

**U.S. Department of Energy  
WEATHERIZATION ASSISTANCE PROGRAM (WAP)  
WEATHERIZATION ANNUAL FILE WORKSHEET**

**(Grant Number: EE0007959, State: WI, Program Year: 2018)**

**IV.1 Subgrantees**

<b>Subgrantee (City)</b>	<b>Planned Funds/Units</b>
Advocap Inc (Fond du Lac)	\$355,961.00 45
Ashland County Housing Authority (Mellen)	\$352,522.00 45
CAP Services Inc (Stevens Point)	\$295,369.00 38
Central Wisconsin CAC (Wisconsin Dells)	\$287,661.00 37
Community Action of Rock/Walworth Counties (Janesville)	\$369,338.00 47
Community Relations - Social Development Commission (Milwaukee)	\$739,938.00 96
Coulecap Inc (Westby)	\$264,925.00 34
Hartford Community Development Authority (Hartford)	\$150,356.00 19
Indianhead CAA (Ladysmith)	\$325,286.00 41
La Casa de Esperanza (Waukesha)	\$523,142.00 67
La Casa de Esperanza-Milwaukee (Waukesha)	\$739,938.00 96
Newcap Inc (Oconto)	\$545,482.00 70
North Central CAP Inc (Wisconsin Rapids)	\$446,877.00 57
Outagamie County Housing Authority (Appleton)	\$226,415.00 29
Partners for Community Development (Sheboygan)	\$348,299.00 44
Partners for Community Development Milwaukee (Sheboygan)	\$369,969.00 48
Project Home (Madison)	\$293,628.00 37
Racine/Kenosha CAA (Racine)	\$551,847.00 71
Southwest Wisconsin CAP (Dodgeville)	\$137,435.00 17
West Central Wisconsin CAA (Glenwood City)	\$367,855.00 47
Western Dairyland EOC (Independence)	\$229,361.00 29
<b>Total:</b>	<b>\$7,921,604.00</b> <b>1,014</b>

**IV.2 WAP Production Schedule**

<b>Weatherization Plans</b>	<b>Units</b>
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Total Units (excluding reweatherized)	964
Rewatherized Units	50
Note: Planned units by quarter or category are no longer required, no information required for persons.	

Average Unit Costs, Units subject to DOE Project Rules		
<i>VEHICLE &amp; EQUIPMENT AVERAGE COST PER DWELLING UNIT (DOE RULES)</i>		
A	Total Vehicles & Equipment (\$5,000 or more) Budget	\$0.00
B	Total Units Weatherized	964
C	Total Units Rewatherized	50
D	Total Dwelling Units to be Weatherized and Rewatherized (B + C)	1,014
E	Average Vehicles & Equipment Acquisition Cost per Unit (A divided by D)	\$0.00
<i>AVERAGE COST PER DWELLING UNIT (DOE RULES)</i>		
F	Total Funds for Program Operations	\$6,372,160.00
G	Total Dwelling Units to be Weatherized and Rewatherized (from line D)	1,014
H	Average Program Operations Costs per Unit (F divided by G)	\$6,284.18
I	Average Vehicles & Equipment Acquisition Cost per Unit (from line E)	\$0.00
J	Total Average Cost per Dwelling (H plus I)	\$6,284.18

