or other public or non-profit entity which had or was then currently administering an effective weatherization program or program under the Economic Opportunity Act of 1964.
- Required that the efforts of the DOE Weatherization Assistance Program and weatherization program carried out at the Department of Agriculture and the Community Services Administration to accomplish uniform results among the state in any area with similar climatic conditions.
- Increased the $100 limit for incidental repairs to $150.

HISTORY OF PROGRAM LEGISLATION

1982

Job Training Partnership Act, Public Law 97-300, October 13, 1982

- Made funds available for job training programs or services including regional or nationwide efforts to develop a labor force with skills that promote the use of renewable energy technologies, energy conservation, and the weatherization of homes occupied by low-income families.
- Directed the Secretary to provide directly or through grants, contracts, or other arrangements, appropriate pre-service and in-service training for specialized, supportive, supervisory, or other personnel including job skills and appropriate technical assistance.

1984

Human Services Reauthorization Act of 1984, Public Law 98-558, October 30, 1984

- Eligibility criteria added:
  - » If a state elects, assistance under the Low-Income Home Energy Assistance Act of 1981 provided that such basis is at least 125% of the poverty level as determined by the Office of Management and Budget (OMB).
- Weatherization materials added:
  - » Furnace efficiency modifications including:
    - Replacement burners, furnaces, or boilers.
    - Devices for minimizing energy loss through heating system, chimney, or venting devices.
    - Electrical or mechanical furnace ignition systems that replace standing gas pilot lights.
- Removed requirement that adding allowable weatherization materials required a rulemaking.
- Required that at least 40% of the funds provided for materials, labor, and related matter must be spent for materials.
- Expenditure limit increased to *an average of* $1,600.
- Added reweatherization restrictions.
- Established a performance fund.

1990

State Energy Efficiency Programs Improvement Act (SEEPIA), Public Law 101-440, October 18, 1990

- Began adjusting the $1,600 statewide average annually by the lesser of the Consumer Price Index (CPI) or 3%.
- Established a separate expenditure average for capital-intensive heating or cooling modifications.
- Allowed a waiver of 40% material cost requirement if a state adopted advanced energy audit procedures that:
  - » Meet standards established by the Secretary after consultation with the State Energy Advisory Board;
  - » Establish priorities based on their cost and contribution to energy efficiency;
  - » Measure the energy requirement of individual dwelling units and the rate of return of the total conservation investment;
  - » Account for interaction among energy-efficiency measures.
- Allowed the use of priority lists in conjunction with the 40% waiver, provided certain requirements were met.
- Allowed Subgrantees whose grants were less than $350,000 to use up to an additional 5% for administration.
- Added weatherization materials:
  - » Replacement air conditioners.
  - » Ceiling, attic, and whole house fans.
  - » Evaporative coolers.
  - » Screening.
  - » Window films and shading devices.
- Expanded protection for renters:
  - » Allowing benefits and no rent increase even for renters paying for energy through rent.
  - » Establishing complaint procedures.
  - » Instituting states may place liens.
  - » Allowing states to require financial participation from landlords.
- Relaxed requirement for Job Training Partnership Act labor to when it was "generally" available.
- Extended cut-off date for reweatherization to September 30, 1985.
- Allowed reweatherized units to count as completions provided they did not exceed 5% of total homes weatherized per year.
- Allowed the cost of financial audits to be chargeable as a separate line item cost instead of as an administrative expense.
- Added a reporting requirement to include information and data furnished by each state the average costs incurred in weatherization of individual dwelling units, the average size of the dwelling units being weatherized, and the average income of the households receiving assistance.
- Directed the Secretary to annually update the population, eligible households, climatic, and residential energy use, and all other data used in allocating funds.
- Repealed the Performance Fund.
  - » Established a new Incentive Fund.
  - » Allowed priority to be given to children.
  - » Allowed the weatherization of shelters.
  - » Allowed leveraging of non-Federal monies with grant funds.

HISTORY OF PROGRAM LEGISLATION

2000

Energy Policy Act of 2000, Public Law 106-469, October 19, 2000

- Increased statewide average expenditure limit per dwelling to $2,500 to be adjusted annually.
- Included capital-intensive heating and cooling measures in the increased expenditure limit, thereby eliminating the separate capital-intensive expenditure limit.
- Deleted waiver of 40% material cost requirement because all States had adopted advanced energy audits.

2005

Energy Policy Act of 2005, Public Law 109-58, August 8, 2005

- Explicitly allowed renewable energy systems to be funded under the Program.
- Established criteria and a procedure for evaluating renewable energy systems.
- Increased the permissible funding level to $3,000 for such systems, indexed to the lesser of the Consumer Price Index (CPI) or 3%.

2007

Energy Independence and Security Act of 2007, Public Law 110-140, December 19, 2007

- Reauthorized the Weatherization Assistance Program
- Increased authorized appropriations for FY 2008-2012. The following amounts were appropriated—

  ''(1) $750,000,000 for fiscal year 2008;
  ''(2) $900,000,000 for fiscal year 2009;
  ''(3) $1,050,000,000 for fiscal year 2010;
  ''(4) $1,200,000,000 for fiscal year 2011; and
  ''(5) $1,400,000,000 for fiscal year 2012.''.

- Established Sustainable Energy Resources for Consumers (SERC) Grants:
- Made funds available to local WAP agencies to expand weatherization services for residential buildings not currently eligible.
- No funds may be used for these grants if the appropriations for WAP is less than $275,000,000.
- Definition of 'state' expanded to include 'any other territory or possession of the United States.'

2009

American Recovery and Reinvestment Act of 2009, Public Law 111-5, February 17, 2009

- The main purpose of this Act was to stimulate the economy and create and retain jobs.
- The Act gave preference to activities that started and were completed expeditiously, including a goal of using at least 50% of the funds made available by it for activities that were initiated no later than June 17, 2009.
- The Act provided the Weatherization Assistance Program $5 billion in funding for use between April 2009 through March 2012.
- In addition to the increase in funding, the Act:
  - » Increased the referenced percentage of the poverty level in the definition of "low-income" from 150% to 200%.
  - » Increased the limit on the minimum average expenditure per dwelling from $2,500 to $6,500.
  - » Increased the amount of appropriated funds the Department of Energy could apply towards Training and Technical Assistance (T&TA) from 10% of the appropriated sums up to 20%.
  - » Assistance for Previously Weatherized Units: Amended from September 30, 1993, to September 30, 1994.

2020

Consolidated Appropriations Act, 2021, and the Energy Act of 2020, Public Law 116-260, December 27, 2020

- Reauthorized WAP through FY 2025.
- Increased authorized appropriations for FY 2021-2025. The following amounts were appropriated—

  "(1) $330,000,000 for fiscal year 2021; and

  "(2) $350,000,000 for each of fiscal years 2022 through 2025."
- Amends Section 412(9)(J) of the Energy Policy and Conservation Act (EPCA) to include renewable energy technologies and other advanced technologies as weatherization materials.
- Authorizes DOE Secretary to take non-energy benefits, such as health and safety improvements, into account when determining appropriate standards and procedures for WAP.
- Increased administrated funds from 10 to 15 percent of the grant.
- Amended paragraph (2) of section 415(c) of EPCA to adjust the re-weatherization date to the date that is 15 years after the date previous weatherization was completed.
- Section 414D of the Energy Act directed DOE to provide financial assistance through a competitive process for WAP Enhancement & Innovation (E&I).

2021

Infrastructure Investment and Jobs Act (IIJA) or Bipartisan Infrastructure Law (BIL), Public Law 117-58, November 15, 2021

- The Act provided WAP $3.5 billion in funding for fiscal year 2022, to remain available until expended.
- The Act requires that any work performed on multifamily buildings with not fewer than 5 units and uses the IIJA or BIL funds, the requirements of section 41101 shall apply.

2022

Consolidated Appropriations Act, 2022, Public Law 117-103, March 15, 2022

- Appropriated $15 million to a Weatherization Readiness Fund (WRF) in 2022 and another $30 million in 2023.

2023

Consolidated Appropriations Act, 2023, Public Law 117-328, December 29, 2022

- The Act appropriated funding for fiscal year 2023 for both the WAP and WRF.

WEATHERIZATION TIMELINE

1970s

1978

DOE published ***Project Retro-Tech, a paper-based audit*** for identifying weatherization measures that would produce the most energy savings per dollar spent. ***Typical measures included air sealing (with caulk) and insulation ("Blow & Go" installed by volunteer labor)***. Weatherization begins mainly as an envelope improvement program with no building diagnostics or cost-effectiveness requirements.

1979

Water heater insulation, more substantial air sealing efforts (patching), attic ventilation and others are added to list of approved weatherization materials.

1980s

Allowed low-cost/no-cost general heat waste measures like water flow reducers, limited to 10% of total grant and $50/home. Grantees are allowed to hire labor if volunteers are unavailable.

1980

1986

Average cost per unit increases to $1,600 and $150 limit on incidental repairs is lifted. Replacement heating systems are allowed and early adopters are using blower doors to diagnose home air leakage.

Added building envelope materials, including ***moveable window insulation and constructing vestibules, pipe and boiler insulation materials, heating/cooling equipment and water heater tune ups***. Client education is allowed under the Training and Technical Assistance portion of WAP grants.

1984

A NY State WAP retreat results in a set of principles that will ***form the basis of the home performance industry***. From this, Building Performance Institute (BPI) is established as a NY State program.

1993

Savings-to-Investment Ratio (SIR) was introduced. ***Advanced home diagnostics*** takes root as practitioners measure and use energy requirements and take account of measure interactions to receive an audit waiver. ***Cooling equipment and ventilation equipment*** are added to the Program.

Weatherization training centers Association for Energy Affordability (AEA) in New York and the Indiana Community Action Association (INCAA) become ***the first BPI affiliates.*** They developed and delivered training leading to BPI certification, improving consistency of training and qualifications of WAP staff.

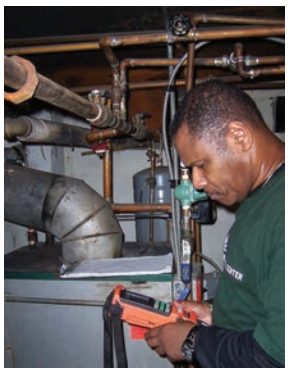
1998

1990s

1996

Original BPI pilot testing of weatherization staff across multiple states. ***First weatherization auditors and installers receive BPI certifications.***

1999



Process begins to ***expand existing BPI standards from weatherization to the emerging home performance industry***. Combustion diagnostic protocols are developed for gas appliances.

Advanced audits or priority lists are widely used and SIR is guiding weatherization spending. General heat waste reduction measures, electric baseload measures including hot water heaters and refrigerators are added to the Program.

2001

The Recovery Act invests $5 billion in WAP. Weatherization training providers ramp up to meet additional staffing requirements nationwide. Workforce standardization launches with the development of the ***four (4) key weatherization/home performance Job Task Analyses (JTA)*** & training center accreditation programs.

2009

2000s

2006

Renewable energy systems are added into WAP. Acceptable systems include ***solar, biomass and geothermal***.

2007

The *Energy Independence and Security Act of 2007 (EISA)*, which reauthorized the Program, was expanded by DOE during the rulemaking to include any territory or possession of the U.S. in the definition of "states" as an eligible Grantee of the Program and ***created the Sustainable Energy Resources for Consumers (SERC)*** grant program.

WEATHERIZATION TIMELINE

2010s

2010

DOE awarded ***$90 million in SERC grants*** to 101 local providers located in 27 states.

Weatherization Innovation Pilot Projects (WIPP) initiative is launched to accelerate innovations in whole-house weatherization.

