

# Weatherization Assistance Program Briefing Book

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Prepared by the Weatherization Assistance Program

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## EXECUTIVE SUMMARY

### Mission

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

**Weatherization has operated for over 40 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."*

The Program provides energy efficiency services to an average of **35,000 homes annually** with congressional appropriated funds while reducing annual energy costs by an average of **\$283 or more per household**<sup>1</sup>. Through the [American Recovery and Reinvestment Act of 2009](#) (the Recovery Act) (Public Law 111-5), the Program weatherized over **1,000,000 homes** during three years of the Act<sup>2</sup>.

These low-income households are often on fixed incomes or rely on income assistance programs and are most 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.

### Operations

DOE works in partnership with state and local-level agencies to implement the Program. The Department awards formula grants to all 50 states, the District of Columbia, five U.S. territories and Native American tribes, which then usually contract with local agencies. Over **700 local organizations** deliver Weatherization services to eligible residents in every county in the nation<sup>3</sup>.

Since the inception of the Program in 1976, more than **7 million** households have received Weatherization services<sup>4</sup>.

- Weatherization returns **\$4.50** in energy and non-energy related benefits for every \$1.00 invested in the Program<sup>5</sup>.

**39.5 million**

households are eligible for Weatherization.

<sup>1</sup> ORNL/TM-2015/13, National Weatherization Assistance Program Impact Evaluation: Energy Impacts for Single Family Homes

<sup>2</sup> U.S. Department of Energy. This total includes both Recovery Act and formula grant units.

<sup>3</sup> Ibid.

<sup>4</sup> Ibid.

<sup>5</sup> Ibid.

- For every \$1 invested by DOE, the Program leverages **\$3.04** in other federal and non-federal resources<sup>6</sup>. Agencies use leveraged resources to weatherize more low-income homes and to deliver more services while in the home.

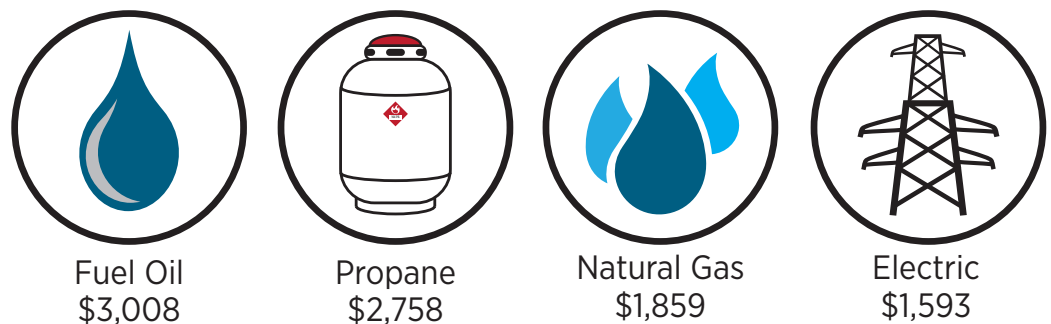
## Eligible Households

As of 2014, more than **39.5 million** households are eligible for Weatherization services, though not all of these homes are appropriate candidates for weatherization<sup>7</sup>. Some income eligible clients may live in dwellings that require repairs, rehabilitation, or services that are beyond the scope of the Weatherization Assistance Program.

Any household at or below 200% of the [poverty guidelines](#) is considered eligible. A Weatherization Grantee may elect to 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. A technical [memorandum](#) published by Oak Ridge National Laboratory found eligible U.S. households spent **\$72.3 billion** on energy costs in 2014<sup>8</sup>.

- Low-income households typically spend **16.3%** of their total annual income on energy, compared to **3.5%** for other households<sup>9</sup>.
- Low-income families must often cut back on other necessities, such as groceries or medicine, to pay their energy bills. Figure 1 specifies the average expenditures by fuel type in 2014.

Figure 1: Average Annual Energy Costs by Fuel Type | 2014



<sup>6</sup> NASCSP Funding Survey 2017.

<sup>7</sup> ORNL/TM-2014/133, Weatherization Assistance Program Technical Memorandum Background Data and Statistics on Low-Income Energy Use and Burdens, March 2014.

<sup>8</sup> Ibid.

<sup>9</sup> Ibid.

## Weatherization in Action

The national Weatherization network offers a streamlined delivery system to provide high quality, energy efficiency services and improvements in single family homes, manufactured or mobile homes, and multifamily buildings.

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 2 illustrates the most typical weatherization 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 2: Typical Weatherization Measures Installed



### MECHANICAL MEASURES

- Clean, tune, repair, or replace heating and/or cooling systems.
- Install duct and heating pipe insulation.
- Install programmable thermostats and other HVAC controls.
- Repair/replace water heaters.
- Install water heater tank insulation.
- Insulate water heating pipes.
- Install solar water heating systems.
- Install waste heat recovery devices.



### HEALTH & SAFETY MEASURES

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



### BUILDING SHELL MEASURES

- Install wall, floor, ceiling, attic, and/or foundation insulation.
- Complete Blower Door Testing.
- Perform air sealing.
- Repair/replace primary windows/doors.
- Install storm windows/doors.
- Install window film/solar screens/window louvers and awnings.
- Repair minor roof and wall leaks prior to attic or wall insulation.



### ELECTRIC BASELOAD MEASURES

- Install motor controls.
- Install efficient light sources.
- Replace refrigerators and freezers with energy efficient models.

## Household and Community Impacts

Weatherization helps to alleviate the heavy energy burden on low-income households and helps them become self-sufficient. Weatherization measures:

- Result in an average energy savings of **\$283 per year**<sup>10</sup> 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.

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

**Weatherization returns \$2.78 in non-energy benefits for every \$1.00 invested in the Program**<sup>11</sup>. After weatherization, 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 3). **The total health and household-related benefits for each unit is \$14,148**<sup>12</sup>.

Figure 3: Weatherization Non-Energy Benefits



HOMES ARE MORE LIVABLE



SAVES AN AVERAGE OF  
**\$514** IN OUT-OF-POCKET  
MEDICAL EXPENSES



SAVES **\$583** IN PAY PER  
YEAR DUE TO FEWER  
MISSED DAYS OF WORK

<sup>10</sup> U.S. Department of Energy, *National Evaluations: Summary of Results Fact Sheet*, August 2015.

<sup>11</sup> Ibid.

<sup>12</sup> Ibid.



## Program History

The Weatherization Assistance Program 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 the Weatherization Assistance Program.

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 in 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 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.

*Today's home performance industry, made up of for profit companies, is based on the techniques and technologies developed by the Weatherization Assistance Program.*



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.

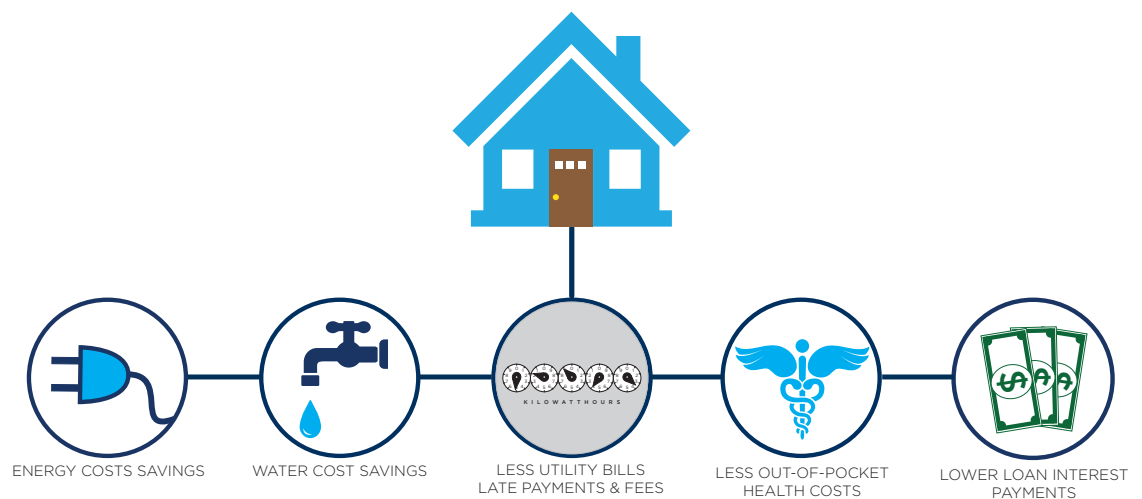
In a 2006 rulemaking, DOE allowed the eligibility of certain renewable energy systems for funding and installation under the [Energy Policy Act of 2005](#) and established criteria for their performance and quality standards.

The [Energy Independence and Security Act of 2007](#), 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.

As part of the Recovery Act that was signed into law on February 17, 2009, the Program was provided \$5 billion in additional funding to support jobs, spur economic growth, and expedite the weatherization of more low-income homes.

Today, DOE's Weatherization Assistance Program has evolved into a sophisticated residential program that addresses whole-house energy efficiency and promotes a whole-community approach.

**Figure 4: Weatherization Benefits**



## Funding and Production History

Many WAP Grantees use the DOE Weatherization funding as the foundation to attract other funding sources. The core funding received from DOE often provides 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.

The following chart reflects historic DOE appropriations and units weatherized since the Program's inception. Leveraged funds can be credited with increasing the total number of families served through Weatherization to over **7 million**.