**IV.3 Energy Savings**

Method used to calculate savings: <input type="checkbox"/> WAP algorithm <input checked="" type="checkbox"/> Other (describe below)			
	Units	Savings Calculator (MBtus)	Energy Savings
This Year Estimate	1014	N/A	32463 *
Prior Year Estimate	909	N/A	24893 *
Prior Year Actual	895	N/A	0 *
* Energy Savings values were manually entered.			
<b>Method used to calculate savings description:</b>			
<p>For all but the most recent program year, natural gas and electricity savings for weatherized homes are measured using monthly utility billing data collected from Wisconsin's five major investor-owned utilities. Billing data from pre- and post-weatherization periods are weather normalized, and pre-weatherization billing data from future program participants are used to correct for non-program factors. The consumption differences between the pre- and post-weatherization billing periods reflect the gas and electric savings for each treated home. Savings estimates are then coupled with data taken from the program's tracking database to develop a statistical model to evaluate savings by measure installed, housing type and other characteristics.</p> <p>PY18 savings estimates (for homes that do not yet have post-weatherization history) are projections based on the measures installed and the statistical model of energy savings validated by data from PY17 and earlier.</p> <p>Energy savings, based on Wisconsin's 2018 Self Evaluation Savings (SES) study are projected to average 190 heating therms, or 21% per household and 1,370 baseload kilowatt hours (kWh), or 16% per household. Based on the fuel costs used in Wisconsin's Weatherization Assistant parameters, this equals an annual savings of \$500 per household served. The total energy savings for the planned 1,014 weatherized units in Wisconsin using Department of Energy (DOE) funds are projected to be 32,463 MBtus annually, amounting to \$5.8 million over the approximate 20-year life of the weatherization measures installed.</p> <p><b>Fuel Prices for Weatherization Modeling</b></p> <p>The Division of Energy, Housing and Community Resources reviewed the procedures for identifying base-year fuel prices and the fuel-price-change indices used in Weatherization Assistant.</p> <p><b>Base-Year Price Identification</b></p> <p>Wisconsin's methods for establishing base-year prices reflects the concept that energy prices will generally revert to the mean — i.e., that</p>			

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market prices will fluctuate over time and that market forces (supply and demand) will interact and revert to a mean price. In this context, the historic average price is relatively indicative of the long-term trend.

Fuel Oil, Propane (L.P.), Electric

Wisconsin uses the average price from the previous five heating seasons to identify the base-year price for these fuels.

Natural Gas

Based on the upward trend in natural gas prices as forecasted by the U.S. Energy Information Administration, Wisconsin blends five historic-price data points and two anticipated-price data points to identify the base-year price for natural gas. The base-year price equals the mean of five years of historic heating-season prices and two years of anticipated heating season prices (Source: EIA Short Term Outlook). The Division believes this approach is the best alternative considering that 1) The downward trend in natural-gas prices over the past several years may be reversing, and 2) A blend of historic prices and anticipated prices would be a logical approach for identifying the base-year price for natural gas in the financial modeling.

**Fuel-Price-Change Indexing**

To forecast future annual fuel-price changes, Wisconsin uses data from the EIA's Annual Energy Outlook (East North Central region).

The Division will use the base-year prices for Program Year 2018-2019, with the first full year of energy savings encompassing the heating season of 2019-2020 (i.e., the first full winter after weatherizing).

**IV.4 DOE-Funded Leveraging Activities**

Wisconsin is applying for \$300,000 in DOE leverage funds to offset the costs of staff salary, fringe, overhead and supplies and services to operate the joint DOE/Public Benefits weatherization assistance program. Leveraged funds produce program design work, assist subgrantees in training new personnel, work with property owner associations to increase the number of weatherized rental units, and coordinate utility providers' contributions to the state Public Benefits funds.

DOE Leverage funds are vital to the effective use of state Public Benefits funds to increase the number of units and measures completed with DOE funds. Wisconsin's Public Benefits funds enable the weatherization program to address water heater conversion, freezers, and electrical use, thereby providing a "whole house" approach to the program.

The combined weatherization program incorporates the DOE minimum program requirements of:

- Household eligibility
- Use of an approved audit system or measures list
- Household priority for service
- Meet or exceed materials standards
- Average DOE funds per unit does not exceed DOE's maximum
- Preference to existing DOE subgrantees

In addition to an estimated \$37 million of the Public Benefits funds, approximately \$17 million in Low Income Home Energy Assistance Program (LIHEAP) funds will be used to weatherize units.

Non-DOE funded units are reported as leveraged units.

**IV.5 Policy Advisory Council Members**

Check if an existing state council or commission serves in this category and add name below

Brad Paul	Type of organization: Non-profit (not a financial institution) Contact Name: Brad Paul Phone: 6082444422 Email: <a href="mailto:bpaul@wiscap.org">bpaul@wiscap.org</a>
Brad Rose	Type of organization: Unit of State Government Contact Name: Phone: 6082679491 Email: <a href="mailto:bradley.rose@wisconsin.gov">bradley.rose@wisconsin.gov</a>
	Type of organization: Local agency