Sixteen (16) WIPP Grantees were awarded a total of ***$30 million in Recovery Act funds.***

2013

The four (4) single-family, full-scope, International Standard Organization and International Electrotechnical Commission 17024:2012 accredited HEP certifications were finalized - ***Quality Control Inspector (QCI), Energy Auditor (EA), Crew Leader (CL), and Retrofit Installer Technician (RIT).***

2017

In December 2017, ***WAP holds the first of four (4) collaborative Solution Summit*** meetings. The summits were held to bring WAP professionals together to identify barriers to delivering quality weatherization services and identifying ideas to more effectively and efficiently manage local weatherization programs.

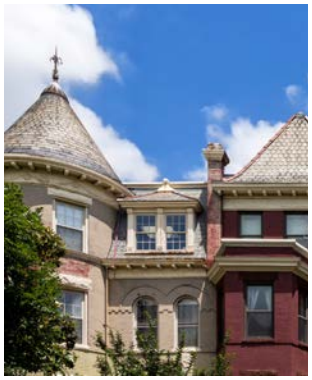
2010

Standard Work Specifications for Upgrades to Residential Buildings are published, the result of DOE Weatherization bringing together dozens of industry subject matter experts and stakeholders.

2019

DOE launched an ***American Consumer Satisfaction Index (ACSI)*** survey to WAP Grantees and Subgrantees to identify the strengths and areas of improvement for DOE as well as each individual WAP Grantee.

WAP organized a series of Continuous Improvement Workshops in 2019 to gather input from network stakeholders to identify opportunities for improved coordination, training, procedures, and communication across all levels of the WAP. These workshops built on a previous cycle of Solution Summits held in 2017.



DOE launches the first ***Historic Preservation Prototype Programmatic Agreement*** for WAP Grantees.

The ***Non-Energy Impacts (NEI) - social cost of carbon and water usage reduction*** - are approved to be included in the energy audit process.

The President signed the ***Bipartisan Infrastructure Law (BIL)*** which invested $3.5 billion into WAP.

2021

In June 2023, DOE released the $25 million ***Funding Opportunity Announcement (FOA) for the BIL E&I*** to expand energy retrofits of low-income housing.

2023

2020s

2020

The ***Consolidated Appropriations Act, 2021 (P.L. 116-260)*** was enacted and included the ***Energy Act of 2020***, which reauthorized WAP through FY 2025, increased administrative funds from 10 to 15 percent of the grant and provided the authority to "reweatherize" a home if 15 years have passed since the original services were provided.

The Energy Act established a new competitive grant program entitled ***WAP Enhancement & Innovation (E&I)*** for the fiscal years 2021 – 2025.

2022

In March 2022, H.R. 2471, the Consolidated Appropriations Act was signed into law and appropriated ***$15 million to a Weatherization Readiness Fund (WRF) and $30 million was authorized in 2023.***

Regional Priority Lists are launched for single-family site-built, manufactured homes, and low-rise multifamily projects.

In early 2023, DOE awarded the ***first round of Innovation grants: 21 E&I projects, totaling $37.9 million and five SERC projects totaling $5.6 million.***

In December 2023, DOE awarded the second round of SERC grants, awarding a total of ***$15.2 million to ten WAP Grantees.***

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FUNDING AND PRODUCTION

Each year, Congress appropriates funding to implement the Weatherization Assistance Program (WAP or Program) under the guidance of the U.S. Department of Energy (DOE).

From the total annual appropriation, DOE reserves funds for its national training and technical assistance (T&TA) activities that benefit all WAP Grantees. In addition, DOE specifically allocates funding to Grantees for T&TA activities at both the state and local levels. The total funds for national, state, and local T&TA cannot exceed 20% of the congressional appropriation.

The remaining funds comprise the total Grantee program allocations, which are distributed according to an allocation formula that was revised in 1995.

Weatherization Allocation Formula

The WAP allocation consists of two parts: the **base allocation** and the **formula allocation**. The base allocation for each Grantee is fixed, but differs for each Grantee. The base allocation is computed so the revised formula does not cause large swings from previous allocations, which could disrupt a Grantee's program. The sum of the base allocations for all Grantees totals **$171,858,000**. The total formula allocations equal the total program allocations minus the base allocations.

Factors for Distributing Funds

The total formula allocations are distributed based on three factors for each Grantee:

F1. Low-Income Population Factor is the percentage of low-income households per Grantee relative to the national count of low-income households. Grantees with higher household counts with incomes meeting 200% Federal Poverty Guidelines have higher values.

Data used for this determination is gathered from the Census Bureau's American Community Survey (ACS). For Alaska, Hawaii, Puerto Rico and the Continental U.S., the most recent household counts were calculated by APPRISE, Inc., utilizing the Public Use Microdata Sample (PUMS) of the 2016-2020 ACS. The U.S. Virgin Islands and Pacific Island Territories were calculated using prior methodology.

F2. Climate Factor ranks the climate data of each Grantee's against each. The methodology used in calculating the climate data results in cold climate Grantees having higher values than hot climate Grantees.

F3. Residential Energy Expenditures Factor ranks the energy burden of low-income households in each Grantee's service territory. Energy burden is the percentage of a household's energy costs as a function of their household income. Locations where household spend significantly for household energy use have higher factors.

Beginning with its 2020 survey, the Energy Information Administration's (EIA) Residential Energy Consumption Survey (RECS) provides direct measurement of low-income household energy burden by Grantee.

Formula Allocation Share

Once each Grantee's F1, F2, and F3 factors are determined, the formula allocation share can be calculated. The first step is to multiply F1, F2, and F3 for each Grantee, which is referred to as "weight". The weight of all Grantees are summed for the total weight. The formula allocation share is then calculated by dividing the Grantee's weight by the total weight.

Grantees with high counts of low-income households, in colder climates, and expensive household fuel costs relative to income have the higher formula allocation shares.

Grantee Allocations

Each year, DOE prepares WAP Grantee total allocations, following any directives from Congress, and distributes the information through a Weatherization Program Notice (WPN) distribution mechanism. The Total Allocation is the Congressional Appropriation for the Program minus any specific directives. In addition, at specific funding levels, funds may be directed toward specific grants as follows:

- **Sustainable Energy Resources for Consumers (SERC) Grants** – If WAP appropriated funds exceed $275 million, the DOE Secretary may elect to use up to two (2) percent of the amount of funds made available for SERC (Per Title IV of the Energy Independence and Security Act of 2007 (EISA), Section 411(b). (Pub. L. 110–140, title IV, §411(b), Dec. 19, 2007, 121 Stat. 1600).
- **Weatherization Enhancement & Innovation (E&I)** – If WAP appropriated funds exceed $225 million, then the Secretary can designate between 2-6% of the appropriation for E&I grants. This is referenced in the new reauthorization, included in the Energy Act of 2020, Division Z of P.L. 116-260.

10 CFR 440.10 Allocation of funds provides the methodology to calculate Grantee Program Allocations:

Determine Total Program Allocation:

Annual Appropriation for FY 2023	$366,000,000
DOE HQ T&TA Appropriation for FY 2023	- $10,000,000
SERC (2%)	- $6,520,000
E&I (6%)	-$19,560,000
SCEP Crosscutting	- $1,000,000
Weatherization Readiness Fund	- $30,000,000
Total Appropriations for Allocation	$298,920,000
Total Grantee T&TA (17.5% of Total Appropriations)	- $52,311,000
Total Program Allocation =	$246,609,000
Total Base Allocation =	-$171,858,000
Total Formula Allocation =	**$74,751,000**

The Impact of the Revised Formula is Reduced When...

The interim final rule on the revised allocation formula was published on June 5, 1995. At the time, funding cuts were a possibility. The rule outlines the method for determining allocations in the event of such funding cuts. Public Law 103-332 called for an appropriation of **$226,800,000** for the WAP in Fiscal Year (FY) 1995. After reserving funds for the DOE Headquarters (DOE HQ), Grantee T&TA, and for cross-cutting activities, total program allocations were **$209,724,761**.

The rule states if appropriations are decreased such that total program allocations fall below the amount under Public Law 103-332 ($209,724,761), then each Grantee's program allocation shall be reduced from its allocated amount under Public Law 103-332 by the same percentage. For example, if total program allocations for a given year were 10% below the amount under Public Law 103-332, the allocation would be calculated at the full $209,724,761 funding amount and each part of the Grantee's program allocation (base and formula) would be reduced by 10% to create each allocation number.

Weatherization Allocation Formula Example - Below $209M

Congressional Appropriation	$212,500,000
– DOE/HQ and State T&TA	– $37,187,500
Total Program Allocation	$175,312,500
– Total Base Allocations	$171,858,000
Total Formula Allocations	**$3,454,500**

Sample State Calculation*

State Base Allocation, assumption	$1,636,000
+ State Formula Allocation Percent Reduction *(based on F1, F2, and F3 factors - pg. 27)*	+ $363,955
State Program Allocation	$1,854,160
+ State T&TA *($50,000 plus a certain percentage** of the State Program Allocation)*	+ $381,964
Total State Allocation	**$2,236,124**

NOTES:

* *Example only, not all states would receive this amount.*

** *The percentage used to calculate Grantee T&TA is constant for all Grantees and is set such that the sum of Grantee T&TA for all Grantee plus DOE/HQ T&TA equals 20% of the Congressional appropriation.*

Impact of the Revised Formula When Above...

When funding is provided at or above **$209,724,761**, per 10 CFR 440.10(b), the Total Grantee Formula Allocation is distributed to Grantees by their comparative formula factors. Formula factors are periodically updated as indicated in 10 CFR 440.10(b)3.

Weatherization Allocation Formula Example - Above $209M

Congressional Appropriation	$254,000,000
- DOE/HQ and State T&TA	- $46,462,500
Total Program Allocation	$219,037,500
- Total Base Allocations	$171,858,000
Total Formula Allocations	**$47,179,500**

Sample State Calculation*

State Base Allocation, assumption	$1,636,000
+ State Formula Allocation *(based on F1, F2, and F3 factors - pg. 27)*	+ $725,277
State Program Allocation	$2,361,277
+ State T&TA *($50,000 plus a certain percentage** of the State Program Allocation)*	+ $488,352
Total State Allocation	**$2,849,629**

NOTES:

* *Example only, not all states would receive this amount.*

** *The percentage used to calculate Grantee T&TA is constant for all Grantees and is set such that the sum of Grantee T&TA for all Grantee plus DOE/HQ T&TA equals 20% of the Congressional appropriation.*

Training & Technical Assistance Funds

The Secretary may reserve from the funds appropriated for any fiscal year an amount not to exceed 20% to provide, directly or indirectly, training and technical assistance to any Grantee or Subgrantee.

DOE HQ determines the programmatic Training & Technical Assistance (T&TA) funds. DOE HQ T&TA funds are included in the calculation to ensure total program T&TA funds does not exceed 20%.

Historically, DOE HQ has used these definitions to determine Grantee T&TA Allocations:

***Program T&TA Allocation**	=	Program Fixed T&TA + Program Variable T&TA
***Program Variable T&TA**	=	Program T&TA Allocation – Program Fixed T&TA
***Program Fixed T&TA**	=	Count of Grantees X $50,000 per Grantee
***Grantee T&TA Allocation**	=	Grantee Fixed T&TA + Grantee Variable T&TA
***Grantee Fixed T&TA**	=	$50,000
***Grantee Variable T&TA**	=	Grantee Program Allocation / Total Program Allocation X Program Variable T&TA

Weatherization Readiness Funds

WAP local providers can address necessary repairs in dwellings that have been deferred from receiving weatherization services using Weatherization Readiness Funds (WRF), which were introduced into the Program through H.R. 2471, the Consolidated Appropriations Act. This law appropriated **$15 million** in 2022 to WRF and another **$30 million** was authorized in 2023. WRF follows the WAP T&TA distribution formula:

- Each Grantee receives a fixed amount of $50,000.
- The remaining funds, or "Variable WR" amount is multiplied by the Grantee's "share".
- These two amounts – $50,000 and the Variable WR share – are added together to determine the Grantee's share of the WRF.
- Each Grantee will determine how the funds are distributed to Subgrantees, just as the Grantee determines the T&TA distribution and program fundings.