Overview of the Weatherization Assistance Program DOE Funding and Production (1977 - 2018)								
Year	DOE Appropriation (in Millions)	Units Weatherized w/ DOE \$	Cumulative DOE Units	Year	DOE Appropriation (in Millions)	Units Weatherized w/ DOE \$	Units Weatherized w/ARRA \$	Cumulative DOE Units
1977	\$27.5	1,622	1,622	1998	\$124.8	68,470		2,534,753
1978	\$65.0	6,742	8,364	1999	\$133.0	71,984		2,606,737
1979	\$199.0	15,387	23,751	2000	\$135.0	74,316		2,684,446
1980	\$199.0	232,751	256,502	2001	\$153.0	77,709		2,762,155
1981	\$175.0	352,906	609,408	2002	\$230.0	104,860		2,867,015
1982	\$144.0	122,992	732,400	2003	\$223.5	105,953		2,972,968
1983	\$245.0	156,629	889,029	2004	\$227.2	106,099		3,079,067
1984	\$190.0	209,261	1,098,290	2005	\$228.2	100,532		3,179,599
1985	\$191.0	163,860	1,262,150	2006	\$242.6	98,626		3,278,225
1986	\$182.1	149,047	1,411,197	2007	\$204.6	104,532		3,382,757
1987	\$161.3	105,440	1,516,637	2008	\$227.2	95,460		3,478,217
1988	\$161.3	105,465	1,622,102	2009	\$450.0	101,153	7,343	3,586,713
1989	\$161.3	85,115	1,707,217	2010	\$210.0	49,982	238,317	3,933,170
1990	\$162.0	84,441	1,791,658	2011	\$174.3	36,878	309,579	4,279,627
1991	\$198.9	105,769	1,897,427	2012	\$68.0	50,419	226,121	4,556,167
1992	\$194.0	99,587	1,997,014	2013	\$137.9	49,834	23,103	4,629,104
1993	\$185.4	103,394	2,100,408	2014	\$179.2	38,099	1,699	4,668,902
1994	\$206.8	114,904	2,215,312	2015	\$191.8	34,389	527	4,703,818
1995	\$214.8	102,981	2,318,293	2016	\$213.8	31,633		4,735,451
1996	\$111.7	76,393	2,394,686	2017	\$226.2	38,626		4,774,077
1997	\$120.8	71,597	2,466,283	2018	\$250.4	33,823		4,807,900

## Organizational Chart

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

FEDERAL



### U.S. Department of Energy

Office of Energy Efficiency & Renewable Energy

Office of Weatherization & Intergovernmental Programs

Weatherization Assistance Program

STATE



### WAP Grantees

50 States

District of Columbia

5 U.S. Territories

Native American Tribal Organizations

LOCAL



### WAP Subgrantees

~ 700 Local Agencies

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 Energy Efficiency and Renewable Energy  
Office of Weatherization and Intergovernmental Program  
Weatherization Assistance Program  
1000 Independence Avenue, SW, Mail Stop EE-5W  
Washington, DC 20585-0121  
(202) 586-1510

### U.S. Department of Energy - Golden Field Office

U.S. Department of Energy  
15013 Denver West Parkway  
Golden, Colorado 80401  
(720) 356-1800

## Program Support

### Community Action Partnership (CAP)

1020 19th Street NW, Suite 700 Washington, DC 20036 | (202) 265-7546

### Economic Opportunity Studies (EOS)

400 North Capitol Street, Suite G-80, Washington, DC 20001 | (202) 628-4900

### Lawrence Berkeley National Laboratory (LBNL)

1 Cyclotron Road, Berkeley, CA 94720 | (510) 486-4000

### National Association of State Community Services Programs (NASCSPP)

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

## LEGISLATIVE & REGULATORY TIMELINE

### 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.

### Regulations

1. 10 CFR Part 440, Establishment of Regulations, Final Rule, published June 1, 1977, effective May 25, 1977.
2. 10 CFR Part 440, Final Rule, published and effective January 2, 1979, amended regulations based on the experience gained during the first year of the WAP.
3. 10 CFR Part 440, Final Rule, published May 31, 1979, effective July 2, 1979, amended the regulations as mandated by NECPA.
4. 10 CFR Part 440, Final Rule, published August 29, 1979, effective November 27, 1979, amended regulations as mandated by section 231(b)(1) of NECPA.
5. 10 CFR Part 440, Interim Rule, published and effective February 27, 1980.
6. 10 CFR, Amendment to Interim Rule, published June 1, 1981, effective July 1, 1981, made changes to the Interim Rule mandated by ESA.
7. 10 CFR Part 440, Amendment to Interim Rule, published and effective March 3, 1982, made changes mandated by section 573 of ESA.
8. 10 CFR Part 440, Final Rule, published January 27, 1984, effective February 27, 1984.
9. 10 CFR Part 440, Interim Final Rule, published January 4, 1985, effective February 4, 1985.

## Regulations, continued

10. 10 CFR Part 440, Interim Final Rule, published December 5, 1985, effective January 6, 1986, implemented changes mandated by the Human Services Reauthorization Act of 1984

11. 10 CFR Part 440, Final Rule, published March 4, 1993, effective April 4, 1993, implemented changes mandated by SEEPIA.

12. 10 CFR Part 440, Interim Final Rule, published June 5, 1995, effective July 5, 1995, implemented changes to the allocation formula.

13. 10 CFR Part 440, Interim Final Rule, published December 8, 2000, effective January 8, 2001, implemented changes to improve operation of the program that evolved since the last rulemaking in 1995.

14. 10 CFR Part 440, Direct Final Rule, published June 22, 2006, effective August 21, 2006, implemented changes mandated by the Energy Policy Act of 2005.

15. 40 CFR Part 745, Final Rule, published April 22, 2008, effective June 23, 2008, EPA Lead; Renovation, Repair, and Painting Program.

16. 10 CFR Part 440, Final Rule, published and effective on March 25, 2009, amended program to include the US Territories and Puerto Rico.

17. 10 CFR Part 400, Final Rule, published January 25, 2010, effective February 24, 2010, amended the eligibility provisions applicable to multi-unit buildings.

18. 10 CFR Part 440, Interim Final Rule published March 11, 2010, Final Rule published June 7, 2010, effective on July 7, 2010, Weatherization Assistance for Low-Income Persons: Maintaining the Privacy of Applicants for and Recipients of Services.

19. 10 CFR Part 200 and Part 910, Final Rule published September 24, 2015, effective on October 26, 2015, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards.

## Timeline

	LEGISLATION	REGULATIONS
1974	Pilot	Pilot
1976	1	
1977		1
1978	2	
1979		2,3,4
1980	3	5
1981		6
1982	4	7
1984	5	8
1985		9
1986		10
1990	6	
1993		11
1995		12
2000	7	
2001		13
2005	8	
2006		14
2007	9	
2008		15
2009	10	16
2010		17, 18
2015		19



## 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 handicapped 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.
  - 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	1980
<p data-bbox="131 317 760 432"><b>National Energy Conservation Policy Act (NECPA), Title II, Part 2, Public Law 95-619, November 9, 1978</b></p> <ul data-bbox="118 468 773 1514" style="list-style-type: none"> <li>◆ Increased eligibility level from the poverty level to 125% of poverty.</li> <li>◆ Allowed a higher eligibility level if determined necessary by the Administrator, Secretary of Agriculture, and the Director of the Community Services Administration.</li> <li>◆ Relaxed eligibility requirement from “in which the head of the household is a low-income person” to “occupied by low-income families.”</li> <li>◆ Added the requirement to establish program regulations within 60 days of law enactment.</li> <li>◆ 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.</li> <li>◆ Defined and listed specific Weatherization materials.</li> <li>◆ Limited administrative expenditures to 5% for states.</li> <li>◆ 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.</li> <li>◆ Funding section revised to specify authorization of appropriations for 1979-1981, and required these funds to remain available until expended.</li> </ul>	<p data-bbox="894 317 1425 432"><b>Energy Security Act (ESA), Title V, Subtitle E, Public Law 96-294, June 30, 1980</b></p> <ul data-bbox="816 468 1500 1388" style="list-style-type: none"> <li>◆ Increased limit on administrative expenditures to 10%, except that not more than half may be used by the state.</li> <li>◆ Increased \$800 limit for Weatherization materials to up to \$1,600 if CETA labor was unavailable.</li> <li>◆ Required the applicant to select subgrantees on the basis of public comment received during a public hearing.</li> </ul> <p data-bbox="854 751 1500 1129">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 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.</p> <ul data-bbox="816 1167 1479 1388" style="list-style-type: none"> <li>◆ Required that the efforts of the DOE Weatherization 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.</li> <li>◆ Increased the \$100 limit for incidental repairs to \$150.</li> </ul>

## HISTORY OF PROGRAM LEGISLATION

1982	1984
<p data-bbox="164 310 725 380"><b>Job Training Partnership Act, Public Law 97-300, October 13, 1982</b></p> <ul data-bbox="118 432 725 840" style="list-style-type: none"> <li>◆ 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.</li> <li>◆ 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.</li> </ul>	<p data-bbox="829 310 1489 380"><b>Human Services Reauthorization Act of 1984, Public Law 98-558, October 30, 1984</b></p> <ul data-bbox="816 432 1489 1350" style="list-style-type: none"> <li>◆ Eligibility criteria added: <ul data-bbox="857 495 1489 617" style="list-style-type: none"> <li>• 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 OMB.</li> </ul> </li> <li>◆ Weatherization materials added: <ul data-bbox="857 716 1489 1031" style="list-style-type: none"> <li>• Furnace efficiency modifications including: <ul data-bbox="889 779 1489 936" style="list-style-type: none"> <li>» Replacement burners, furnaces, or boilers.</li> <li>» Devices for minimizing energy loss through heating system, chimney, or venting devices.</li> <li>» Electrical or mechanical furnace ignition systems that replace standing gas pilot lights.</li> </ul> </li> <li>• Removed requirement that adding allowable weatherization materials required a rulemaking.</li> </ul> </li> <li>◆ Required that at least 40% of the funds provided for materials, labor, and related matter must be spent for materials.</li> <li>◆ Expenditure limit increased to <i>an average of</i> \$1,600.</li> <li>◆ Added reweatherization restrictions.</li> <li>◆ Established a performance fund.</li> </ul>