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Daliska Smith	Contact Name: Daliska Smith Phone: 4149062821 Email: <a href="mailto:dsmith@cr-sdc.org">dsmith@cr-sdc.org</a>
Diane Zettelmeier	Type of organization: Unit of Local Government Contact Name: Diane Zettelmeier Phone: 4142895744 Email: <a href="mailto:diane.zettelmeier@milwaukeecountywi.gov">diane.zettelmeier@milwaukeecountywi.gov</a>
Gary France	Type of organization: Other Contact Name: Gary France Phone: 7153591075 Email: <a href="mailto:garv@francepropane.com">garv@francepropane.com</a>
Geraldine Spielbauer	Type of organization: Utility Contact Name: Geraldine Spielbauer Phone: 6082527295 Email: <a href="mailto:jspielbauer@mge.com">jspielbauer@mge.com</a>
Jennifer Fischer	Type of organization: Unit of Local Government Contact Name: Jennifer Fischer Phone: 6082407460 Email: <a href="mailto:fischer@countyofdane.com">fischer@countyofdane.com</a>
Kelly Swan	Type of organization: Unit of Local Government Contact Name: Kelly Swan Phone: 7154684760 Email: <a href="mailto:kswan@co.washburn.wi.us">kswan@co.washburn.wi.us</a>
Lucio Fuentez	Type of organization: Local agency Contact Name: Lucio Fuentez Phone: (920)459-2788 Email: <a href="mailto:lucio@partners4cd.com">lucio@partners4cd.com</a>
Mike Hodges	Type of organization: Utility Contact Name: Mike Hodges Phone: 6088344566 Email: <a href="mailto:mhodges@wppienergy.org">mhodges@wppienergy.org</a>
Mike Mueller	Type of organization: Utility Contact Name: We Energies Phone: (414)221-2521 Email: <a href="mailto:michael.mueller@we-energies.com">michael.mueller@we-energies.com</a>
Patrick Boland	Type of organization: Utility Contact Name: Xcel Energy Phone: (651)639-4407 Email: <a href="mailto:patrick.j.boland@xcelenergy.com">patrick.j.boland@xcelenergy.com</a>
Phyllis Novinskie	Type of organization: Local agency Contact Name: Phyllis Novinskie Phone: (608)943-6909 Email: <a href="mailto:p.novinskie@swcap.org">p.novinskie@swcap.org</a>
Stephanie Drum	Type of organization: Non-profit (not a financial institution) Contact Name: Stephanie Drum Phone: 6082463444229 Email: <a href="mailto:drum@eri-wi.org">drum@eri-wi.org</a>
Steve Budnik	Type of organization: Unit of Local Government Contact Name: Steve Budnik Phone: 7154218620 Email: <a href="mailto:sbudnik@co.wood.wi.us">sbudnik@co.wood.wi.us</a>
Timothy Bruer	Type of organization: Non-profit (not a financial institution) Contact Name: Timothy Bruer Phone: 6082837678 Email: <a href="mailto:tbruer@esivi.com">tbruer@esivi.com</a>
Todd Stuart	Type of organization: Non-profit (not a financial institution) Contact Name: Todd Stuart Phone: 6084415740 Email: <a href="mailto:tstuart@wieg.org">tstuart@wieg.org</a>

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Valerie Filz	Type of organization: Local agency Contact Name: Valerie Filz Phone: (920)834-4621 Email: <a href="mailto:valfilz@newcap.org">valfilz@newcap.org</a>
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**IV.6 State Plan Hearings (Note: attach notes and transcripts to the SF-424)**

Date Held	Newspapers that publicized the hearings and the dates the notice ran
03/21/2018	The public hearing notice was advertised in the Wisconsin State Journal on March 9, 2018 (See Attachment 2). The public hearing notice was also distributed to Weatherization Assistance Program and Wisconsin Home Energy Assistance Program Grantees in a Division broadcast e-mail on March 9, 2018. The public hearing was held on March 21, 2018 at the Hotel Marshfield, 2700 S. Central Ave, Marshfield, WI at 11:30 am. The Public Hearing transcript is included as Attachment 3.

**IV.7 Miscellaneous**

**Policy Advisory Council Meeting**

Wisconsin's Policy Advisory Council (PAC), named the Low-Income Energy Advisory Committee (LIEAC), was established to provide feedback to the Division on weatherization and energy assistance issues, including approval of annual plans. LIEAC meets up to four times per year, and as-needed. Per 10 CFR 440.17, LIEAC members are broadly representative of organizations and agencies, including consumer groups that represent low-income persons, particularly elderly, and low-income persons with a disability and low-income Native Americans in Wisconsin.