Bipartisan Infrastructure Law

The Bipartisan Instructure Law (BIL), including the $3.5 billion for WAP, is an investment in our nation's infrastructure, workers, and families. For lower-income households who can spend up to **30% of their income on energy costs**[1], energy savings is essential. In addition, avoided emissions means less carbon and air pollution, which disproportionately harms lower-income communities, especially communities of color.

BIL funding will deliver a more equitable clean energy future by:

- Investing in American manufacturing and workers.
- Expanding access to energy efficiency and clean energy for families and communities.
- Delivering reliable, clean, and affordable power to more Americans.
- Reducing fossil fuel use and exposure to fossil fuel cost volatility.

[1] Shelly DuPont, 2021. "U.S. Department of Energy Uses ACS Data to Power the Low-income Energy Affordability Data (LEAD) Tool". https://www.census.gov/programs-surveys/acs/about/acs-data-stories/lead-tool.html; https://www.energy.gov/scep/slsc/lead-tool

Program priorities under BIL include:

- Improving Program implementation and flexibility.
- Targeting highest energy burden and disadvantaged communities.
- Increasing energy efficiency and renewable energy technologies use, braiding of funds, and opportunities for electrification.
- Minimizing deferral rates for homes identified to receive weatherization services.
- Expanding workforce and diversity.

Davis-Bacon and Related Acts

WAP has historically not been subject to the Davis-Bacon and Related Act (DBRA) prevailing wage requirements. However, at two times in our program's history, legislation required compliance with DBA:

- **2009**: All projects funded in whole or in part by the **American Recovery and Reinvestment Act (Recovery Act)** required compliance with DBRA.
- **2021**: All projects funded in whole or in part by BIL funding* (Section 41101 and 40552) requires the payment of prevailing wages for work performed on **multifamily buildings with not fewer than 5 units**.

* Under BIL funding, all laborers and mechanics employed by contractors and subcontractors on *multifamily building projects* with not fewer than 5 units funded directly by, or assisted in whole or in part by and through the Federal Government pursuant to the BIL, shall be paid wages at rates not less than those prevailing on projects of a character similar in the locality, as determined by the Secretary of Labor.

Build America, Buy America

The BIL made changes to domestic content preference laws, which require that certain goods purchased with federal funds for public buildings to be manufactured primarily in the United States. "Buy America" requirements previously applied to iron, steel, and certain manufactured goods. Title IX of HR 3684 "Build America, Buy America" broadens coverage to include nonferrous metals such as copper used in electric wiring, plastic- and polymer-based products, glass (including optical fiber), and certain other construction materials, such as lumber and drywall.

Weatherization projects on **public housing, or on privately owned buildings that serve a public function** that use any WAP grant funding (awarded after May 14, 2022) are required to comply with the BABA requirements. When necessary, recipients may apply for, and DOE may grant a waiver from the Buy America Preference requirements.

Weatherization Funding by Grantee | Fiscal Year 2024

Annual Formula Grantee Allocations @ $298,920,000 plus $30,000,000 WRF

Grantee	FY 2024 Program Allocation	FY 2024 T&TA Allocation	FY 2024 Total Allocation	FY 2024 WRF Allocation
Alabama	$2,785,126	$609,162	$3,394,288	$357,188
Alaska	$1,844,907	$420,397	$2,265,304	$253,486
Arizona	$1,936,680	$438,822	$2,375,502	$263,608
Arkansas	$2,203,925	$492,476	$2,696,401	$293,084
California	$7,435,566	$1,542,818	$8,978,384	$870,114
Colorado	$5,698,267	$1,194,025	$6,892,292	$678,496
Connecticut	$2,996,244	$651,548	$3,647,792	$380,474
Delaware	$652,802	$181,061	$833,863	$122,001
District of Columbia	$603,026	$171,068	$774,094	$116,511
Florida	$3,103,745	$673,130	$3,776,875	$392,331
Georgia	$3,917,626	$836,531	$4,754,157	$482,099
Hawaii	$207,122	$91,583	$298,705	$72,845
Idaho	$2,057,564	$463,091	$2,520,655	$276,941
Illinois	$14,337,411	$2,928,482	$17,265,893	$1,631,360
Indiana	$7,283,994	$1,512,387	$8,796,381	$853,396
Iowa	$5,042,431	$1,062,355	$6,104,786	$606,160
Kansas	$2,673,077	$586,666	$3,259,743	$344,830
Kentucky	$4,816,099	$1,016,915	$5,833,014	$581,197
Louisiana	$1,666,297	$384,538	$2,050,835	$233,786
Maine	$3,205,253	$693,510	$3,898,763	$403,527
Maryland	$3,057,092	$663,764	$3,720,856	$387,185
Massachusetts	$6,978,497	$1,451,053	$8,429,550	$819,701
Michigan	$16,597,459	$3,382,225	$19,979,684	$1,880,634
Minnesota	$10,012,063	$2,060,094	$12,072,157	$1,154,291
Mississippi	$1,769,046	$405,166	$2,174,212	$245,119
Missouri	$6,425,237	$1,339,977	$7,765,214	$758,678
Montana	$2,508,101	$553,544	$3,061,645	$326,634
Nebraska	$2,570,131	$565,998	$3,136,129	$333,475
Nevada	$1,193,787	$289,673	$1,483,460	$181,670
New Hampshire	$1,614,893	$374,218	$1,989,111	$228,116
New Jersey	$5,862,784	$1,227,055	$7,089,839	$696,642
New Mexico	$2,029,053	$457,367	$2,486,420	$273,797
New York	$22,155,886	$4,498,175	$26,654,061	$2,493,707
North Carolina	$5,033,819	$1,060,626	$6,094,445	$605,210
North Dakota	$2,421,799	$536,218	$2,958,017	$317,115
Ohio	$14,694,891	$3,000,252	$17,695,143	$1,670,789
Oklahoma	$2,858,272	$623,847	$3,482,119	$365,256
Oregon	$3,021,339	$656,586	$3,677,925	$383,242
Pennsylvania	$15,807,875	$3,223,703	$19,031,578	$1,793,546
Rhode Island	$1,227,844	$296,511	$1,524,355	$185,426
South Carolina	$2,170,567	$485,779	$2,656,346	$289,405
South Dakota	$1,876,070	$426,653	$2,302,723	$256,923
Tennessee	$4,795,395	$1,012,758	$5,808,153	$578,913
Texas	$7,283,255	$1,512,239	$8,795,494	$853,314
Utah	$2,187,245	$489,127	$2,676,372	$291,244
Vermont	$1,353,557	$321,750	$1,675,307	$199,292
Virginia	$4,535,886	$960,657	$5,496,543	$550,290
Washington	$4,849,188	$1,023,558	$5,872,746	$584,846
West Virginia	$3,223,080	$697,089	$3,920,169	$405,493
Wisconsin	$9,245,317	$1,906,156	$11,151,473	$1,069,722
Wyoming*	$1,033,404	$253,203	$1,286,607	$158,317
American Samoa	$135,886	$77,282	$213,168	$64,990
Guam	$148,004	$79,714	$227,718	$66,324
Puerto Rico	$1,073,450	$265,514	$1,338,964	$168,397
Northern Mariana Islands	$138,180	$77,742	$215,922	$65,241
Virgin Islands	$156,980	$81,516	$238,496	$67,314
Northern Arapaho Grant	$96,506	$23,646	$120,152	$16,308
Total	$246,609,000	$52,311,000	$298,920,000	$30,000,000
Headquarters T&TA	$10,000,000			
Innovation	$19,560,000			
SERC	$6,520,000			
Vermiculite Study	$1,000,000			

* Wyoming's allocation is adjusted to account for Northern Arapaho's grant funds.