## 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 (SEAB);
  - 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 (JTPA) 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	2005
<p><b>Energy Policy Act of 2000, Public Law 106-469, October 19, 2000</b></p> <ul style="list-style-type: none"> <li>◆ Increased statewide average expenditure limit per dwelling to \$2,500 to be adjusted annually.</li> <li>◆ Included capital-intensive heating and cooling measures in the increased expenditure limit, thereby eliminating the separate capital-intensive expenditure limit.</li> <li>◆ Deleted waiver of 40% material cost requirement because all States had adopted advanced energy audits.</li> </ul>	<p><b>Energy Policy Act of 2005, Public Law 109-58, August 8, 2005</b></p> <ul style="list-style-type: none"> <li>◆ Explicitly allowed renewable energy systems to be funded under the Program.</li> <li>◆ Established criteria and a procedure for evaluating renewable energy systems.</li> <li>◆ Increased the permissible funding level to \$3,000 for such systems, indexed to the lesser of the Consumer Price Index (CPI) or 3%.</li> </ul>
2007	2009
<p><b>Energy Independence and Security Act of 2007, Public Law 110-140, December 19, 2007</b></p> <ul style="list-style-type: none"> <li>◆ Reauthorized the Weatherization Program.</li> <li>◆ Increased authorized appropriations for FY 2008-2012. The following amounts were appropriated—             <ul style="list-style-type: none"> <li>“(1) \$750,000,000 for fiscal year 2008;</li> <li>“(2) \$900,000,000 for fiscal year 2009;</li> <li>“(3) \$1,050,000,000 for fiscal year 2010;</li> <li>“(4) \$1,200,000,000 for fiscal year 2011; and</li> <li>“(5) \$1,400,000,000 for fiscal year 2012.”.</li> </ul> </li> <li>◆ Established Sustainable Energy Resources for Consumers (SERC) Grants:             <ul style="list-style-type: none"> <li>• Made funds available to local Weatherization agencies to expand Program for residential buildings not currently eligible.</li> <li>• No funds may be used for these grants if the appropriations for Weatherization Program is less than \$275,000,000.</li> </ul> </li> <li>◆ Definition of ‘state’ expanded to include ‘any other territory or possession of the United States.’</li> </ul>	<p><b>American Recovery and Reinvestment Act of 2009, Public Law 111-5, February 17, 2009</b></p> <ul style="list-style-type: none"> <li>◆ The main purpose of this Act was to stimulate the economy and create and retain jobs.</li> <li>◆ The Act gave preference to activities that started and were completed expeditiously, including a goal of using at least 50 percent of the funds made available by it for activities that were initiated no later than June 17, 2009.</li> <li>◆ The Act provided the Weatherization Assistance Program \$5 billion in funding for use between April 2009 through March 2012.</li> <li>◆ In addition to the increase in funding, the Act:             <ul style="list-style-type: none"> <li>• Increased the referenced percentage of the poverty level in the definition of “low-income” from 150 percent to 200 percent.</li> <li>• Increased the limit on the minimum average expenditure per dwelling from \$2,500 to \$6,500.</li> <li>• Increased the amount of appropriated funds the Department of Energy could apply towards Training and Technical Assistance (T&amp;TA) from 10 percent of the appropriated sums up to 20 percent.</li> <li>• Assistance for Previously Weatherized Units: Amended from September 30, 1993, to September 30, 1994.</li> </ul> </li> </ul>

## LEGISLATIVE &amp; REGULATORY REFERENCES

NOTICE	PURPOSE	REGULATORY AUTHORITY	STATUTORY AUTHORITY
WPN 8/4/88	Added Wood Stoves as an approved weatherization material outside Appendix A. Was subsequently added to Appendix A in 3/4/1993 rule change.	Same as for WPN 94-5.	Same as for WPN 94-5.
WPN 94-5	Adds Florescent Lighting to Approved Materials List outside Appendix A	Added in 1/4/85 Rule change (currently 10 CFR 440.21(b) with details in preamble: approval without rulemaking process of materials/ technologies not listed in Appendix A.	The Human Services Reauthorization Act of 1984, PL 98-558, October 30, 1984, deleted “by rule” as a requirement for DOE to approve weatherization materials or technologies.
WPN 00-5	Adds Replacement Refrigerators and Electric Water Heaters to Approved Materials List outside Appendix A	Same as for WPN 94-5.	Same as for WPN 94-5.
WPN 01-11	Adds several more items to the Approved Materials List outside Appendix A	Same as for WPN 94-5.	Same as for WPN 94-5.
WPN 10-8	Program Notice on maintaining the privacy of recipient services	<a href="#">10 CFR 600.153(f)</a> , <a href="#">Retention and access requirements for records</a> , states DOE only restricts public access to records if such records would have been exempted from disclosure pursuant to the <a href="#">Freedom of Information Act</a> if the records belonged to DOE. WPN issued as part of continual TA by DOE.	<a href="#">Title IV, the Energy Conservation and Production Act of 1976, PL 94-385</a> , authorized Federal Energy Administration (FEA) to propagate regulations for WAP. <a href="#">The DOE Organization Act, PL 95-91</a> , gave responsibility of FEA for the WAP to DOE.
WPN 10-10	Reprogramming Training & Technical Assistance (T&TA) Funds to Program Operations	<a href="#">10 CFR 440.23(e)</a> sets 20% limit on T&TA. <a href="#">10 CFR 440.23(a)</a> requires DOE to ensure the effectiveness of WAP. <a href="#">10 CFR 440.12(b)(7)</a> requires Grantees to submit a T&TA plan to indicate how funds will be used.	<a href="#">Title IV, the Energy Conservation and Production Act of 1976, PL 94-385</a> , authorized up to 10% of annual WAP appropriation for T&TA, at the discretion of DOE. <a href="#">The Recovery Act</a> increased this to up to 20%.
WPN 10-12	Historic Preservation Implementation	<a href="#">10 CFR 440.2</a> , Administration of Grants	<a href="#">Title IV, the Energy Conservation and Production Act of 1976</a> , as amended, gave responsibility to DOE to administer WAP. <a href="#">Section 106 of the National Historic Preservation Act of 1966</a> , as revised. Implemented by 8/5/2004 change to 36 CFR 800. DOE is required to take into account the effect of weatherization on historic properties.
WPN 10-16	Clarification on Selection of Types of Insulation Materials Allowable for Use in the Weatherization Assistance Program	Same as for WPN 02-6.	Same as for WPN 02-6.
WPN 11-3	Use of WAP Funds for Add-On/Call-Back Work	The 1/27/1984 rule change added a provision, <a href="#">10 CFR 440.16(g)</a> , that a unit can be considered complete and reported to DOE after a final inspection. <a href="#">10 CFR 440.18(f)(2)</a> prohibits providing weatherization for units that have previously received WAP funds, with specific stated exceptions.	<a href="#">The Human Services Reauthorization Act of 1984, PL 98-558, Title 42 §6865(c)(2)</a> , began allowing further WAP assistance only for partially weatherized units bounded by Statute specified dates (currently 9-30-1994 or before).

## LEGISLATIVE &amp; REGULATORY REFERENCES

NOTICE	PURPOSE	REGULATORY AUTHORITY	STATUTORY AUTHORITY
WPN 11-14	Updated Subgrantee Selection Program Notice	Direction for implementing <a href="#">10 CFR 440.14</a> & <a href="#">10 CFR 440.15</a> . Supersedes WPN 96-4. Issued in anticipation of Subgrantee changes due to end of ARRA funding.	Title IV, the Energy Conservation and Production Act of 1976, as amended, requirements in §6861(a)(4) and §6864(b)(4).
WPN 12-7	Disaster Planning and Relief	Outlines requirements in 10 CFR 440.16 and 440.18. Suggests how such requirements may be interpreted to provide for limited WAP participation during disaster relief.	<a href="#">Title IV, the Energy Conservation and Production Act of 1976</a> , as amended, authorizes DOE to administer the WAP ( <a href="#">42 U.S.C. 6861-6873</a> ).
WPN 15-4	Quality Work Plan Requirement	Details for program oversight required by <a href="#">10 CFR 440.23</a> . Specifically provides minimum expectations for standards and quality of material installation and quality control.	<a href="#">Title IV, the Energy Conservation and Production Act of 1976</a> , as amended, authorizes DOE to administer the WAP ( <a href="#">42 U.S.C. 6861-6873</a> ), specifically <a href="#">§6851(a)(4)</a> and <a href="#">§6866</a> .
WPN 16-4	Weatherization Assistance Program Monitoring Procedures	Provides details for program oversight required by <a href="#">10 CFR 440.23</a> .	<a href="#">Title IV, the Energy Conservation and Production Act of 1976</a> , as amended, authorizes DOE to administer Weatherization ( <a href="#">42 U.S.C. 6861-6873</a> , <a href="#">§6851(a)(4)</a> and <a href="#">§6866</a> ).
WPN 16-5	Multifamily Weatherization	Gives detailed information for conformance with requirements in <a href="#">10 CFR 440</a> , including but not limited to, <a href="#">10 CFR 440.16(i)</a> ; <a href="#">440.22</a> . Significant discussion of requirements can be found in the preambles to the following rule changes: 6/1/1977; 2/27/1980; 1/27/1984; 3/4/1993; 12/8/2000; 1/25/2010.	<a href="#">Title IV, the Energy Conservation and Production Act of 1976</a> , as amended, authorizes DOE to administer the WAP ( <a href="#">42 U.S.C. 6861-6873</a> ). Specifically, <a href="#">§6863(b)(2)</a> and <a href="#">(b)(5)</a> . Includes subsequent revisions by <a href="#">SEEPA in 1990</a> .
WPN 16-6	Weatherization of Rental Units	Gives detailed information for conformance with requirements in <a href="#">10 CFR 440</a> , including but not limited to, <a href="#">10 CFR 440.16(i)</a> ; <a href="#">440.22</a> . Significant discussion of requirements can be found in the preambles to the following rule changes: 6/1/1977; 2/27/1980; 1/27/1984; 3/4/1993; 12/8/2000; 1/25/2010.	<a href="#">Title IV, the Energy Conservation and Production Act of 1976</a> , as amended, authorizes DOE to administer the WAP ( <a href="#">42 U.S.C. 6861-6873</a> ). Specifically, <a href="#">§6863(b)(2)</a> and <a href="#">(b)(5)</a> . Includes subsequent revisions by <a href="#">SEEPA in 1990</a> .
WPN 16-7	Approved Weatherization Materials with Specifications	Provides details with reference to <a href="#">10 CFR 440.21(b)</a> , which allows use of a weatherization material not listed in Appendix A as approved by DOE upon application from any state. Discussion of this provision is published in the preamble of the <a href="#">10 CFR 440 Interim Final Rule of 1/4/1985</a> .	<a href="#">Title IV, the Energy Conservation and Production Act of 1976</a> , as amended, authorizes DOE to administer WAP ( <a href="#">42 U.S.C. 6861-6873</a> ). Specifically, <a href="#">§6862(9)(J)</a> , with subsequent revision by HSRA in 1984, which struck out the requirement “by rule” for approving additional weatherization materials.
WPN 17-4	Multifamily Housing – Procedure for Certifying Income-Eligible HUD Assisted Buildings	Provides details with reference to <a href="#">10 CFR 440.22(b)</a> , which allows a subgrantee may weatherize a building containing rental dwelling units using financial assistance for dwelling units eligible for weatherization assistance.	<a href="#">Title IV, the Energy Conservation and Production Act of 1976</a> , as amended, authorizes DOE to administer WAP ( <a href="#">42 U.S.C. 6861-6873</a> ).
WPN 17-6	Property Acquired Under the Weatherization Assistance Program (WAP) Including Vehicle and Equipment Purchases	Guidance to outline detail and provide clarification for compliance with requirements in <a href="#">2 CFR 200.33</a> ; <a href="#">2 CFR 200.310-316</a> ; <a href="#">10 CFR 440.18</a> concerning procedures for property acquisitions.	<a href="#">Title IV, the Energy Conservation and Production Act of 1976</a> , as amended, authorizes DOE to administer the WAP ( <a href="#">42 U.S.C. 6861-6873</a> ).
WPN 17-7	Health & Safety Guidance	Rule change 3/4/93, including preamble discussion, added requirements for Health & Safety plans in what is currently <a href="#">440.16(h)</a> , <a href="#">440.18(c)(15)</a> , and <a href="#">440.21(e)(5)</a> .	<a href="#">The State Energy Efficiency Programs Improvement Act (SEEPIA), PL 101-440, 1990</a> , added improvement of Health & Safety of dwellings to the purpose of WAP.