A LIEAC meeting was held via conference call April 3, 2018. Wisconsin's DOE Annual and Master Plans were unanimously accepted and approved by LIEAC. The meeting minutes of the LIEAC meeting are included as Attachment 1.

**Recipient Business Officer**

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**American Customer Satisfaction Index (ACSI) Survey**

During the past year, and in coordination with our subgrantee network, the State of Wisconsin has been discussing feedback received via the ACSI survey and drafting an action plan to improve program operations. Per WAP Memorandum 25, our state report was distributed to subgrantees on May 16, 2017 at the Annual Subgrantee Meeting. Attendance is required by at least one representative from each Subgrantee at this meeting.

A draft action plan was presented to Weatherization grantees at the HE+ Training Event – Weatherization Policy Update session on February 7, 2018 for review and to solicit feedback. The Division will continue to refine and enhance the Action Plan and provide opportunities for input from the grantee network. The ACSI Wisconsin Action Plan is included as Attachment 18.

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This worksheet should be completed as specified in Section III of the Weatherization Assistance Program Application Package.

**V.1 Eligibility**

**V.1.1 Approach to Determining Client Eligibility**

Provide a description of the definition of income used to determine eligibility

Owners and renters with income levels up to 60% of the State Median Income may receive services. Priority is given to households with children under 6, elderly or disabled members, and households with a high energy burden.

Describe what household eligibility basis will be used in the Program

Wisconsin adopted for its Weatherization Assistance Program (WAP) eligibility the same guidelines used statewide in the Low Income Home Energy Assistance Program (LIHEAP). A household is eligible for weatherization services when the Wisconsin Department of Administration, Division of Energy, Housing and Community Resources (DEHCR or 'Division') has certified the household to be eligible for LIHEAP, based on the following criteria from 10 CFR Part 440.22:

(a) A dwelling unit shall be eligible for weatherization assistance under this part if it is occupied by a family unit:

(1) With an income at or below 200 percent of the poverty level determined in accordance with criteria established by the Director of the Office of Management and Budget.

(2) Which contains a member who has received cash assistance payments under Title IV or XVI of the Social Security Act or applicable State or local law at any time during the 12-month period preceding the determination of eligibility for weatherization assistance; or

(3) If the State elects, is eligible for assistance under the Low-Income Home Energy Assistance Act of 1981, provided that such basis is at least 200 percent of the poverty level determined in accordance with criteria established by the Director of the Office of Management and Budget.

**Income Verification**

Wisconsin has a combined LIHEAP and WAP application intake process that provides all of the applications for weatherization subgrantees. The Wisconsin Home Energy Assistance Program (WHEAP) income limit equaling 60% of State Median Income (SMI) is used to provide consistency of service and allow shared systems and programming for data collection, entry, and reporting. If a household is over 60% State Median Income (SMI) and ineligible for Energy Assistance but below 200% Federal Poverty Level (FPL), then they are eligible for Weatherization Services and referred to subgrantee. Since 60% SMI is very close to 200% FPL in WI, this applies to a very small number of households.

The Division has established written policies, incorporated in the Weatherization Program Manual, which set forth procedures to determine dwelling unit priority [440.16]. Written policies cover income eligibility, determination of rental property eligibility, and assurance of tenant benefit from weatherization services. An energy audit must be completed within 12 months from the certification date or the eligibility of the household needs to be re-established by re-applying for WHEAP. Wisconsin complies with all household and building eligibility criteria outlined in 10 CFR 440.22.

Describe the process for ensuring qualified aliens are eligible for weatherization benefits

Non-citizen applicants to the LIHEAP program in Wisconsin are determined to be either eligible non-citizens or ineligible non-citizens. Eligibility for non-citizens is determined based on an individual's lawful status in the United States as defined by the United States Citizenship and Immigration Services (USCIS). Only Eligible Non-citizens are eligible for LIHEAP and the Wisconsin Weatherization Assistance Program.