Weatherization Funding by Grantee | 2022 BIL Grants

BIL Grantee Allocations @ $3,168,000,000

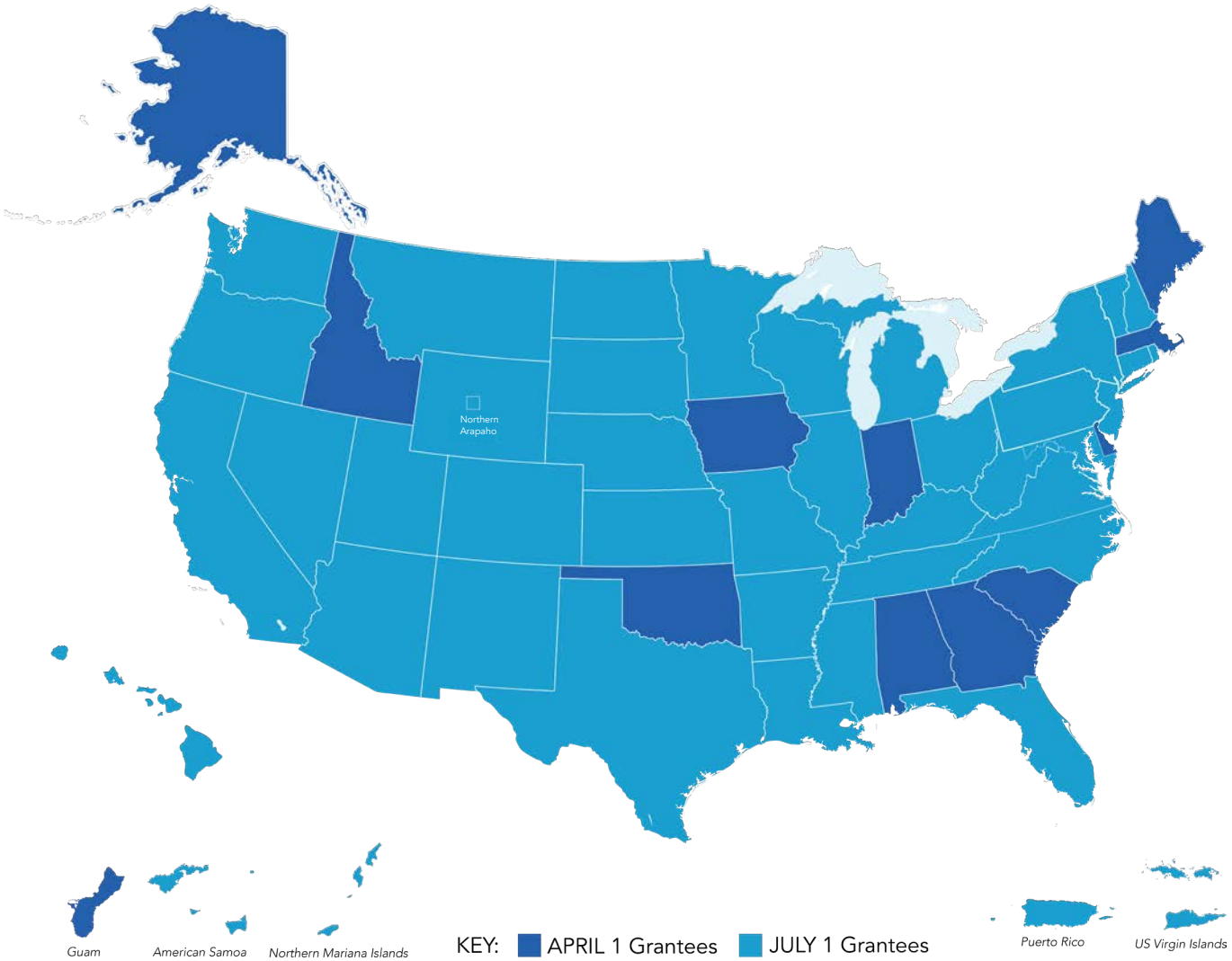
Grantee	BIL 2022 Program Allocation	BIL 2022 T&TA Allocation	BIL 2022 Total Allocation
Alabama	$39,172,211	$8,317,291	$47,489,502
Alaska	$15,141,254	$3,245,560	$18,386,814
Arizona	$39,196,246	$8,322,364	$47,518,610
Arkansas	$27,121,920	$5,774,078	$32,895,998
California	$103,430,113	$21,878,914	$125,309,027
Colorado	$41,298,185	$8,765,978	$50,064,163
Connecticut	$38,120,462	$8,095,319	$46,215,781
Delaware	$8,372,790	$1,817,076	$10,189,866
District of Columbia	$4,277,002	$952,661	$5,229,663
Florida	$77,286,789	$16,361,369	$93,648,158
Georgia	$69,578,999	$14,734,640	$84,313,639
Hawaii	$2,965,853	$675,943	$3,641,796
Idaho	$15,976,357	$3,421,808	$19,398,165
Illinois	$128,977,742	$27,270,739	$156,248,481
Indiana	$74,666,937	$15,808,449	$90,475,386
Iowa	$37,037,726	$7,866,808	$44,904,534
Kansas	$26,360,932	$5,613,472	$31,974,404
Kentucky	$42,848,924	$9,093,261	$51,942,185
Louisiana	$25,551,116	$5,442,560	$30,993,676
Maine	$25,758,760	$5,486,384	$31,245,144
Maryland	$37,701,515	$8,006,901	$45,708,416
Massachusetts	$66,112,802	$14,003,100	$80,115,902
Michigan	$151,219,951	$31,964,954	$183,184,905
Minnesota	$62,894,611	$13,323,901	$76,218,512
Mississippi	$23,144,369	$4,934,617	$28,078,986
Missouri	$63,746,415	$13,503,674	$77,250,089
Montana	$14,702,335	$3,152,926	$17,855,261
Nebraska	$20,211,702	$4,315,678	$24,527,380
Nevada	$20,439,353	$4,363,723	$24,803,076
New Hampshire	$14,974,146	$3,210,292	$18,184,438
New Jersey	$71,972,467	$15,239,781	$87,212,248
New Mexico	$18,179,888	$3,886,863	$22,066,751
New York	$239,184,271	$50,529,815	$289,714,086
North Carolina	$74,089,470	$15,686,575	$89,776,045
North Dakota	$12,453,240	$2,678,255	$15,131,495
Ohio	$142,301,424	$30,082,700	$172,384,124
Oklahoma	$34,911,883	$7,418,149	$42,330,032
Oregon	$25,229,238	$5,374,628	$30,603,866
Pennsylvania	$153,578,369	$32,462,698	$186,041,067
Rhode Island	$12,305,665	$2,647,109	$14,952,774
South Carolina	$35,120,135	$7,462,101	$42,582,236
South Dakota	$11,852,773	$2,551,526	$14,404,299
Tennessee	$54,743,623	$11,603,636	$66,347,259
Texas	$142,944,233	$30,218,365	$173,162,598
Utah	$17,869,184	$3,821,289	$21,690,473
Vermont	$12,105,630	$2,604,892	$14,710,522
Virginia	$54,119,682	$11,471,953	$65,591,635
Washington	$38,863,343	$8,252,104	$47,115,447
West Virginia	$23,807,862	$5,074,647	$28,882,509
Wisconsin	$78,411,728	$16,598,787	$95,010,515
Wyoming*	$5,751,371	$1,259,555	$7,010,926
American Samoa	$638,910	$184,843	$823,753
Guam	$1,034,741	$268,382	$1,303,123
Puerto Rico	$31,264,452	$6,648,359	$37,912,811
Northern Mariana Islands	$713,858	$200,660	$914,518
Virgin Islands	$1,327,942	$330,262	$1,658,204
Northern Arapaho Grant	$537,101	$117,626	$654,727
Total	$2,613,600,000	$554,400,000	$3,168,000,000
Headquarters T&TA	$125,000,000		
Innovation	$25,000,000		
SERC	$70,000,000		
Cross-Cutting Projects	$112,000,000		

* Wyoming's allocation is adjusted to account for Northern Arapaho's grant funds.

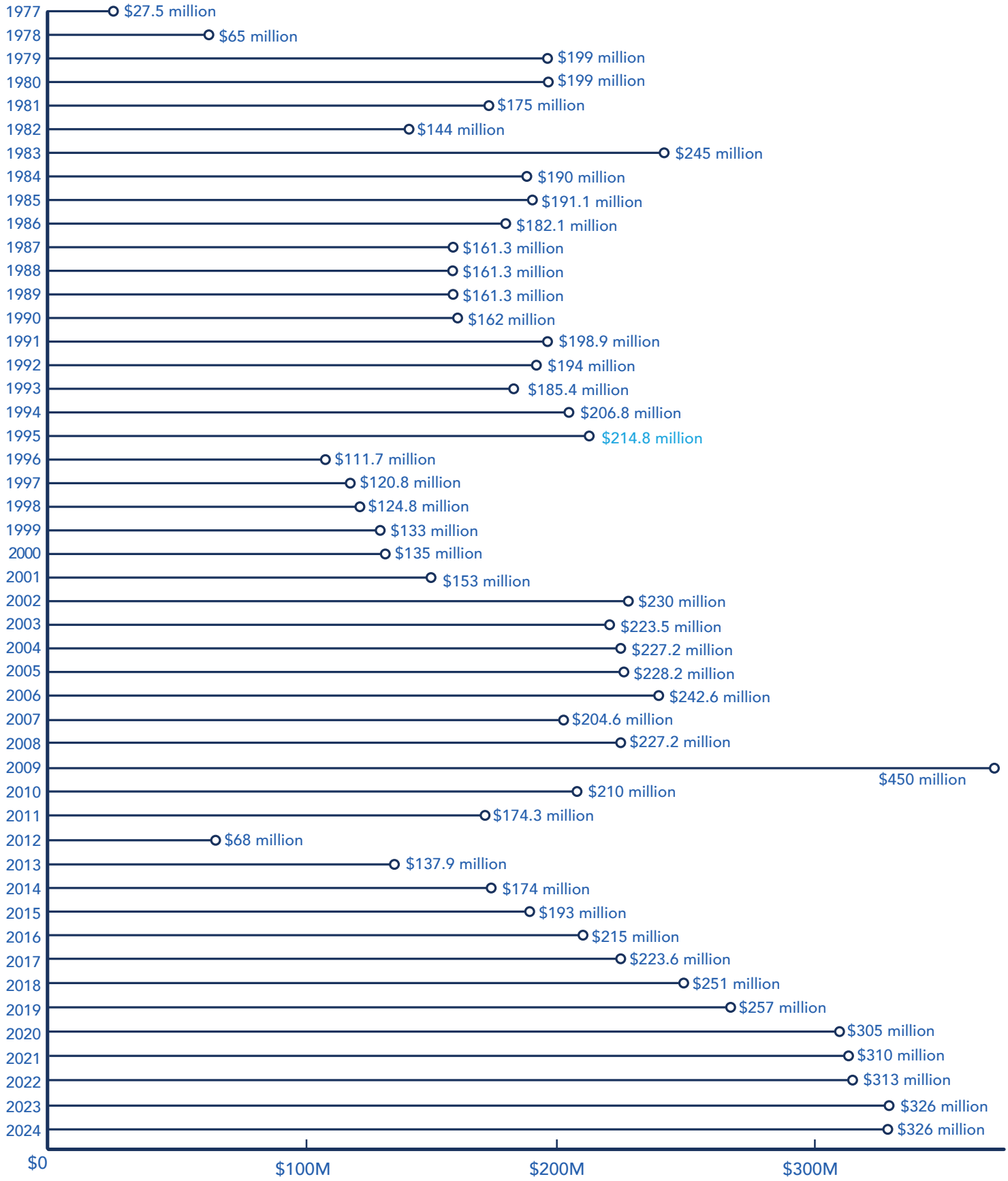
Grant Start Dates

DOE provides flexibility to the Program's Grantees to start their state program when it is best for their internal structure, such as aligning with their state fiscal year. As shown in Figure 4, the majority of states and the U.S. territories follow a July 1 - June 30 fiscal year, while 12 Grantees start their programs on April 1.

Figure 4: Weatherization Grantees Start Dates



DOE Appropriated Weatherization Funding by Year | 1977-2024



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TRAINING & TECHNICAL ASSISTANCE

Weatherization is an extensive process and requires continual training and support on the technical, management, and programmatic elements to ensure the Program is implemented effectively.

Through congressional appropriations, the U.S. Department of Energy's (DOE) Weatherization Assistance Program (WAP or Program) utilizes Training and Technical Assistance (T&TA) dollars to fund activities that benefit all Grantees and Subgrantees. Grantees are required to provide training and technical assistance to staff and contractors at both the Grantee and Subgrantee levels. DOE allows up to 20% of a Grantee's total funding to be reserved for these activities.

T&TA funds support WAP's operations on the national, state and local levels:

National Level | DOE T&TA Funds

- WAP Network Trainings
- Develop Training Curricula & Resources
- Evaluation Support
- Program Analyses
- Facilitation Services
- Management Analyses
- Management Assistance
- Technical Assistance Analyses
- Technical Support
- Special Reports and Projects
- Grantee Monitoring

State & Local Level | T&TA Funds

- Trainings for Grantee Staff & Local WAP Network
- Investments in Training Tools & Resources
- Technical Assistance to Subgrantees and contractors
- Subgrantee Monitoring
- Program Analyses and Evaluations
- Promotion of Advanced Techniques & Applications

In addition to national support, many Grantees partner with community college networks, state workforce investment boards, apprenticeship programs, and labor union programs to supplement their training resources. DOE seeks to facilitate and help replicate these kinds of partnerships to better engage education and labor organizations capable of providing high quality and consistent weatherization training to a larger audience over the long term.

Guidelines for Home Energy Professionals

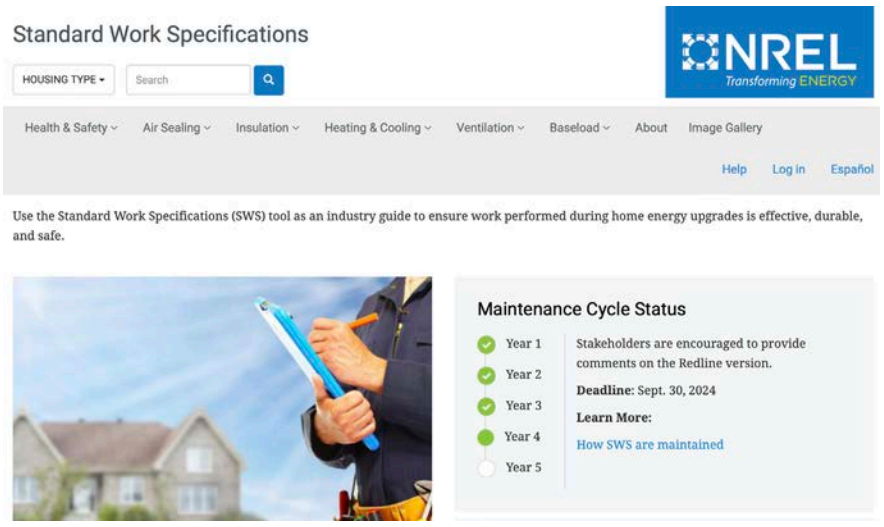
The Guidelines for Home Energy Professionals (GHEP) project is a suite of technical tools and resources developed to support the national residential energy upgrade industry and a skilled and credentialed workforce. The Guidelines were created to provide a high-quality baseline between states, agencies, employers, employees, and homeowners by incorporating input from 2,000 home performance industry members and 40 years of DOE weatherization experience.