## LEGISLATIVE &amp; REGULATORY REFERENCES

NOTICE	PURPOSE	REGULATORY AUTHORITY	STATUTORY AUTHORITY
WPN 19-1	WAP Grant Program Notice	Program Notice for annual Grantee application for funding, includes two attachments: 1) Administrative and Legal Requirements Document (ALRD) and 2) Application Instructions. These documents provide comprehensive information for conformance with DOE WAP grant regulations. Specific reference can be tied to <a href="#">10 CFR 440.12</a> and <a href="#">440.14</a> .	<a href="#">Title IV, the Energy Conservation and Production Act of 1976</a> , as amended, authorizes DOE to administer the WAP (42 U.S.C. 6861-6873).
WPN 19-2	Program Year 2019 Grantee Allocations	Explicitly lists funding allocation amounts available to each potential Grantee. Based on the latest revision of <a href="#">10 CFR 440.10</a> & <a href="#">440.11</a> .	<a href="#">Title IV, the Energy Conservation and Production Act of 1976</a> , as amended, authorizes DOE to administer the WAP (42 U.S.C. 6861-6873). Specifically, §6863(d) and §6864.
WPN 19-3	Poverty Income Guidelines and Definition of Income	Annual program notice includes details of income eligibility determination, including revised Poverty Income Guidelines in support of the latest revision of <a href="#">10 CFR 440.3</a> (definition of “low income”) and <a href="#">10 CFR 440.22</a> (eligible dwelling units).	<a href="#">Title IV, the Energy Conservation and Production Act of 1976</a> , as amended, authorizes DOE to administer the WAP (42 U.S.C. 6861-6873). Specifically, §6862(7), with subsequent revisions by NECPA in 1978; HSRA in 1984; Energy Act of 2005; ARRA of 2009.
WPN 19-4	Revised Energy Audit Approval Procedures and Other Related Audit Issues	Provides details with primary reference to <a href="#">10 CFR 440.21</a> . Preambles to following rule changes provide many details of intent: 3/4/1993; 12/8/2000; 11/21/2001.	<a href="#">Title IV, the Energy Conservation and Production Act of 1976</a> , as amended, authorizes DOE to administer the WAP (42 U.S.C. 6861-6873). Specifically §6863(b) & §6865. As amended: by <a href="#">SEEPIA in 1990</a> ; <a href="#">Energy Act of 2000</a> .
WPN 19-5	Weatherization Assistance Program Incidental Repair Measures Notice, including windows, doors and roofs	Provides on allowable incidental repair measures (IRM). IRM allowances evolved over time, with discussions (very useful for perspective) in preambles to rule changes: 1/2/1979; 5/31/1979; 2/27/1980; 6/1/1981; 1/27/1984; 1/4/1985; 3/4/1993. Current rules address IRM in <a href="#">10 CFR 440.3</a> & <a href="#">440.21(d)</a> .	<a href="#">Title IV, the Energy Conservation and Production Act of 1976</a> , as amended, authorizes DOE to administer the WAP ( <a href="#">42 U.S.C. 6861-6873</a> ). <a href="#">§6865(c)(1)(d)</a> was added by NECPA in 1978 to allow limited repairs, with subsequent revisions by <a href="#">ESA in 1980</a> ; <a href="#">HSRA in 1984</a> ; <a href="#">SEEPIA of 1990</a> .
WPN 19-6	DOE Program Notice for Completing Recipients' Annual Historic Preservation Report	<a href="#">10 CFR 440.2</a> , Administration of Grants	<a href="#">Title IV, the Energy Conservation and Production Act of 1976</a> , as amended, gave responsibility to DOE to administer WAP. <a href="#">Section 106 of the National Historic Preservation Act of 1966</a> , as revised. Implemented by 8/5/2004 change to 36 CFR 800. DOE is required to take into account the effect of weatherization on historic properties.

## WEATHERIZATION TIMELINE

1978



*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



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.

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.

1970s

1980s



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

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 Weatherization grants.

1979



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

**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 Weatherization**. Weatherization training providers ramp up to meet additional staffing requirements nationwide. Workforce standardization launches with the development of the 4 key weatherization/home performance Job Task Analyses & training center accreditation programs.

## 2009

## 1990s

## 2000s

## 1996

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

## 2006

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

## 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.

## 1999

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



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## PROGRAM FUNDING AND PRODUCTION

Each year Congress appropriates funding to implement the Weatherization Assistance 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 Weatherization 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 [American Recovery and Reinvestment Act of 2009 \(the Recovery Act\) \(Public Law 111-5\)](#), increased the T&TA percentage from 10% to 20%.

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 Weatherization 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.** The population factor is the share of the nation's low-income households in each Grantee expressed as a percentage of all U.S. low-income households.

**F2. Climate Factor.** The formula factor for climatic conditions is obtained from the heating and cooling degrees for each Grantee, treating the energy needed for heating and cooling proportionately.

**F3. Residential Energy Expenditures Factor.** The residential energy expenditure factor is an approximation of the financial burden that energy use places on low-income households. The approximation is necessary because of the lack of state-specific data on residential energy expenditures by low-income households.

## 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 Weatherization Assistance Program in Fiscal Year (FY) 1995. After reserving funds for the DOE Headquarters (DOE HQ), Grantee T&TA, and for cross-cutting Energy Efficiency and Renewable Energy (EERE) office 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 Grantees'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
<b>Total Program Allocation</b>	<b>\$175,312,500</b>
- Total Base Allocations	\$171,858,000
<b>Total Formula Allocations</b>	<b>\$3,454,500</b>

### 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 ( <i>\$50,000 plus a certain percentage** of the State Program Allocation</i> )	+ \$381,964
<b>Total State Allocation</b>	<b>\$2,236,124</b>

#### 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
<b>Total Program Allocation</b>	<b>\$219,037,500</b>
- Total Base Allocations	\$171,858,000
<b>Total Formula Allocations</b>	<b>\$47,179,500</b>

### 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
<b>Total State Allocation</b>	<b>\$2,849,629</b>

#### NOTES:

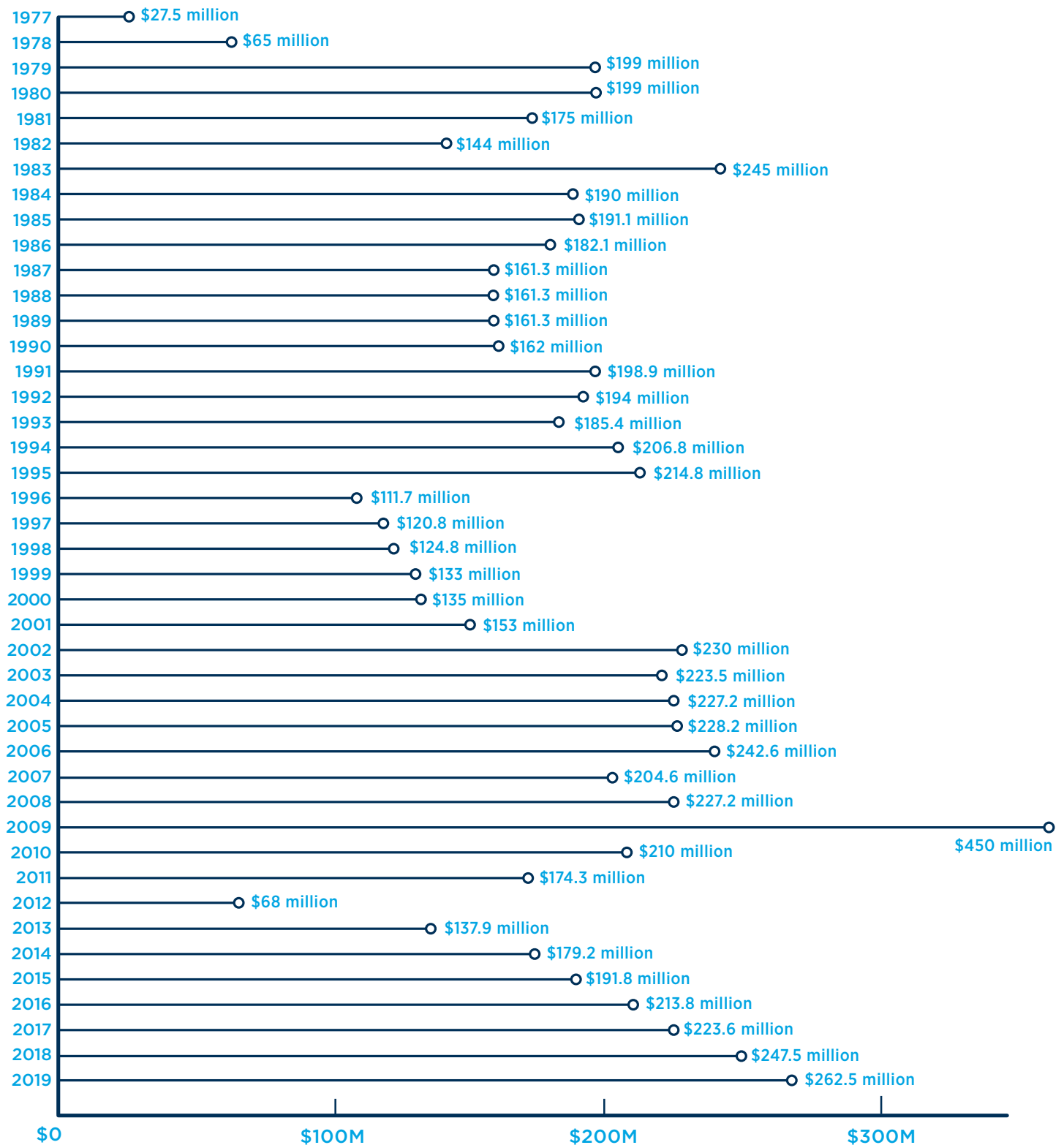
\* Example only, not all states would receive this amount.