In order to be defined an Eligible Non-citizen, an individual must have a valid Social Security Number (SSN) issued by the Social Security Administration, which passes the verification system in the Home Energy Plus (HE+) System. The HE+ System verifies the SSN of all household members through the Social Security Administration using the Master Customer Index database administered by the State of Wisconsin Department of Health Services. In addition to a valid SSN, the individual's lawful status must be one of the eligible statuses listed in the WHEAP Operations Manual, Section 2.2.4 - Student Status and WHEAP Eligibility. Applicants are required to provide non-expired documentation which validates their lawful status in the United States.

Individuals who do not have a valid SSN and/or immigration status are marked as Ineligible Non-citizens and are not eligible for either program.

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**V.1.2 Approach to Determining Building Eligibility**

Procedures to determine that units weatherized have eligibility documentation

The Division has established written policies, incorporated in the Weatherization Program Manual, which set forth procedures such as verifying ownership, denying or deferring services, and using Weatherization Assistant, to determine building eligibility.

The combined LIHEAP and WAP application intake process provides all of the applications for weatherization subgrantees. The Wisconsin Home Energy Assistance Program (WHEAP) income limit equaling 60% of state median income will be used to provide consistency of service and allow shared systems and programming for data collection, entry, and reporting.

Describe Reweathering compliance

Wisconsin permits the re-weatherization of units completed through September 30, 1994. Units previously weatherized may receive any additional measures as determined by an assessment utilizing DOE approved energy audit protocol. By following this procedure, Wisconsin is identifying units that did not receive the full complement of weatherization services previously. Otherwise, a unit may only be reweatherized if such dwelling unit has been damaged by fire, flood, or an act of God and repair of the damage to weatherization materials is not paid for by insurance, per 440(18)(2)(ii).

Describe what structures are eligible for weatherization

To be considered for weatherization, a dwelling must be a structure, including a stationary mobile home, apartment, group of rooms, or a single room occupied as separate living quarters (including historic properties), and qualified shelters or other group facilities. Government institutions, halfway houses, nursing homes, recreational vehicles (RVs), cars, trucks or tents are not eligible dwellings for weatherization services. Properties having only a commercial use are not eligible for weatherization. Properties fifty years old or older must be reviewed for possible historic status or features and shall be weatherized only in such a way as complies with the State Historic Preservation Officer (SHPO) Programmatic Agreement. Weatherization of a dwelling unit which is designated for acquisition or clearance by a Federal, State, or local program within 12 months from the completion date of weatherization is not allowed.

Describe how Rental Units/Multifamily Buildings will be addressed

Wisconsin has an extensive policy regarding the weatherization of rental property, including procedures to document that the tenant receives the benefits of weatherization [440.22(b)]. Owners of rental buildings containing two or more units may be required to contribute to the cost of weatherization [440.22(d)].

Language from the Wisconsin Weatherization Program Manual addresses the DOE requirements regarding limits on rent increases and undue enhancement. Renters are notified of the stipulations on rent increases. Compliance is monitored at on-site administrative review visits to subgrantees. Rental property owners must provide signature approval of work to be performed on a standardized Rental Work Agreement prior to commencement of work. Renters are provided a copy of the work agreement. The Division has established an arbitration procedure for disputes relating to violations of rental agreements. Tenants and property owners are notified of this process at the time of weatherization. As part of the rental agreement, landlords must agree to repayment of weatherization service for violation of the agreement [440.22(c)].

When DOE funds are used to weatherize multi-unit buildings, Wisconsin requires that 66 percent or more (50 percent for 2 and 4 unit buildings) of the dwelling units in the building are occupied by eligible applicants. Multi-family buildings that have 25 or more units are considered on a case-by-case basis and completion is managed by the local subgrantee with extensive oversight by the Division to ensure work completed meets all applicable federal requirements.

Describe the deferral Process

Wisconsin has a detailed policy and clear procedures for subgrantees to follow when deferral is necessary. Subgrantees are required to provide notification of deferral within five working days upon decision to defer services, and provide a reasonable timeframe for applicants to address the cause of the deferral. Reasons for deferral include structural or other issues that would limit the effectiveness or reduce the lifetime of measures (such as in a home needing roof replacement). There are also health and safety reasons that may warrant deferral of a unit. Additional information on deferrals is found in the the Health and Safety Plan (Attachment 9).

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**V.1.3 Definition of Children**

Definition of children (below age): **6**

**V.1.4 Approach to Tribal Organizations**

Recommend tribal organization(s) be treated as local applicant?