GHEP supports and promotes high-quality work within the weatherization and home energy upgrade or home performance industry, based on the whole house approach to energy efficiency. A primary objective of the GHEP project is to create high quality workforce guidelines in accordance with industry best practices. These guidelines help practitioners to effectively optimize the use of taxpayer investment and improve realized efficiency outcomes for low-income Americans participating in WAP. While focused on WAP constituents, GHEP use has the potential to improve weatherization outcomes across efficiency programs. The Guidelines project includes:

- Standard Work Specifications for Home Energy Upgrades
- Home Energy Professional Certifications
- Accreditation of Energy Efficiency Training Programs

Standard Work Specifications for Home Energy Upgrades

The Standard Work Specifications (SWS) are a free online tool and industry guide that defines the minimum acceptable outcomes for home energy upgrades installed on single-family, multifamily, and manufactured housing. These specifications provide objective-based outcomes for energy efficiency measures installed by the home performance industry.



SWS address a complete set of energy efficiency measures that comprise a whole house energy upgrade, including air sealing, ventilation, insulation, and more. SWS provide the Program with a consistent definition of work quality by increasing the standardization of installation and technical monitoring outcomes across the industry.

By developing industry-approved installation specifications which define quality work, the SWS establishes residential energy upgrades as a national industry and provides a common benchmark against which consumers, financiers, and policymakers can measure performance of home energy-efficiency professionals.

Home Energy Professional Certifications

The Home Energy Professional (HEP) certifications validate a worker's capability to perform their specific job tasks effectively and consistently. The HEP certifications — funded by DOE, developed by National Renewable Energy Laboratory (NREL) and administered by International Standards Organization (ISO) accredited certifying organizations — are intended to complement one another and provide a career path in the home energy upgrade industry.

These advanced certifications are job-specific and require a trained and experienced professional to demonstrate the comprehensive knowledge, skills, and abilities to be successful in a specific role. Candidates must have job experience as a prerequisite in addition to passing both a written and practical exam.

Accreditation of Energy Efficiency Training Programs

High-quality weatherization requires well-trained workers. Although Grantees and Subgrantees can receive excellent, Specific Training from many different providers, only accredited training programs can provide the Comprehensive Training required to become a HEP. Comprehensive training must be administered by, or in cooperation with, a training program that is accredited by a DOE-accepted credentialing body for the Job Task Analyses (JTA) being taught.

Currently, the only DOE-accepted credentialing body is the Interstate Renewable Energy Council (IREC). DOE, working with NREL and industry subject matter experts, developed the JTA to set a foundation for accredited training curricula development and execution. The JTA catalogs the Knowledge, Skills, and Abilities (KSA) that a practitioner needs to perform a given job effectively and safely.

The JTA are used by training providers to develop coursework that can be verified and accredited by a third-party organization. Verifying and accrediting training programs based on the JTA ensures that consistent and high-quality training programs are now available across the country (Table 2).

Table 2: Current IREC Accredited Training Centers by HEP Designation

Name	Location	Retrofit Installer Technician	Crew Leader	Energy Auditor	Quality Control Inspector
Association for Energy Affordability, Inc. (AEA)	Bronx, NY	✓	✓	✓	✓
Building Performance Center	Bellingham, WA		✓	✓	✓
Community Housing Partners (CHP) Energy Solutions, LLC	Christiansburg, VA	✓	✓	✓	✓
CivicWorks, Inc.	Baltimore, MD	✓			
Clean Energy Center at Penn College	Williamsport, PA	✓	✓	✓	✓
Coalition for Ohio Appalachian Development (COAD) Ohio Weatherization Training Center	Athens, OH	✓	✓	✓	✓
Energy Coordinating Agency of Philadelphia, Inc.	Philadelphia, PA	✓		✓	✓
Everblue	Davidson, NC			✓	✓
FSL Southwest Building Science Training Center	Phoenix, AZ	✓	✓	✓	✓
Indiana Community Action Association (INCAA)	Indianapolis, IN	✓	✓	✓	✓
Indoor Climate Research & Training, University of IL	Champaign, IL			✓	✓
Montana Weatherization Training Center	Bozeman, MT	✓	✓	✓	✓
MiTEC Training and Education Center	Lansing, MI		✓	✓	✓
New York State Weatherization Directors Association (NYSWDA)	East Syracuse, NY			✓	✓
Oklahoma Weatherization Training Center	Edmond, OK	✓	✓	✓	✓
Oregon Training Institute	Salem, OR			✓	
Residential Energy Efficiency - Training Initiatives	Frankfort, KY	✓	✓	✓	✓
Richard Heath and Associates (RHA) Inc.	Chico, CA			✓	✓
Santa Fe Community College	Sante Fe, NM	✓	✓	✓	✓
Slipstream, Inc.	Madison, WI	✓	✓	✓	✓
South Middlesex Opportunity Council (SMOC)/Green Jobs Academy	Marlboro, MA	✓	✓	✓	✓
State of Utah	Clearfield, UT	✓	✓	✓	✓

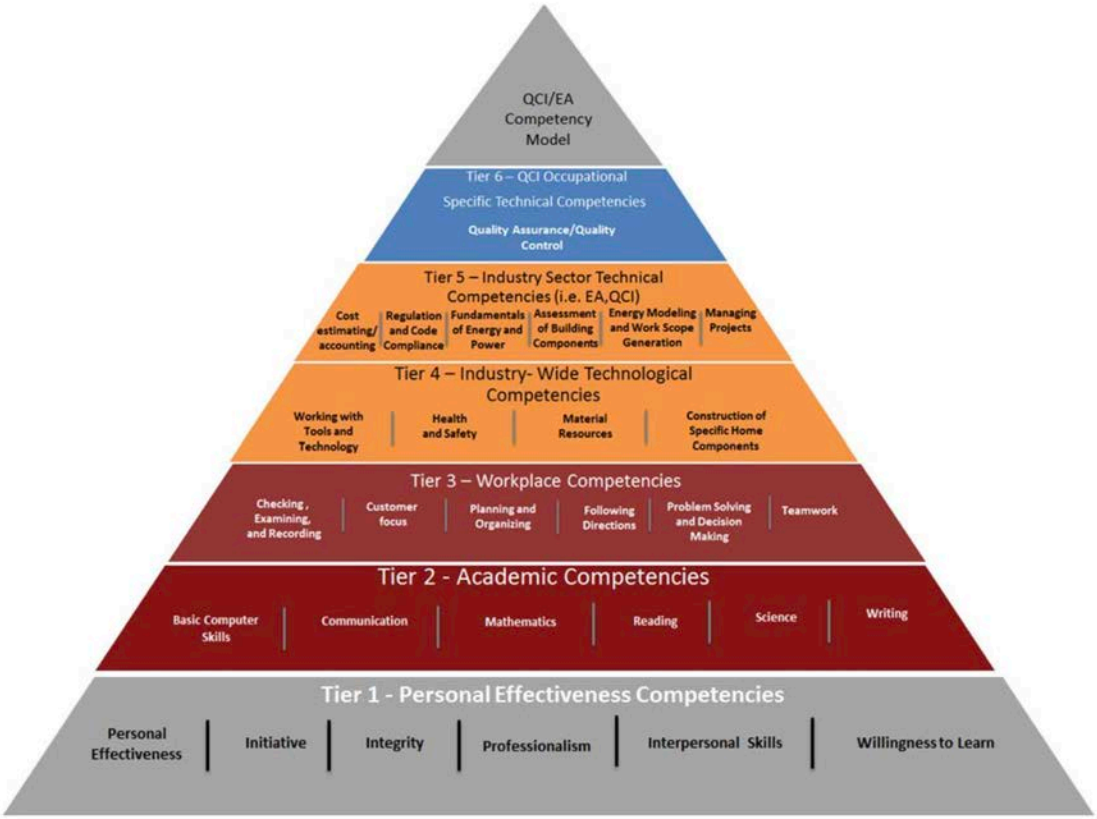
Competency Models

In 2018, DOE collected feedback from the WAP network and home performance industry on the successes and barriers to implementing the Quality Control Inspector (QCI) certification program. The most frequently cited barriers were regarding the QCI JTA, a certification which requires Energy Auditor (EA) certification as a prerequisite. The large range of competencies, required soft skills, and undefined competency levels made it difficult for Weatherization Training Centers (WTC) to develop a curriculum and for the exam developers to create questions that assessed skills adequately.

To assist in the identification of soft skills, foundational competencies, and to define the levels of KSA required to successfully perform the tasks defined in the QCI and EA JTA, DOE developed a QCI and EA Competency Model, drawing from the Department of Labor's (DOL) Competency Model Clearinghouse and aligning with the "Residential Construction Competency Model" and the "Advanced Commercial Building Competency Model" where appropriate.

A competency model is a collection of competencies that together define successful performance in a particular work setting. An illustration of the QCI and EA Competency Model is shown here (**Figure 5**).

Figure 5: QCI and EA Competency Model



Installer Badges Toolkit

The Installer Badges Toolkit provides a flexible, customizable, and voluntary approach to training and skills recognition for WAP implementers, utility programs, private-sector workers, and contractors.

In 2018, DOE, along with the Crew Leader scheme committee, determined the Retrofit Installer Technician (RIT) JTA could be eliminated, and its tasks inserted in the Crew Leader JTA. The RIT job tasks became the basis of the Installer Badges.

Currently, there are 25 badges, each representing a different energy efficiency task that an installer could perform on a home. Each badge defines the desired outcome, criteria to verify, applicable material requirements, and references to SWS or other relevant standards.

The badges provide a consistent approach to training by ensuring installers in different regions are learning the same skills nationwide. Organizations can also customize their Badges Program by choosing only those badges that are relevant to their needs.

Weatherization Job Aids

Weatherization Job Aids are step-by-step visual guides created to assist HEP with effective, durable, and safe energy efficiency upgrades. Job Aids are organized by measures found in single-family and manufactured homes, outlining the individual steps for each job an installer may encounter in attics, subspaces, main floors and more. The Job Aids align closely with the Badges Program, permitting training providers to modularize the training experience, allowing students to learn, and be evaluated in both the field and the classroom.

Quality Work Plan

The Quality Work Plan (QWP) defines what is required when federal dollars are used to perform weatherization services and leverages the resources developed through the GHEP project. The QWP was created to ensure the WAP network has a common set of expectations for the quality of work and training across the program. The goals of the QWP include:

- Standardize expectations at all levels of monitoring.
- Define and encourage high quality training.
- Standardize inspection methods.
- Set national standards for work quality.
- Encourage the use of portable and nationally recognized credentials for weatherization workers.

This QWP defines how home energy upgrade work should be done and provides a prescription for communication, training, and inspection of work throughout the WAP network.

Effective Management | Quality Management Plan

DOE works to effectively manage the administrative, programmatic, and technical aspects of weatherization. As such, identifying the KSAs necessary to perform the role of a Grantee or Subgrantee are crucial.