\*\* 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.

## Weatherization Funding by Grantee | FY 2019

	FY 2019 Program Allocation	FY 2019 T&TA Allocation	FY 2019 Total Allocation		FY 2019 Program Allocation	FY 2019 T&TA Allocation	FY 2019 Total Allocation
Alabama	\$2,361,277	\$488,352	\$2,849,629	North Dakota	\$2,304,949	\$477,895	\$2,782,844
Alaska	\$1,690,026	\$363,739	\$2,053,765	Ohio	\$13,208,488	\$2,502,047	\$15,710,535
Arizona	\$1,502,668	\$328,958	\$1,831,626	Oklahoma	\$2,484,901	\$511,301	\$2,996,202
Arkansas	\$1,913,672	\$405,257	\$2,318,929	Oregon	\$2,762,654	\$562,864	\$3,325,518
California	\$6,317,389	\$1,222,771	\$7,540,160	Pennsylvania	\$14,203,078	\$2,686,684	\$16,889,762
Colorado	\$5,283,587	\$1,030,854	\$6,314,441	Rhode Island	\$1,098,806	\$253,984	\$1,352,790
Connecticut	\$2,587,105	\$530,275	\$3,117,380	South Carolina	\$1,786,760	\$381,697	\$2,168,457
Delaware	\$562,877	\$154,493	\$717,370	South Dakota	\$1,759,858	\$376,703	\$2,136,561
District of Columbia	\$560,231	\$154,002	\$714,233	Tennessee	\$4,213,581	\$832,216	\$5,045,797
Florida	\$2,239,636	\$465,770	\$2,705,406	Texas	\$5,703,031	\$1,108,721	\$6,811,752
Georgia	\$3,152,780	\$635,288	\$3,788,068	Utah	\$2,004,577	\$422,133	\$2,426,710
Hawaii	\$174,988	\$82,485	\$257,473	Vermont	\$1,228,313	\$278,026	\$1,506,339
Idaho	\$1,895,433	\$401,871	\$2,297,304	Virginia	\$3,958,318	\$784,829	\$4,743,147
Illinois	\$13,002,042	\$2,463,722	\$15,465,764	Washington	\$4,452,979	\$876,659	\$5,329,638
Indiana	\$6,499,095	\$1,256,503	\$7,755,598	West Virginia	\$2,983,301	\$603,825	\$3,587,126
Iowa	\$4,669,739	\$916,898	\$5,586,637	Wisconsin	\$8,439,643	\$1,616,750	\$10,056,393
Kansas	\$2,397,153	\$495,012	\$2,892,165	Wyoming	\$978,448	\$227,371	\$1,205,819
Kentucky	\$4,373,080	\$861,826	\$5,234,906				
Louisiana	\$1,388,079	\$307,685	\$1,695,764	American Samoa	\$130,026	\$74,140	\$204,166
Maine	\$2,942,543	\$596,259	\$3,538,802	Guam	\$137,675	\$75,558	\$213,233
Maryland	\$2,653,542	\$542,608	\$3,196,150	Puerto Rico	\$721,775	\$183,992	\$905,767
Massachusetts	\$6,289,681	\$1,217,627	\$7,507,308	Northern Mariana Islands	\$131,475	\$74,407	\$205,882
Michigan	\$15,029,332	\$2,840,071	\$17,869,403	Virgin Islands	\$143,340	\$76,610	\$219,950
Minnesota	\$9,396,069	\$1,794,302	\$11,190,371	Northern Arapaho Grant	\$91,374	\$21,233	\$112,607
Mississippi	\$1,520,059	\$332,186	\$1,852,245	<b>Total</b>	<b>\$219,037,500</b>	<b>\$43,462,500</b>	<b>\$262,500,000</b>
Missouri	\$5,757,541	\$1,118,840	\$6,876,381	Headquarters T&TA			\$3,000,000
Montana	\$2,366,059	\$489,239	\$2,855,298	Vermiculite Study			\$500,000
Nebraska	\$2,364,637	\$488,975	\$2,853,612	NOTE: The FY2019 appropriation is above the threshold that triggers changes to the allocation formula mandated by the interim final rule published on June 5, 1995 in the Federal Register, Volume 60, No. 107, Pages 29469-29481.			
Nevada	\$969,608	\$230,000	\$1,199,608				
New Hampshire	\$1,459,280	\$320,903	\$1,780,183				
New Jersey	\$5,092,716	\$995,421	\$6,088,137				
New Mexico	\$1,840,923	\$391,752	\$2,232,675				
New York	\$19,627,867	\$3,693,751	\$23,321,618				
North Carolina	\$4,229,436	\$835,160	\$5,064,596				