If YES, Recommendation. If NO, Statement that assistance to low-income tribe members and other low-income persons is equal.

The Division provides weatherization services to eligible Native American households both on and off reservations [440.16(f)]. Where a Tribal household is in alignment with the DOE priority definition, the Tribal referrals shall be given priority for service by weatherization subgrantees. Off-reservation households of Native Americans will be served by local agencies in that service area according to the same prioritization as non-Native households.

**V.2 Selection of Areas to Be Served**

Weatherization services are provided on a statewide basis. Funding allocations among the subgrantees [440.15(b)] are made according to a population-weighted degree-day formula, shown below, which complies with the requirement to allocate on the basis of relative need. The formula is used to determine overall agency funding except for Training and Technical Assistance (T&TA). Any additional DOE funds received during the year will be allocated to local agencies according to the same formula.

The allocation formula is:

$CDD \times CPH \times 100 = \text{County allocation}$   
SCDDH percentage

where:

CDD is the average county degree-days  
CPH is the county persons eligible for Low Income Home Energy Assistance (LIHEAP)  
SCDDH is the sum of the county degree days multiplied by LIHEAP eligible households

**V.3 Priorities for Service Delivery**

The State of Wisconsin requires subgrantees to prioritize weatherization services to the elderly, disabled persons, households with children under six years old and households with a high energy burden (440.16(b)). Eligible households are assigned a priority identification number and added to a referral list maintained by the Division. The priority identification number is generated based on factors including the household energy burden, and whether the household includes members that are elderly, disabled, or under six years old. The referral list is updated weekly and available to subgrantees electronically. Subgrantees select referrals from the list based on priority identification number and actual energy use data (when available).

**V.4 Climatic Conditions**

Extreme temperatures characterize Wisconsin's winter climate, with extended cold seasons in both autumn and spring [440.14(b)(2)]. Wisconsin's location near the center of the North American continent gives the state a typical continental climate with a large annual range in temperature. Wisconsin has major seasonal temperature changes and a significant north-south temperature gradient. The prevailing northwesterly wind pattern and complete lack of a mountain barrier toward the Arctic leave the state open to Arctic air masses. The coldest month, January, has average temperatures from 9 degrees in the northwest to 18 degrees in the southeast. These features indicate a strong need for weatherization. (Information from State Climatologist)



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For the purpose of reducing the cost of home heating, one mechanism for assessing climatic conditions is the use of degree days [440.14(b)(2)]. Degree days are the difference between the outside temperature and a constant 65-degree indoor temperature. In Wisconsin, the normal heating degree days range from a low of 6,894 to a high of 9,033.

**Wisconsin Normal Heating Degree Days**

**Thirty Year Average by County, 1981 – 2010**

County	Degree Days	County	Degree Days	County	Degree Days
Adams	7,917	Iowa	7,574	Polk	8,628
Ashland	8,828	Iron	8,828	Portage	7,917
Barron	8,628	Jackson	7,959	Price	8,828
Bayfield	9,033	Jefferson	7,333	Racine	6,894
Brown	7,955	Juneau	7,917	Richland	7,574
Buffalo	7,959	Kenosha	6,894	Rock	7,333
Burnett	8,628	Kewaunee	7,955	Rusk	8,628
Calumet	7,955	LaCrosse	7,959	Sauk	7,574
Chippewa	8,628	Lafayette	7,574	Sawyer	8,628
Clark	8,106	Langlade	8,391.50	Shawano	8,391.50
Columbia	7,333	Lincoln	8,106	Sheboygan	7,955
Crawford	7,574	Manitowoc	7,955	St. Croix	7,959
Dane	7,333	Marathon	8,106	Taylor	8,106
Dodge	7,333	Marinette	8,391.50	Trempealeau	7,959
Door	7,955	Marquette	7,917	Vernon	7,574
Douglas	9,033	Menominee	8,391.50	Vilas	8,828
Dunn	7,959	Milwaukee	6,894	Walworth	6,894
Eau Claire	7,959	Monroe	7,959	Washburn	8,628
Florence	8,391.50	Oconto	8,391.50	Washington	6,894
Fond du Lac	7,955	Oneida	8,828	Waukesha	6,894
Forest	8,391.50	Outagamie	7,955	Waupaca	7,917
Grant	7,574	Ozaukee	6,894	Waushara	7,917
Green	7,333	Pepin	7,959	Winnebago	7,955
Green Lake	7,917	Pierce	7,959	Wood	7,917