One aspect of effective management is keeping consistent records. 10 CFR 440.24 requires, among other specific recordkeeping requirements, Grantees and Subgrantees administering WAP keep records for an effective audit and performance evaluation.

DOE developed a framework to assist Grantees and Subgrantees in keeping records consistently and providing access to the documentation supporting a weatherized unit.

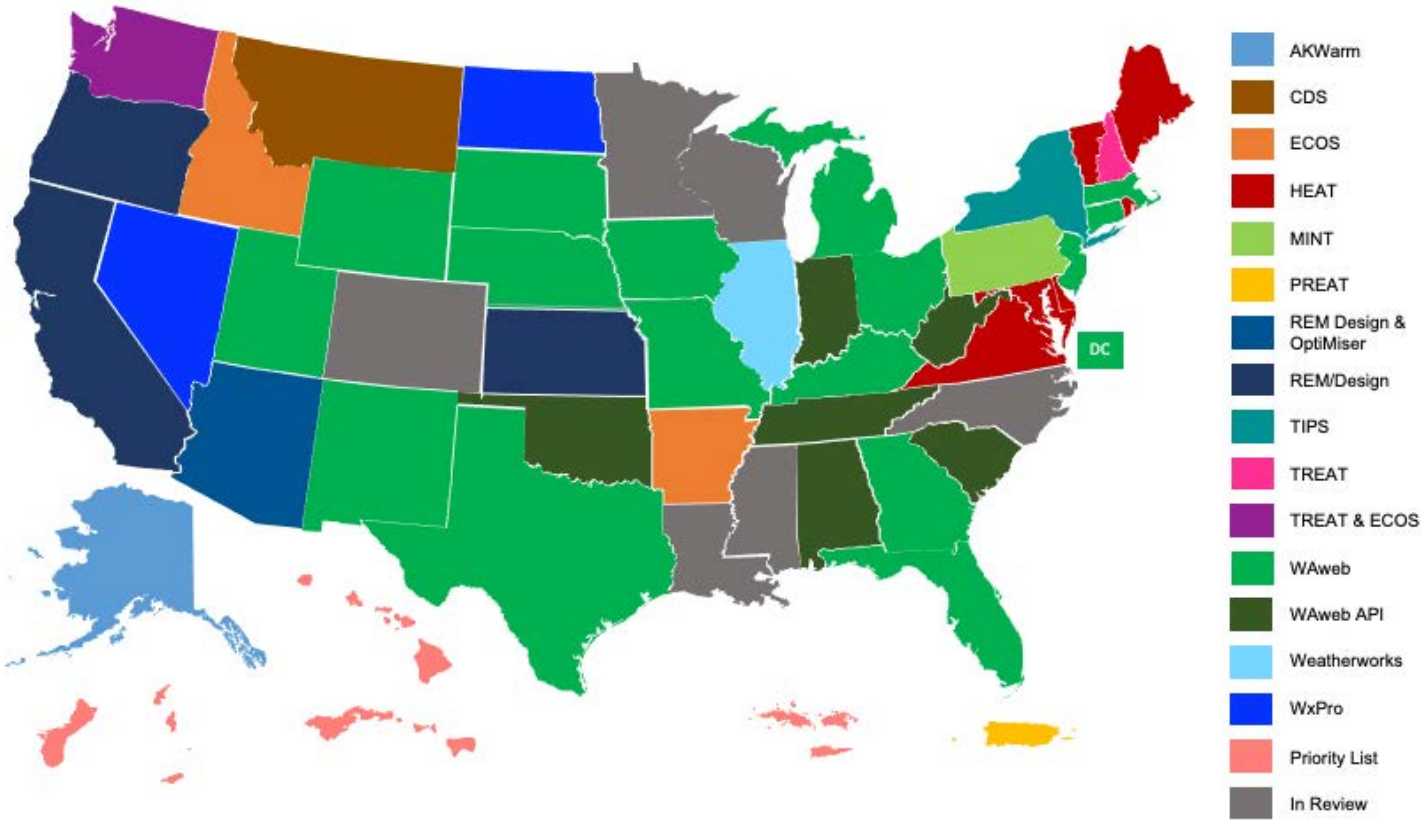
Grantees and Subgrantees continue to execute DOE's expectation of high-quality management and proper documentation of weatherization resources by demonstrating:

- Program rules are followed (e.g., eligibility requirements are being followed).
- Appropriate cost-effective measures are being installed (e.g., energy audit results are consistent with the work order generated and the invoice costs are consistent with those estimated in the audit).
- Health and Safety issues are treated according to program guidance (e.g., Certified Renovator is assigned to lead-paint jobs).
- Inspections occur as required (e.g., 100% of the units are inspected and the post-inspection checklist includes the inspection of the audit assessment).

Procurement Resources

To assist Grantees on financial and administration compliance, DOE released Memorandum 115: Weatherization Procurement Resources in September 2023. The purpose of the Procurement Resources is to provide examples, for illustrative purposes only, of documents that can be used in purchasing services and/or materials, such as a step-by-step to procurement checklist, Request for Quotation template, and specification examples.

Figure 6: Approved Energy Audit Tools by Grantee, for Single Family Housing Stock



Energy Audits Procedures

DOE requires all WAP Grantees to utilize computerized energy audits specific for single-family, manufactured, and multifamily dwellings to determine the most cost-effective energy conservation measures (ECM) to install. Per 10 CFR 440.21(i) and Weatherization Program Notice 23-6: Revised Energy Audit Approval Procedures, Related Audit and Material Approvals Including Fuel-Switching and Solar PV, WAP Grantees are required to obtain approval for their energy audit tools and priority lists **every five years**.

Grantees are permitted to develop their own energy audit software or purchase commercially available software provided that DOE has reviewed and approved the software as compliant with Program rules. In addition, DOE sponsored the development of the Weatherization Assistant Suite of energy audit tools, which includes the National Energy Audit Tool (NEAT), Manufactured Housing Energy Audit (MHEA), Multifamily Tool for Energy Audits (MulTEA), as well as the Health and Safety Audit to provide Grantees with access to a computerized tool to select cost-effective measures for all common housing stock. **Figure 6** identifies which energy audit tool or priority list each state or territory is currently approved to use for single family housing stock (as of October 2023).

Workforce Development

With the addition of the BIL funding, DOE anticipates significant opportunities in attracting, training, and retaining new employees and contractors to WAP. BIL funds provide an opportunity to diversify a high-quality and well-trained WAP workforce.

Grantees are encouraged to attract, retain, or develop a local workforce needed to enable their project goals. This will include partners, unions, community colleges, potential supportive services, and use of Department of Labor Registered Apprenticeships or other joint, labor-management partnerships training programs, or other high quality training models. Grantee T&TA plans must ensure WAP workers receive comprehensive training on a regular basis, as defined by the Grantee, for the position in which the worker is employed.

DOE will continue to develop resources to address additional barriers and improve ability to increase workforce expansion and diversity. Further, DOE encourages Grantees to braid funds in on-going operations and maintenance, and to increase deployment of additional technologies, workforce expansion, and project construction.

The barriers faced in WAP are complex and the solutions even more so, but DOE is committed to improving program implementation at all levels. Given the project's success in 2019, DOE has worked with NREL to offer additional Continuous Improvement Workshops (currently two to three events each year). These are often virtual events and require admission through an NREL application process.

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MONITORING

Monitoring is one of the primary ways the U.S. Department of Energy's (DOE) Weatherization Assistance Program (WAP) ensure the public purpose of the Program is being met at all times. 10 CFR 440.23, Oversight, Training and Technical Assistance requires:

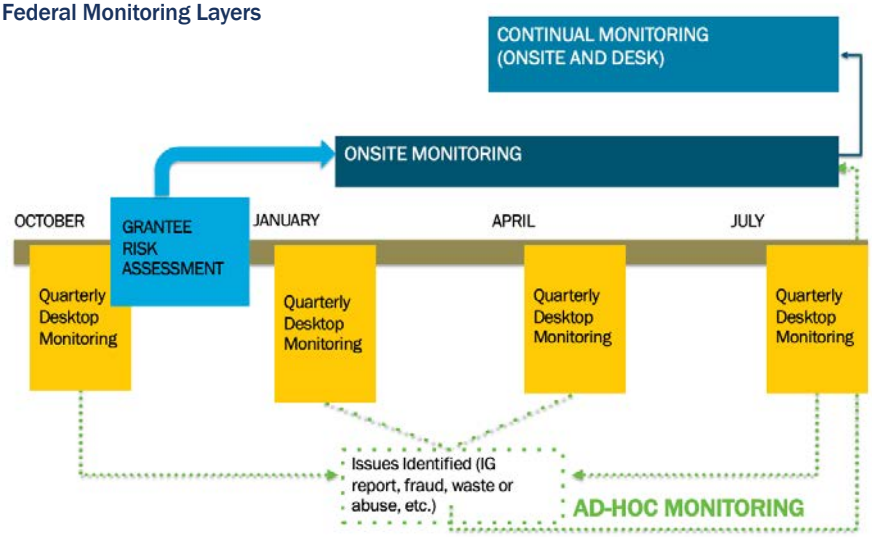
- DOE to monitor and evaluate the operation of projects carried out by Community Action Agencies (CAA).
- In addition, DOE shall also carry out periodic evaluations of a program and weatherization projects that are not carried out by a CAA and that are receiving financial assistance under this part.

The Weatherization team at DOE has developed an extensive and comprehensive monitoring system to review programmatic and technical elements to ensure funds are used in accordance with Program guidance, rules and regulations. Monitoring assists DOE to:

- Ensure proper and timely use of Program funds and realization of expected benefits.
- Provide transparency and accountability.
- Provide quality control.
- Provide Grantees technical assistance and training.

Figure 7 details DOE's monitoring activities that include quarterly desktop monitoring, onsite monitoring and ad hoc monitoring in addition to completing an annual Grantee risk assessment.

Figure 7: Federal Monitoring Layers



Risk Assessment

At the beginning of the fiscal year, WAP performs an annual Risk Assessment on each WAP Grantee to systematically identify a level of risk – high, medium or low - based on the following key programmatic and technical areas:

Programmatic Risk Assessment	Technical Risk Assessment
• Total Funds • Unexpended Funds • Active Awards & Extensions • Program Manager Experience • Programmatic Staff Vacancies • Production Analysis • Report History • Single Audit Review • DOE Programmatic Monitoring Action Items • Prior Subgrantee Unresolved Monitoring Action Items	• QCI Technical Grantee Staff • Last Onsite Monitoring Visit • DOE Technical Monitoring Action Items • Energy Audit Compliance • Field Guide Compliance • T&TA • Health & Safety

Each Programmatic and Technical risk category receives a risk score, ranging from 1 (low risk) to 7 (highest risk), based on the identified criteria. Once all the categories are scored, the Programmatic, Technical and Overall Risk Assessments (combined Programmatic and Technical scores) are calculated.

Average Risk Score	Recommendation
6.0 and higher	High Risk – monitoring recommended
3.0 - 5.9	Medium Risk – monitoring may be necessary
Below 2.9	Low Risk – monitoring not necessary at this time

Those Grantees that fall within the **medium or high-risk categories** are recommended for monitoring during the current fiscal year.

Onsite Monitoring

Per 10 CFR 440.23(b), the Program is required to perform onsite monitoring at the Department's discretion. Each year, the Program identifies what Weatherization Grantees require an onsite monitoring visit via the Risk Assessment results. Depending on the Grantee's needs or issues, onsite monitoring can include either Programmatic, Technical or both (Comprehensive).