## DOE Appropriated Weatherization Funding by Year

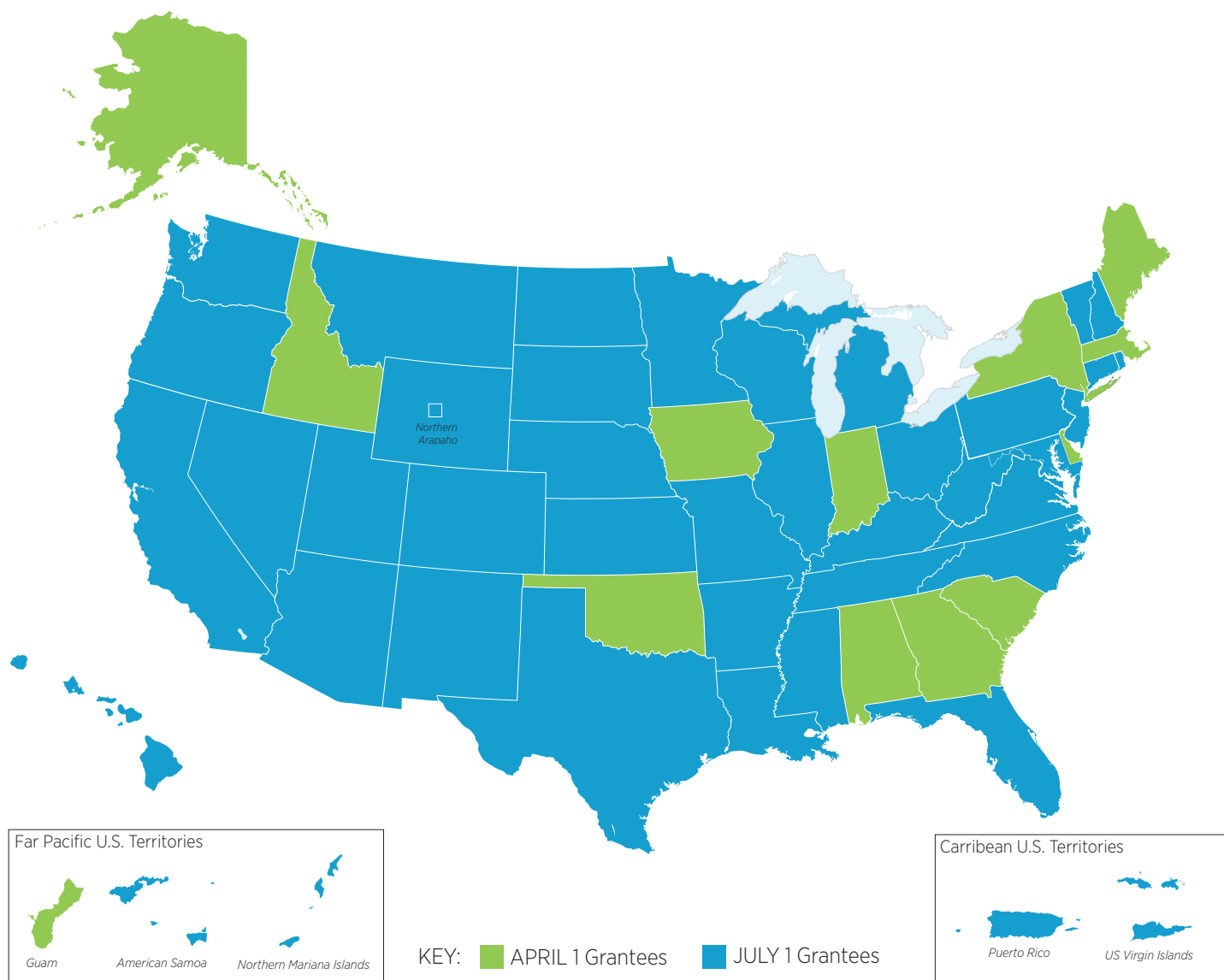




## Grant Start Dates

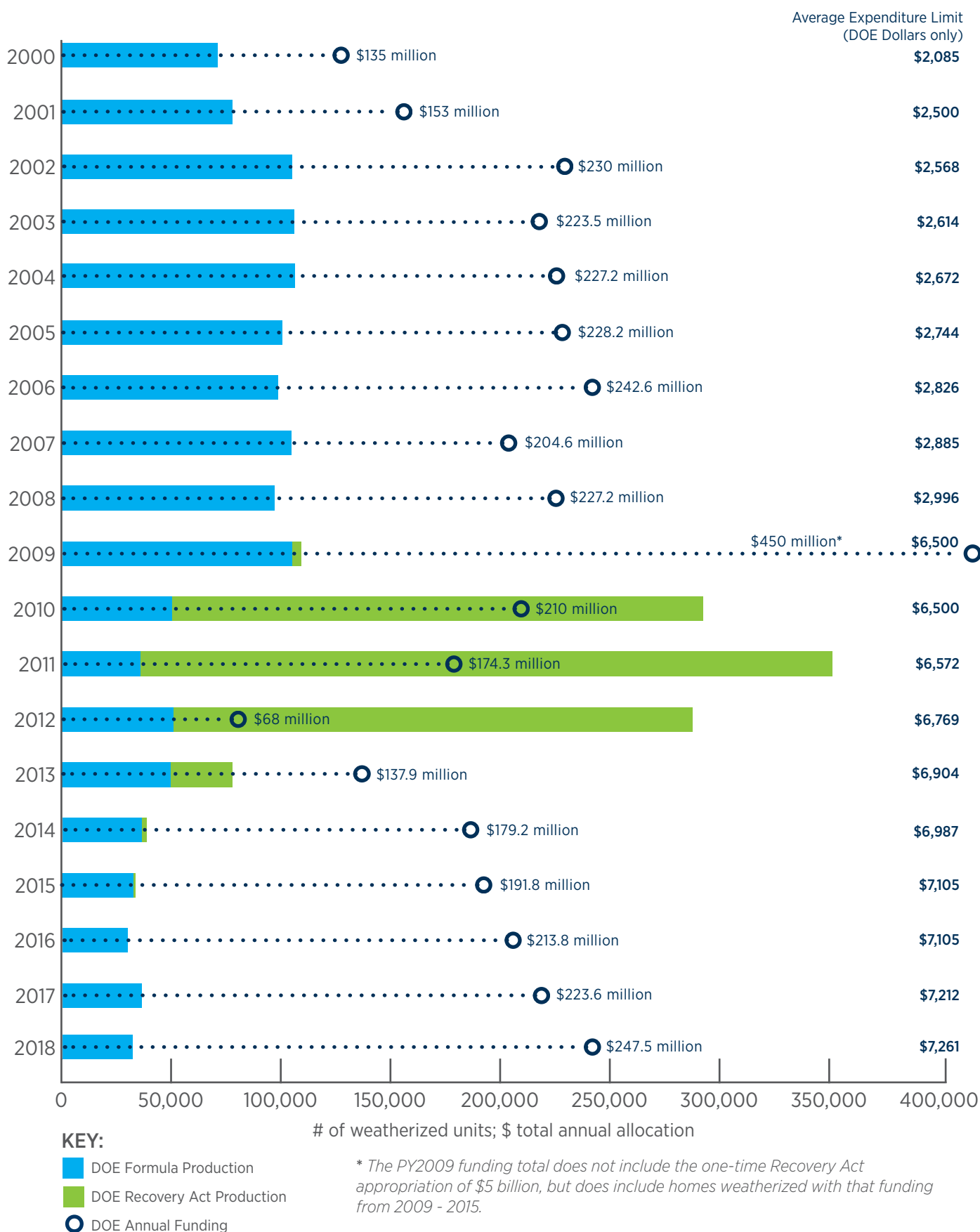
Weatherization provides flexibility to the Program's Grantees to start their state program when it is best for their internal structure, such as aligning with their state fiscal year. As shown in Figure 5, the majority of states and the U.S. territories follow a July 1 - June 30 fiscal year, while 13 Grantees start their programs on April 1.

Figure 5: Weatherization Grantees Start Dates (as of December 2019)

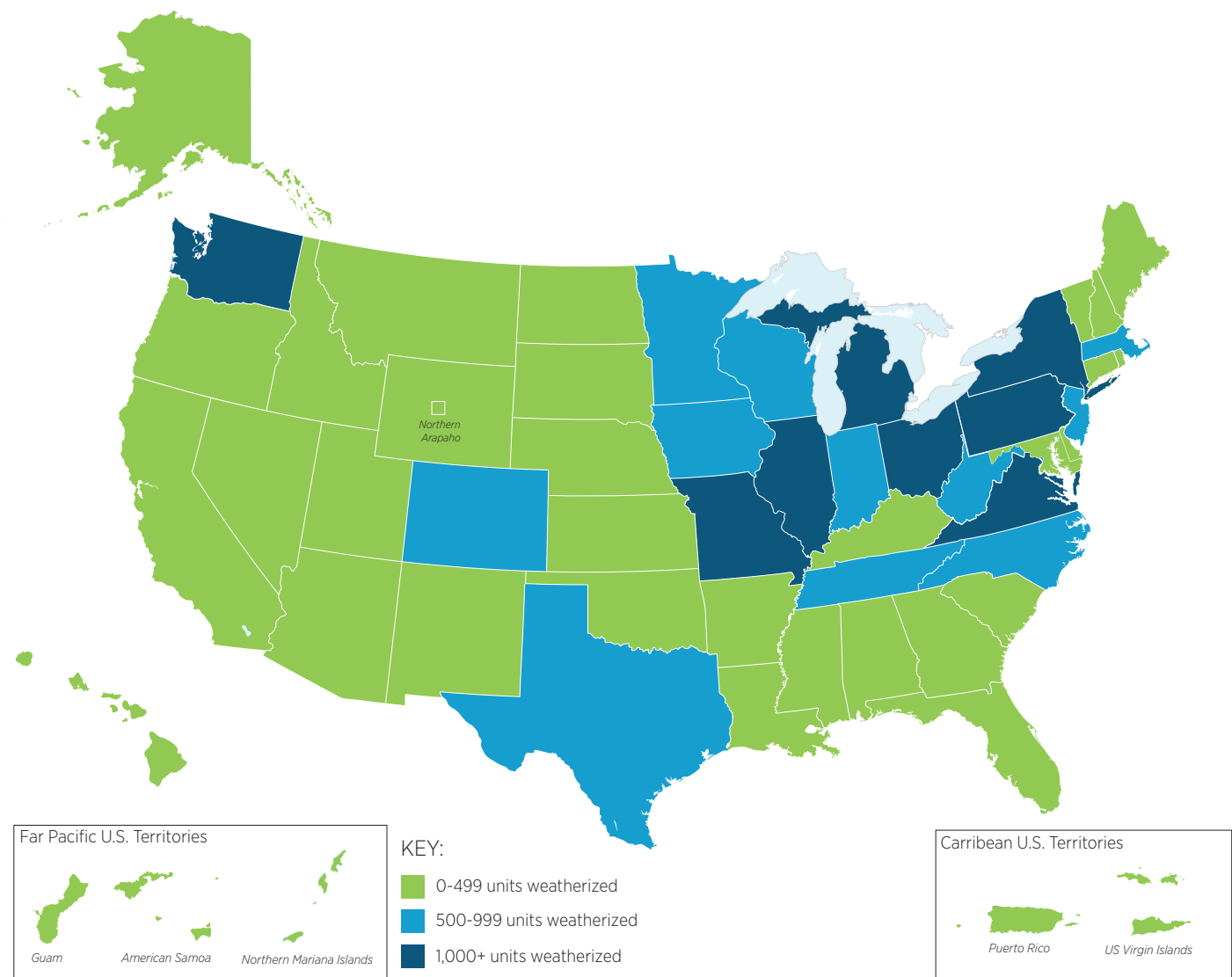




## Weatherization Production & Funding | 2000-2018



# FY2018 Weatherization Production by Grantee



## 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.

Each year, Congress provides the U.S Department of Energy (DOE) with appropriated funds for national Training and Technical Assistance (T&TA) activities that benefit all Grantees and Subgrantees.

Grantees are encouraged to provide training and technical assistance to staff and contractors at both the Grantee and Subgrantee level. DOE allows up to 20 percent of a Grantee's total funding to be reserved for these activities. Training and Technical Assistance funds support the program's operations by:

- Conducting trainings and developing training curricula.
- Conducting analyses.
- Measuring and documenting program performance.
- Investing in the development of tools and resources.
- Monitoring the state and local agency programs.
- Promoting the application of advanced techniques and collaborative strategies to further improve program effectiveness.

In addition to the 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.

### WEATHERIZATION BY THE NUMBERS

There are over

**1,500**

credentialed Quality  
Control Inspectors (QCI)  
in the WAP Network.