**V.5 Type of Weatherization Work to Be Done**

**V.5.1 Technical Guides and Materials**

Subgrantees shall, in a satisfactory manner, perform program activities according to the "Weatherization Assistance for Low Income Persons Program" regulations pursuant to Part A, U.S.C. 6861-6872 of Title IV of the Energy Conservation and Production Act, Pub. L94-385, 90 Stat. Et. Seq: Title 10, Chapter 2, Part 440 (published in the Federal Register), Friday, December 8, 2000, Vol. 65 No. 237.

Wisconsin uses the Wisconsin Weatherization Program Manual and the Wisconsin Weatherization Field Guide to pass along to its subgrantees policies and procedures to be followed. These and more guidance documents are located on the Division's Home Energy Plus website at <http://homeenergyplus.wi.gov/category.asp?linkcatid=494&linkid=122&locid=25>. The Division also issues periodic policy updates and other guidance through emails to subgrantees.

A balanced combination of energy conservation techniques will be utilized in compliance with DOE regulations [440.14(c)(3)]. Since July 1, 2012 major measures are selected by a computerized energy audit which has been approved by DOE. Typical work includes instrumented air sealing, attic and sidewall insulation, refrigerator replacement, electric water heater conversion, furnace replacements when necessary, and lighting replacement with Energy Star® qualified light bulbs (CFLs and LEDs). Wisconsin has applied to use LED lamps as an approved weatherization material via the WPN 16-8 Energy Audit tool submittal. Allowable expenditures are established to meet the requirements of 10 CFR Part 440.18. All work is performed according to DOE approved energy audit procedures and the Standard Work Specifications. All materials and specifications are met per the standards set forth in 10 CFR 440, Appendix A.

**WPN 15-4, Section 1: Definition of Work Quality Guidelines and Standards**

All measures and incidental repairs performed on client homes must meet the specifications provided in the Weatherization Program Manual and Weatherization Field Guide. The current versions of these guidance documents are available on the Home Energy Plus website: <http://homeenergyplus.wi.gov/category.asp?linkcatid=494&linkid=122&locid=25>.

During PY 2014 Wisconsin reviewed and revised the Weatherization Field Guide to ensure all standards meet or exceed the minimum standards in the relevant SWS requirements as required by WPN 15-4 Section 1. The Field Guide was finalized in April 2015, to comply with the appropriate SWS for each procedure and was approved by our DOE Project Officer. Wisconsin Request for Bid templates include a requirement that subgrantees ensure contractor agreements are tied to program requirements contained in technical guides

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and materials.

**WPN 15-4 Section 2: Communication of Guidelines and Standards**

All subgrantee agreements and contracts contain language which requires that work performed meets the technical specifications for field work provided in the Weatherization Program Manual and Weatherization Field Guide. The Grantee contract requires subgrantees install allowable weatherization measures per the Wisconsin Weatherization Program Manual, and federal and state regulations (Article 5. Scope of Work). All work is being performed in accordance with DOE-approved audit procedures (see V.5.2 below) and 10 CFR 440 Appendix A.

In April 2014, Wisconsin updated the Weatherization Program Manual to clarify that subgrantees are required to identify and provide the applicable technical standards and specifications in every procurement action. In addition, in April 2014 Wisconsin updated the Request for Bid templates used by subgrantees to ensure that contract agreements are tied to our program requirements and the related Standard Work Specifications (SWS) incorporated into our program documents. These updates were communicated to all subgrantees via e-mail in April 2014 and at our Annual Meeting in May 2014. Attendance at the Annual Meeting is mandatory for all subgrantees. Wisconsin is currently in the process of cross-walking the Standard Work Specification updates issued in 2017 with program documents to prepare for implementation of any necessary changes in Program Year 2018. The Weatherization Operators of Wisconsin, its subcommittee the Hudson Group, and the Division's Technical Development Work Group have provided input to proposed policy changes.

Updates are made to the Weatherization Program Manual and Weatherization Field Guide annually and the documents are distributed electronically to all subgrantees via broadcast e-mail and published on the Home Energy Plus website on or before July 1. A signature on the weatherization contract will serve as proof of receipt.