Onsite monitoring includes visits to selected Subgrantees' offices to allow the Programmatic Project Officers to verify program elements, such as inventory, financial management, procurement, and client file management. In addition, Technical Project Officers will review completed and in-process units and observe how the Grantee monitors their local providers and provide technical assistance when needed.

A monitoring assessment report is issued after the onsite monitoring visit to provide feedback to the Grantee on where they are excelling and where there is room for improvement. If deficiencies are identified, action items (finding, concern or recommendation) or a Corrective Action Plan can be issued, depending on the severity of the deficiency.

Desktop Monitoring

Both Programmatic and Technical Project Officers perform quarterly desktop monitoring of program and fiscal reports. Desktop monitoring provides:

- Verification the Grantee is in compliance with WAP requirements.
- Opportunity to resolve any outstanding monitoring assessments (findings, concerns, recommendations) and issues.
- Identification of possible training and technical assistance needs.
- Opportunity to document WAP best practices.

Ad Hoc Monitoring

WAP Project Officers perform ad hoc monitoring throughout the program year. This type of monitoring is driven by a Grantee's performance and can include an in-depth analysis of a key program component or process (e.g., policies and procedures, energy audit modeling, procurement, training or waste, fraud and abuse). ad hoc monitoring:

- Initiates when a specific trend or deficiency is identified through desktop and/or onsite monitoring.
- Includes additional ongoing desktop or onsite monitoring driven by Grantee performance or concerns surrounding possible waste, fraud or abuse.

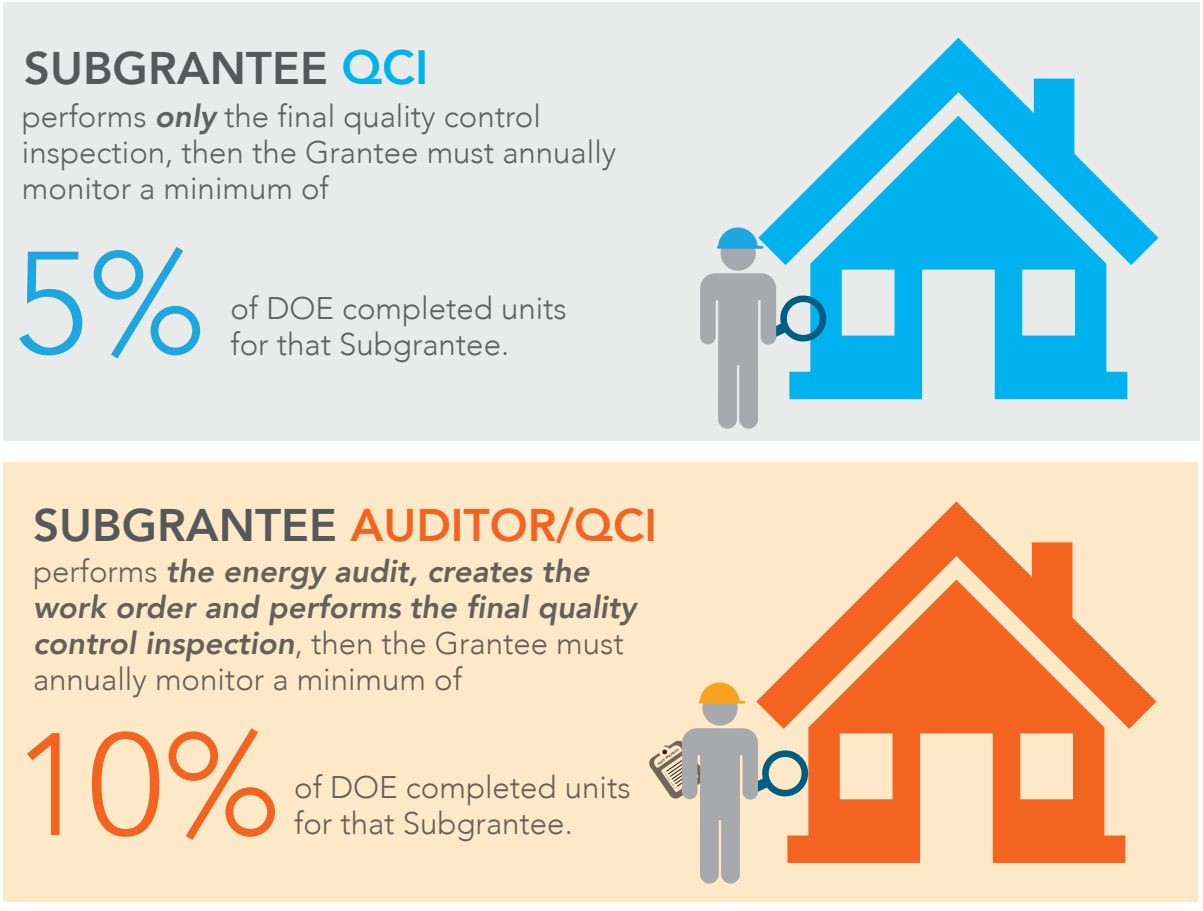
Grantee Oversight

Per WPN 24-4 and in accordance with 10 CFR 440, Grantees are required to conduct comprehensive onsite monitoring at least once a year for each of their Subgrantees. Within their monitoring efforts, Grantees review:

- Programmatic expenditures.
- Eligibility requirements.
- Percentage of dwelling units weatherized.
- Production rates and types of units weatherized.
- Procurement of material and labor.
- Payments to vendors and reports for reimbursement.
- Material standards and installation.

Per WPN 22-4, Grantees are required to follow a DOE prescribed **Quality Control Inspector (QCI)** policy to determine the percentage of weatherized units to monitor annually at each Subgrantee. Figure 8 provides a quick overview two scenarios of the QCI policy.

Figure 8: Subgrantee QCI Policy and Monitoring Requirements



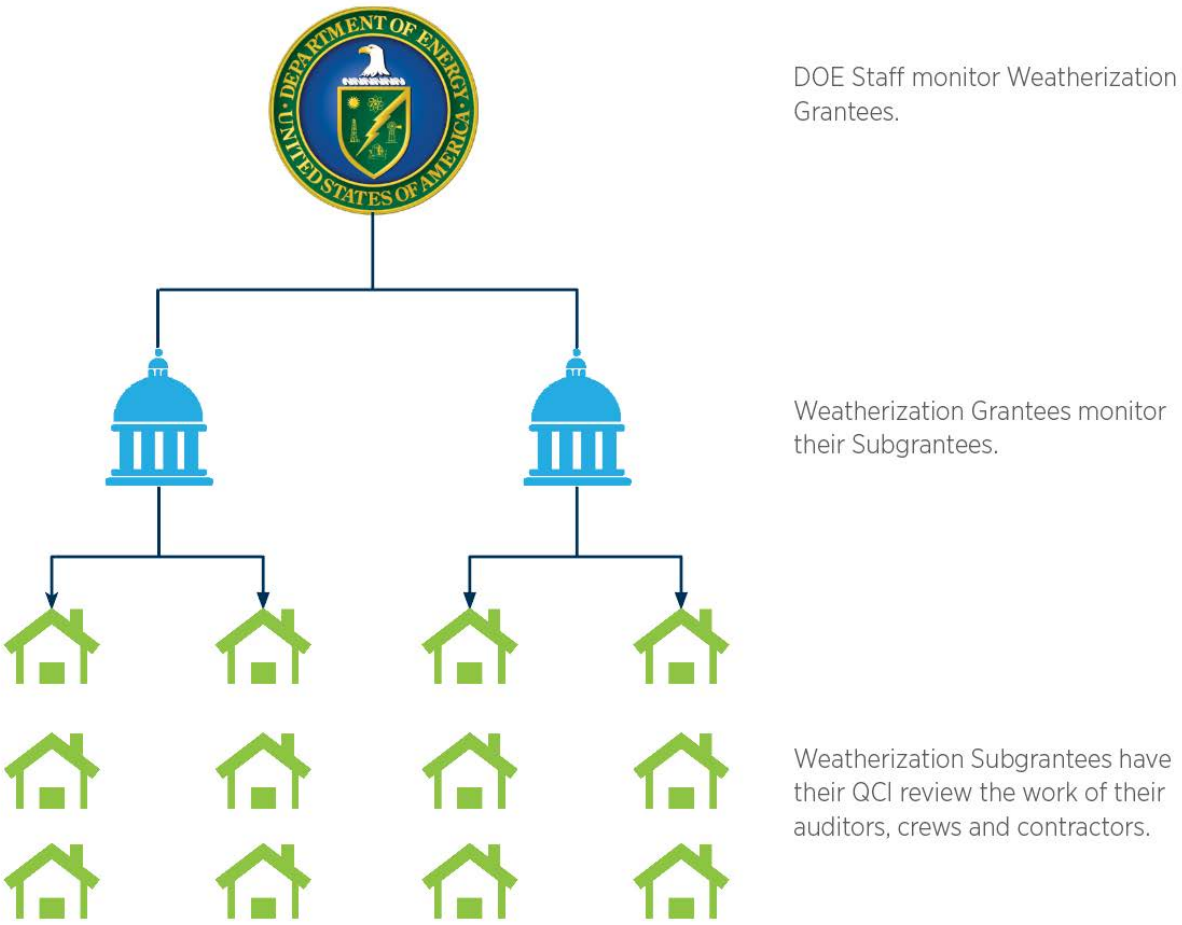
Grantees are strongly encouraged to review "in progress" units beyond the required percentage of completed units, in order to assess:

- Quality and compliance.
- Appropriate and allowable materials.
- Appropriateness and accuracy of energy audits (no missed opportunities).
- Comprehensive final inspections.
- Safe work practices, such as lead safe weatherization protocols.
- Other factors that are relevant to onsite work.

Subgrantee Oversight

Every home weatherized must receive a quality control inspection for workmanship and appropriateness prior to reporting to the Grantee and DOE.

Figure 9: WAP Monitoring Layers



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HEALTH AND SAFETY

The health and safety of clients and crews are paramount in the U.S. Department of Energy's (DOE) Weatherization Assistance Program (WAP or Program). Expenditures can be utilized to cover the cost of eliminating energy-related health and safety hazards as necessary before, or resulting from, the installation of Energy Conservation Measures (ECM). In addition, WAP Subgrantees often use other funding sources to correct problems that are beyond the scope of allowable DOE weatherization expenditures.

WAP local providers install only energy-related health and safety measures and are instructed to report health and safety problems that cannot be remedied or mediated by weatherization activities to the appropriate state agency or the U.S. Environmental Protection Agency (EPA).

Allowable energy-related health and safety activities include, but are not limited to:

- Combustion appliance safety testing and repair.
- Electrical repair (ensuring code compliance when insulating knob-and-tube wiring and repairing overloaded electrical circuits).
- Assessment of fire hazards (identifying inadequate combustion appliance clearances and creosote build-up).
- Addressing indoor air quality issues.
- Lead-Safe Weatherization (limited to procedures for installing Weatherization measures without increasing the existing risk of exposure to lead but does not include lead abatement).

Weatherization Readiness and Deferrals

WAP, at its core, is an energy efficiency program. The Program's success is largely measured in terms of energy saved. Because of this, the list of issues WAP can address with DOE Weatherization funds is limited. However, the Program recognizes that homes and buildings work as a system of interrelated parts and applies the "House as a System" methodology to assess and treat homes. While conducting initial audits, technicians often discover issues with a home that, if not repaired, may prevent, or hinder the performance of ECM.