## Guidelines for Home Energy Professionals

The Guidelines for Home Energy Professionals 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. The Guidelines project includes:

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

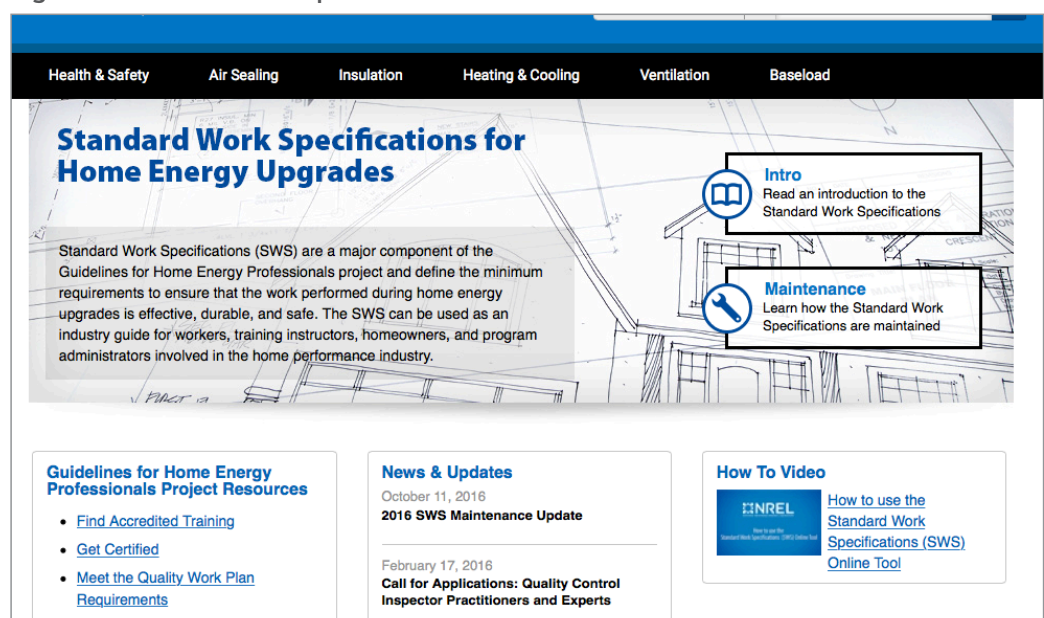
### Standard Work Specifications for Home Energy Upgrades

The [Standard Work Specifications \(SWS\)](#) for single-family, manufactured, and multifamily housing describe the minimum acceptable outcomes for weatherization or home performance upgrades — effective, durable, and safe energy-efficient improvements for the specific housing type.

The SWS provides [one universal resource](#) for all individuals working in the field including trainers and training coordinators, energy auditors, quality control inspectors, home inspectors, crew leaders, and energy efficiency program administrators (Figure 7).

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

Figure 7: Standard Work Specifications Website



## Accreditation of Energy Efficiency Training Programs

High-quality work requires well-trained workers. Accredited training programs ensure that individuals receive the proper training to become certified Home Energy Professionals and to do the quality work that is defined in the Standard Work Specifications. The difference between **certification** and **accreditation** is an individual gets certified and training providers get accredited.

DOE and the National Renewable Energy Laboratory (NREL) developed [Job Task Analyses \(JTAs\)](#) to set a foundation for then accredited training curricula development and execution. The JTAs catalogue the **Knowledge, Skills, and Abilities (KSAs)** that a practitioner needs in order to perform a given job effectively and safely. *The JTAs define what a home energy professional needs to know in order to do the job correctly.*

The JTAs 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 these JTAs ensures that consistent and high quality training programs are now available across the country (see Table 1).

## Home Energy Professional Certifications

The [Home Energy Professional \(HEP\) certifications](#) validate a worker's capacity to demonstrate concrete and consistent abilities to perform their specified position. These advanced certifications are job-oriented and require a fully trained and experienced professional to demonstrate the comprehensive knowledge, skills, and abilities to be successful in a specific role. Candidates must have upfront job experience as a prerequisite in addition to passing both a written and practical exam.

The Home Energy Professional certifications — funded by DOE, developed by NREL and administered by [International Standards Organization](#) (ISO) accredited certifying organizations — are intended to complement one another and provide a career lattice in the home energy upgrade industry.

Table 1: Current IREC Accredited Training Centers by HEP Designation

NAME	LOCATION	RETROFIT INSTALLER TECHNICIAN	ENERGY AUDITOR	CREW LEADER	QUALITY CONTROL INSPECTOR
Association for Energy Affordability, Inc. (AEA)	Bronx, NY	✓	✓	✓	✓
Building Performance Center	Bellingham, WA		✓		✓
CHP Energy Solutions, LLC	Christiansburg, VA	✓	✓	✓	✓
COAD Ohio Weatherization Training Center	Athens, OH	✓	✓	✓	✓
Contractors-Laborers Training Fund	Omaha, NE	✓		✓	
Energy Coordinating Agency of Philadelphia, Inc.	Philadelphia, PA	✓	✓		✓
Everblue	Huntersville, 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	✓	✓	✓	✓
National Sustainable Structures Center	Williamsport, PA	✓	✓	✓	✓
New York State Weatherization Directors Association (NYSWDA)	Guilderland, NY		✓	✓	✓
Oklahoma Weatherization Training Center	Edmond, OK	✓	✓	✓	✓
Oregon Training Institute	Salem, OR		✓		✓
Residential Energy Efficiency - Training Initiatives	Frankfort, KY	✓	✓	✓	✓
Santa Fe Community College	Sante Fe, NM	✓	✓	✓	✓
Southface Energy Institute	Atlanta, GA	✓	✓	✓	✓
SMOC/Green Jobs Academy	Framingham, MA	✓	✓	✓	✓
State of Utah	Clearfield, UT				✓
Wisconsin Energy Conservation Corporation	Madison, WI	✓	✓	✓	✓

## Standardized Training Curricula

In September 2009, DOE launched development of a standardized training curricula for the Weatherization Network to use and adapt to meet its specific regional or local training needs.

The Weatherization curriculum contains multiple modules covering many fundamental Weatherization topics. It is editable, flexible and offers an experienced instructor a baseline of core content upon which to build robust and compelling coursework. The Standardized Curriculum is aligned with the JTAs and provides a solid foundation for accreditation.

Each curricula module contains multiple chapters with PowerPoint presentations, speaker notes, prop schematics and hands-on props where applicable, lesson plans, quizzes, additional resources, a glossary of key terminology, and either a sample course schedule or a master bibliography and instructions.

## Quality Work Plan

The [Quality Work Plan \(QWP\)](#) defines what is required when federal dollars are used to purchase weatherization services and leverages the resources developed through the Guidelines for Home Energy Professionals project. The QWP was created to ensure the Weatherization Network has a common set of expectations for the quality of work and training across the program. Among the goals of the QWP are:

- Consistent expectations at all levels of monitoring.
- Highlight the value of experienced crews.
- Define and encourage high quality training.
- Create consistency in inspection methods.
- Set national standards for work quality.
- Encourage the use of portable and nationally recognized credentials for Weatherization workers.

This QWP not only defines how home energy upgrade work should be done, but it also provides a prescription for communication, training, and the inspection of work throughout the Weatherization Network.

## Effective Management | Quality Management Plan

DOE believes in effectively managing the administrative, programmatic, and technical aspects of Weatherization. As such, identifying the Knowledge, Skills, and Abilities (KSAs) necessary to carry out various tasks related to performing the role of a Grantee and Subgrantee are very important. One aspect of effective management is keeping consistent records. [10 CFR 440.24](#) requires, among other specific recordkeeping requirements, Grantees and Subgrantees administering Weatherization keep records for an effective audit and performance evaluation.

In recent years, state and federal monitoring and oversight led DOE to develop a framework to assist Grantees and Subgrantees in how to keep records consistently and how to provide 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 being followed (e.g., eligibility requirements are being followed).
- Appropriate cost effective measures are being installed (e.g., 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 guidance (e.g., Certified Renovator is assigned to lead-paint jobs).
- Inspections are occurring as required (e.g., 100% of the units are inspected and the post-inspection checklist includes the inspection of the audit assessment).

## Financial Management | Procurement Toolkit

In recent years, DOE increased the focus on financial management during onsite monitoring visits as a result of Investigator General (IG) reports that identified questionable costs charged to the DOE grants.

To assist Grantees to financial and administration compliance, DOE developed the [Weatherization Financial Toolkit](#). The Toolkit serves as a universal training curriculum to educate weatherization professionals on how to comply with financial regulations governing the Program. The Toolkit is comprised of two sections - Program Regulations and Procurement. Each section contains trainer and participant materials and resources to make it simple for Grantees to provide comprehensive training to their network.

The latest update to the Toolkit reflects the changes from December 26, 2014, wherein the DOE Financial Assistance regulations contained in 10 CFR 600 were superseded by the Financial Assistance regulations contained in [2 CFR 200](#) (with DOE regulations specific to for-profit organizations codified in [2 CFR 910](#)).



## Energy Audits Procedures

Regulations published on December 8, 2000, changed the energy audit requirements for Weatherization and established a single audit criterion (*what was formerly referred to as the waiver audit*) as the minimum for energy audits used. To ensure Grantees adopt advanced energy audit procedures of sufficient technical rigor, Grantees must submit their energy audit systems and procedures to DOE for approval **every five years**.

DOE follows an energy audit review process (see Figure 9) to review the energy calculations used by software, as well as the auditing, testing, and installation standards used in the field as well as health and safety protocols.

DOE also sponsored the development of the [National Energy Audit Tool \(NEAT\)](#) so that all Grantees would have access to a computerized tool to help select cost-effective measures for single-family houses. However, Grantees are permitted to develop their own software or purchase commercially available software provided that DOE has reviewed and approved the software complies with program

Figure 8: Weatherization Assistance Program - Approved Energy Audit Tools (November 2019)