For instance, DOE understands it is not effective to insulate an attic if a home's roof leaks and will degrade the insulation's performance. Therefore, the roof must be repaired before any insulation is installed, or the home must

be deferred from receiving weatherization services until the roof is addressed. In recognition of the limitations of WAP funding and the funding possibilities outside of Weatherization, DOE introduced the term "weatherization readiness".

In Fiscal Year (FY) 2022, Congress provided the first Weatherization Readiness appropriation and DOE developed a **Weatherization Readiness Fund (WRF)** that is used by the WAP network to address necessary repairs (e.g., health and safety issues, structural issues, etc.) in dwellings that have been deferred from receiving weatherization services. This funding is specifically targeted to reduce the frequency of deferred homes that require services outside the scope of weatherization before the weatherization services can commence. Units receiving WRF must result in a DOE completion, defined as:

"*A dwelling on which a DOE-approved energy audit or priority list has been applied, at least one (1) DOE funded allowable energy conservation measure is installed, and weatherization work has been completed. As funds allow, the measures installed on this unit and paid for with DOE funds have a Savings-to-Investment Ratio (SIR) of 1.0 or greater, but also may include any necessary energy-related health and safety measures, in accordance with 10 CFR 440.21(d): "The cost of incidental repairs must be included in the cost of the package of measures installed in a dwelling and receives a final inspection.*"

As part of WRF funding, each Grantee must:

- Develop a WRF Plan for DOE approval.
- Track the WRF funds for each building and unit, capturing measures/repairs and associated costs.
- Monitor these funds as part of the Grantee's annual monitoring.

Incorporating the principle of **"weatherization readiness"** into WAP is a three-fold approach:

- Identification of homes with significant repair and health and safety needs that are deferred or may be deferred from WAP service.
- Identification on whether WRF may be used on homes that are not "weatherization ready" to correct the situation and/or work with community partners to address repair needs.
- Tracking deferrals to identify rates of deferral and the most common causes for deferral.

The Benefits:

Reduce Deferrals: By utilizing the three-fold approach to identify and apply WRF to avoid deferrals, the Program can help those most in need by improving equity of service delivery without the additional administrative complexities associated with braiding funds from other sources. Research by the Federal Reserve Bank and PolicyMap illustrates home repair needs disproportionately impact low-income households and specifically black, brown, and native households. Homes that can be made "weatherization ready" help Subgrantees avoid unnecessary deferrals.

Improve efficiency of service delivery: By ensuring the screening process identifies issues that cannot be addressed with DOE formula funds or WRF, Subgrantees can reduce those costs dedicated to initial energy audits on homes that will never be weatherized due to such deficiencies (in the program funding as well as the home itself). Time spent scheduling and conducting the initial site data collection for an energy audit is money invested in that home. DOE's aim is that every dollar invested goes to the benefit of the eligible client, which only happens if the home gets weatherized.

Improve leveraging capacity: By tracking deferrals, Grantees gain a clearer understanding of the most common causes for deferrals in their service territories and can pursue funding to address those specific needs. For example, in many of the cold climate states, rehabilitation funds for roof repair would bring a sizeable amount of older, energy inefficient housing stock into weatherization readiness. Equipped with real data, Grantees improve their ability to secure funding from other sources in addition to DOE funding.

Non-Energy Impacts

In FY 2020, Congress amended the authorizing statute for WAP and included direction for the Program to consider Non-Energy Benefits (NEB) also referred to as Non-Energy Impacts (NEI) from weatherization. NEI are additional effects for participants in energy efficiency beyond the energy savings gained from installing energy efficiency measures.

DOE issued WPN 22-10 Revised, in which DOE encourages WAP Grantees to consider adopting two types of NEI from weatherization in the determination of measures to be implemented in a home retrofit. DOE provided methods and metrics for Grantees to use in the evaluation of two types of NEI in any energy audit tool that is used to identify the most cost-effective ECM to install in a dwelling unit:

1) **Social Cost of Carbon**, established using national emissions.

2) **Water Usage Reduction**, based upon a site-specific utility cost for water savings.

DOE continues to investigate and develop other methods for valuing household health and safety benefits and other NEI resulting from weatherization for inclusion in the energy savings calculations in the future.

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INNOVATION GRANTS

The U.S. Department of Energy's (DOE) Weatherization Assistance Program (WAP) offers competitive innovation grants to disseminate best practices and scale innovation to the formula WAP.

Sustainable Energy Resources for Consumers Grants

The competitive Sustainable Energy Resources for Consumers (SERC) grants provide opportunities for local WAP providers to expand the Program to include materials, renewable, and domestic energy technologies not traditionally included within the WAP scope while reducing energy costs for low-income households.

SERC grants are authorized per Title IV of the Energy Independence and Security Act of 2007 (EISA), Section 411(b) (Pub. L. 110–140, title IV, §411(b), Dec. 19, 2007, 121 Stat. 1600.

If WAP-appropriated funds exceed **$275 million**, the DOE Secretary may elect to use up to two (2) percent of the amount of funds made available for SERC grants. This provision authorizes local weatherization providers to expand the Program for "*materials, benefits, and renewable and domestic energy technologies not currently covered.*"

An illustrative list of materials and technologies includes, but is not limited to, the following:

- Air source heat pumps
- Solar photovoltaic systems
- Solar hot water heaters
- Solar thermal air systems (space heating)
- Distributed energy storage
- Heat pump water heaters
- Geothermal heat pumps
- Cool roofs

SERC Grants | Key Benefits

The WAP SERC grants are not subject to the **Average Cost per Dwelling Unit (ACPU)** or the **Savings to Investment Ratio (SIR)** requirements of the WAP formula program. The requirements under 10 CFR 440.18 and 10 CFR 440.21 apply only to funds provided under the formula WAP grant.

Funding and Projects

Through Fiscal Years 2020-2023 appropriations, DOE reserved approximately **$23 million for SERC Grants**. In addition, DOE reserved **$70 million** for SERC grants from the $3.5 billion appropriated for WAP through the Bipartisan Infrastructure Law (BIL).

SERC Funding	PY 2022 Round 1	PY 2023 Round 2	BIL Funds
Total Available Funding	$6 million	$15.2 million	$53.6 million
Total Grants Awarded	5 grants	10 grants	14 grants

Enhancement & Innovation Grants

Within Section 1011(e) of the Consolidated Appropriations Act, 2021, (Public Law 116-260, signed December 27, 2020), Congress directed DOE to establish a competitive program for WAP Enhancement & Innovation (E&I).

The focus of the WAP E&I grants are to:

- Increase the number of dwelling units occupied by low-income persons that receive weatherization assistance by making such dwelling units weatherization-ready.
- Promote the deployment of renewable energy in dwelling units that are occupied by low-income persons.
- Ensure healthy indoor environments by enhancing or expanding health and safety measures and resources available to dwellings that are occupied by low-income persons.
- Disseminate new methods and best practices among entities providing weatherization assistance.
- Encourage entities providing weatherization assistance to hire and retain employees who are individuals –
    - From the community in which the assistance is provided; and
    - From communities or groups that are underrepresented in the home energy performance workforce, including religious and ethnic minorities, women, veterans, individuals with disabilities, and individuals who are socioeconomically disadvantaged.

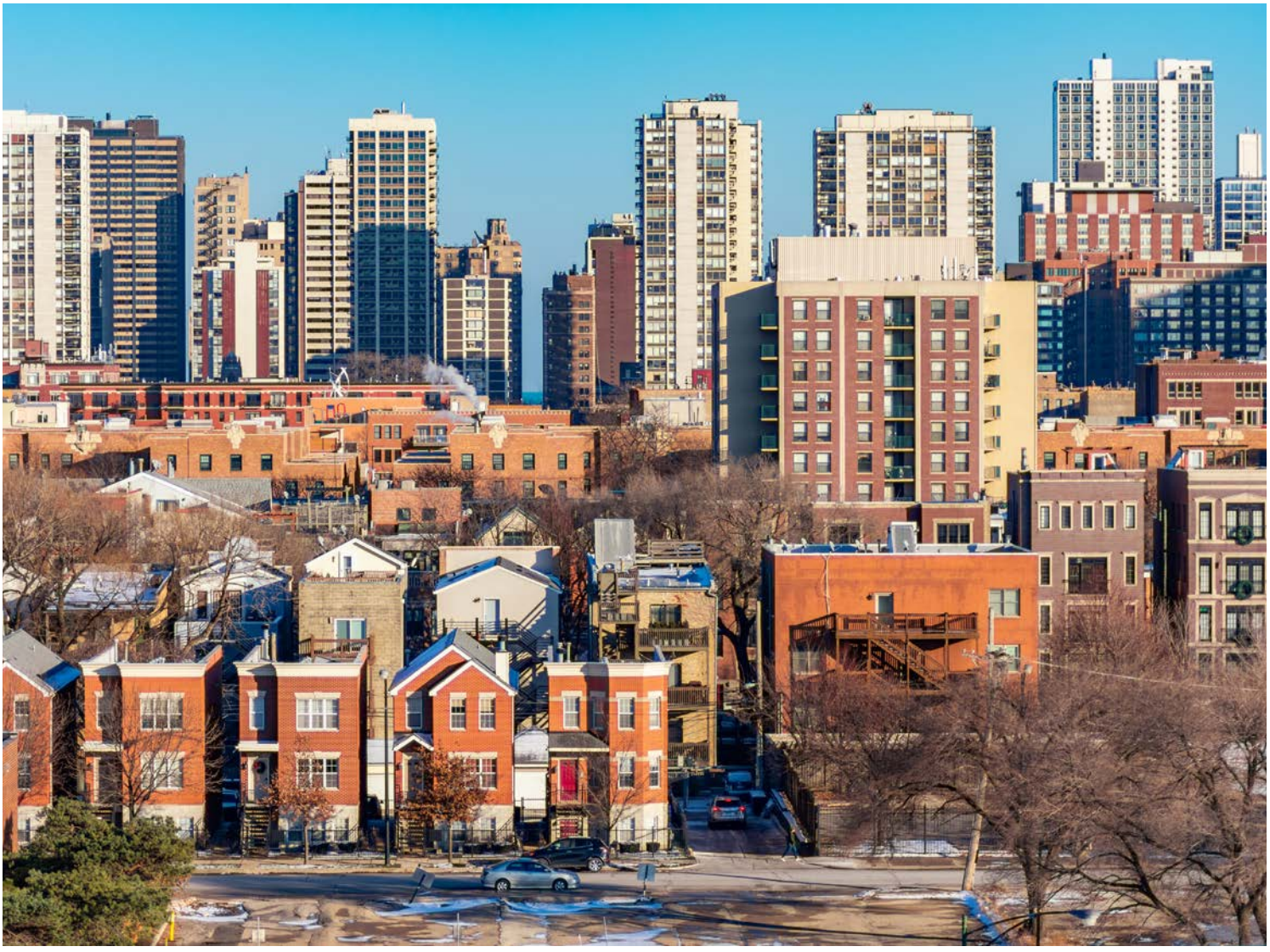
The WAP E&I competitive grants are open to current WAP Grantees and Subgrantees, and other nonprofit entities. Through partnerships and leveraging of the DOE WAP and other funding sources, the E&I projects enable deep energy retrofits of low-income housing.

E&I Grants | Key Benefits

The WAP E&I grants are not subject to the **ACPU** and **SIR** requirements of the WAP formula program. The requirements under 10 CFR 440.18 and 10 CFR 440.21 apply only to funds provided under the formula WAP grant.

Funding and Projects

Within the first round of E&I grants, **$37.9 million were awarded to 21 organizations** with a maximum award amount of $2 million. Through the BIL funding, WAP awarded 13 projects totaling approximately **$25 million**.



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