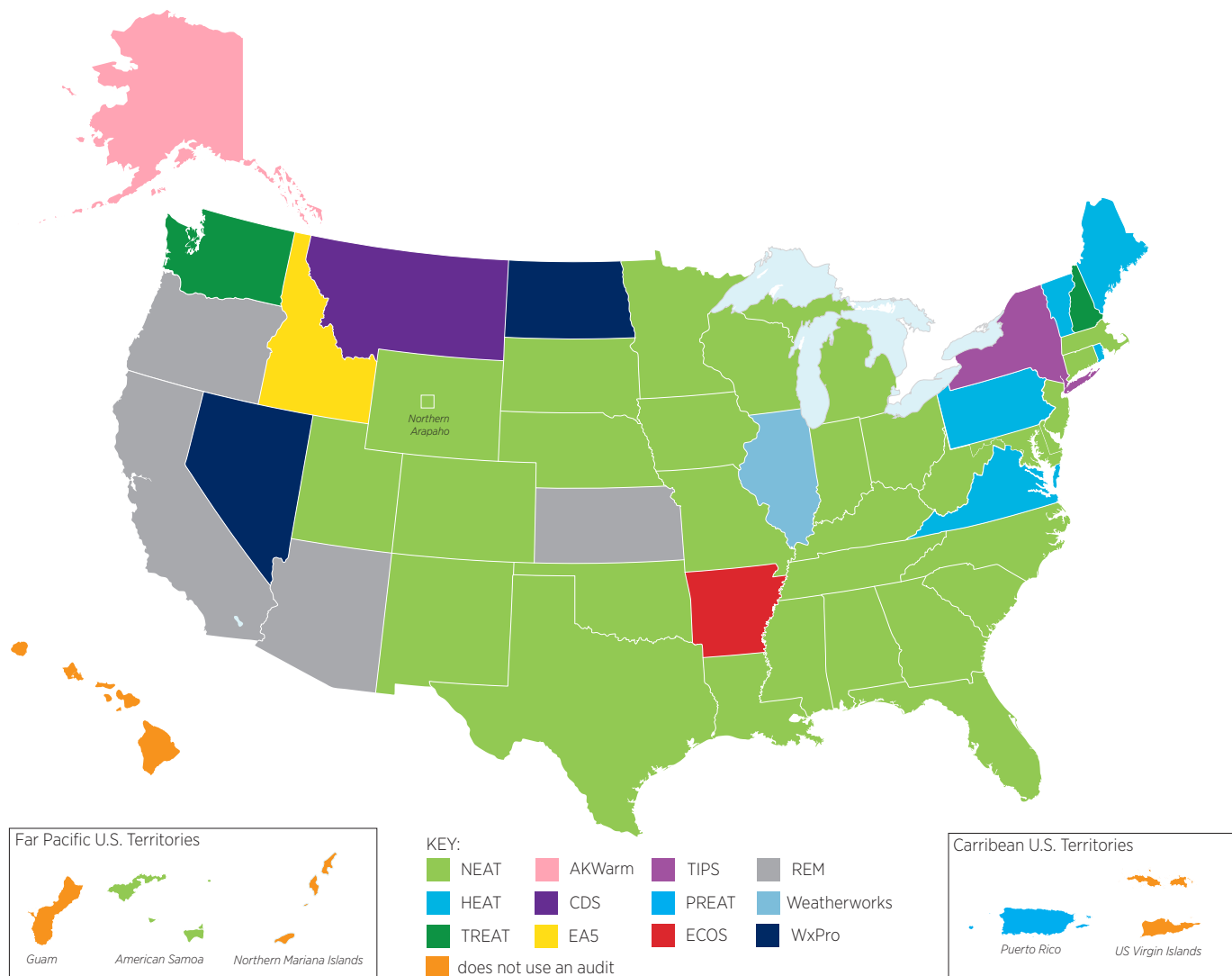


Figure 8: Weatherization's Energy Audit Review Process

# 1 PREPARATION

Grantee reviews WPN 16-8 six to twelve months prior to expiration and advises the DOE Project Officer (PO) of its intended reapproval plan (e.g. same audit tool, different tool).



# 2 CONSULTATION

Grantee and DOE (PO and contractors when needed) hold a conference call to discuss the audit submittal.  
Establish tentative timeline • Discuss nuances & changes since last submission • Identify immediate next steps



# 3 SUBMISSION

Grantee submits the required documentation to the DOE PO on their status and/or system.

## IF AUDIT IS NOT CURRENTLY DOE APPROVED:

Grantee submits Analytic Methods (per WPN 16-8) and audits of benchmark buildings.

## IF A PRIORITY LIST IS USED:

Grantee also submits Priority List(s) and justification of Priority List(s).

## IF SEEKING APPROVAL FOR MULTIFAMILY:

Grantee submits required info for multifamily.



# 4 EVALUATION

PO and review team return comments to Grantee within **3-4 weeks** (4-6 weeks for previously unapproved audits).



# 5 APPROVAL

If DOE has no comments or comments can be resolved easily by phone or e-mail, DOE issues approval memo within 2 weeks of final resolution. If DOE comments are substantial, Grantee responds to DOE comments. PO and review team review and return comments or accept Grantee's resolution within 3-4 weeks of Grantee's resubmittal.



## HEALTH & SAFETY

While the health and safety of clients and crews is paramount in the Weatherization Assistance Program, expenditures are limited to the cost of eliminating energy-related health and safety hazards that are necessary before, or result from, the installation of energy conservation measures. Weatherization Subgrantees often use other funding sources to correct problems that are beyond the scope of allowable DOE weatherization expenditures.

Weatherization agencies conduct 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.
- 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.
- 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).
- Procedures to identify pre-existing health conditions in homes and clients, address these problems, and ensure that Weatherization does not exacerbate these problems.

## Weatherization Readiness

The list of issues Weatherization is able to address with DOE Weatherization funds is limited, but the list of issues discovered by technicians conducting the initial home energy audits is not. Technicians discover things like pest infestations, asthma triggers in homes with sensitive residents, slip and fall hazards in homes of the elderly, structural weaknesses and so much more.

The Weatherization Assistance Program is, at its core, an energy efficiency program. The Program's success is largely measured in terms of **energy saved**. The Program recognizes that homes and buildings work as a system of interrelated parts and applies this **"House as a System"** methodology to the assessment and treatment of homes. Weatherization understands it is not effective to insulate an attic if the roof leaks and will degrade the insulation's performance, so the roof is repaired before insulation is installed, or the home is **deferred**.

In recognition of the limitations of WAP funding and the funding possibilities outside of Weatherization, DOE introduced the term **"weatherization readiness"** in 2011.

### **Weatherization readiness means:**

- The home is in appropriate shape to accept the full range of energy conservation measures called for by the appropriate audit or priority list.
- The home does not need any additional health and safety work that cannot be addressed with DOE funds during weatherization.

Incorporating the principle of **"weatherization readiness"** into Weatherization is a two-fold approach, and has two-fold benefits.

### **The Approach:**

- Refine the intake process to determine the best candidates – only scheduling audits for those homes that at intake are perceived as *"weatherization ready."*
- Track deferrals to identify rates of deferral, and the most common causes for deferral.

### **The Benefits:**

**Reduce sunk costs.** By ensuring the screening process identifies issues that cannot be addressed with DOE Weatherization funds, 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 every dollar invested goes to the benefit of the eligible client and that only happens if the home gets weatherized.

**Improve leveraging capacity.** By tracking deferrals, Grantees gain a clear 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 chances of securing that funding.

## MONITORING AND OVERSIGHT

Monitoring is one of the primary ways to ensure the public purpose of the Program is being met at all times. 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.

Weatherization has multiple layers of monitoring activities. 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 by analyzing criteria such as:

- Unresolved programmatic or technical issues.
- New Grantee staff (e.g. Program Manager, Energy Auditor).
- "At Risk" Subgrantees.
- The amount of time since the last onsite monitoring visit.

Additionally, Project Officers perform **quarterly desktop monitoring** of program and fiscal reports. With monitoring, Project Officers assist their Grantees to:

- Meet the requirements of the Program.
- Resolve any outstanding monitoring assessments (findings, concerns, etc.) and issues.
- Identify training and technical assistance needs.
- Document weatherization best practices.

### COMPREHENSIVE MONITORING AREAS

Subgrantee Review	Health & Safety	Staff or entity performing the monitoring
Financial/Administration	Equipment/Inventory/Materials	
Policy Advisory Council (PAC)	Grantee Monitoring	Monitoring procedures/follow-up
Rental	Training & Technical Assistance	
Energy Audits/Field Work	Feedback and Reporting	

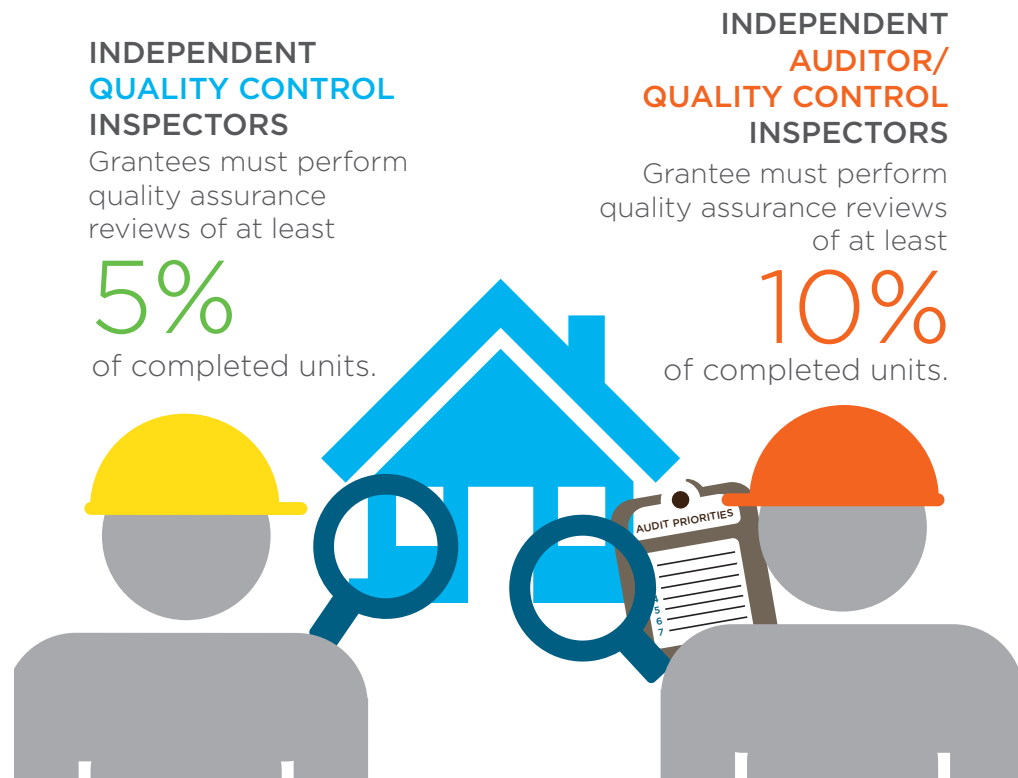
## Grantee Oversight

Per [WPN 16-4](#) 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:

- Fiscal review of all 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 15-4, Section 3](#), Grantees are required to follow a DOE prescribed **Quality Control Inspector (QCI)** policy to determine the percentage of units to monitor. Figure 11 shows the Grantee monitoring requirement difference for when the energy auditor and QCI are either different or the same.

Figure 11: QCI Requirements



Grantees are also 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 Grantee and DOE.

Figure 12: Monitoring Layers