The Division provides follow-up and clarification upon request through our Help Desk (via e-mail and telephone), through broadcast e-mails sent to all subgrantees, and at quarterly Weatherization Operators of Wisconsin organization meetings.

**V.5.2 Energy Audit Procedures**

Audit Procedures and Dates Most Recently Approved by DOE

**Single-Family :** Energy audit procedures and related protocols and standards were approved by DOE on March 7, 2013. Per WPN 16-8 Wisconsin submitted it's Audit Procedures to DOE for review in January 2018 and the review is in-progress.

**Manufactured Housing :** Leveraged funds are used to weatherize manufactured housing. Wisconsin does not plan to seek DOE approval of our audit protocol for this housing type.

**Multi-Family :** Leveraged funds are used to weatherize multi-family buildings. Wisconsin does not plan to seek DOE approval of our audit protocol for this housing type.

Comments

**One to Twenty-Four Unit Buildings**

Wisconsin models all 1 to 24-unit buildings with NEAT. Each energy conservation measure must have an SIR of at least 1.00 and the total job SIR must also be at least 1.0. The Division has developed uniform, validated NEAT databases (including enabled measures and set-up libraries) for 1 to 4-unit buildings and 5 to 24-unit buildings. Agencies are required to use these data and an approved audit protocol to evaluate units and assure that program outcomes conform to DOE requirements. Agencies are required to follow the policies and procedures in the Wisconsin Weatherization Program Manual and [Wisconsin Weatherization Assistant Guide](#), which includes detail on the measures that shall and shall not be included in the SIR calculation (see Weatherization Assistant Guide Chapter 4).

**Manufactured Housing**

Wisconsin uses MHEA (Version 8.9) to model manufactured homes if a bulk fuel or electricity is the primary space heating fuel. An SIR of at least 1.0 is required for all energy conservation measures. A cumulative (unit or building) SIR of 1.0 is required for all buildings released for production. In July 2015 Wisconsin discontinued the use of MHEA for auditing natural gas manufactured homes and began using a measures list program model. The measures list was developed based on extensive analysis of actual energy savings data from Wisconsin's Self Evaluation Savings studies, and a comparison of MHEA estimated costs to actual reported costs for the most recent program year. Only leveraged funds are used to weatherize manufactured homes.

**Multifamily**

The TREAT energy audit (Version.3.0 or newer) is used to model buildings with 25 units or more. Only leveraged funds are used to weatherize multifamily buildings and Wisconsin does not plan to renew the 25+ unit audit protocol.

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**V.5.3 Final Inspection**

A final inspection is performed by subgrantee staff on every unit prior to reporting the unit as completed [440.16(g)]. Generally, the final inspection will not be performed by the person who did the initial energy audit of a property. In all cases the final inspection is performed by someone other than staff who performed the weatherization work. The Division recommends subgrantees to perform “real-time” final inspections when possible, a process improvement initiative to have the final inspector on-site on the last day of scheduled crew work. This improves responsiveness and efficiency of program operations by allowing crew workers to immediately address unsatisfactory work.

**WPN 15-4 Section 3: Inspection and Monitoring of Work Using Guidelines and Standards**

All subgrantee final inspections for completions reported in PY 2016 and beyond will be performed by certified Quality Control Inspectors as outlined in WPN 15-4 Section 3. Wisconsin is implementing a Grantee-Developed Quality Control Inspection Policy to ensure compliance with WPN 15-4. The Division’s goal is to have a sufficient number of certified QCI professionals in the subgrantee network so that the certified QCI performing the final inspection did not perform the initial energy audit. Where applicable two options will be available for final inspection procedures:

- Final inspections are performed by a certified QCI professional who did not perform the initial energy audit and was not a crew member who completed the weatherization work. Quality assurance reviews will be performed on at least 5 percent of completed units.
- Final inspections are performed by a certified QCI who also performed the initial energy audit but was not a crew member who completed the weatherization work. Quality assurance reviews will be performed on at least 10 percent of completed units.

As of March 2018, Wisconsin has 65 QCI certified staff in the Weatherization Assistance Program network: 52 subgrantee staff, 6 Division Staff and 7 employees of subcontractors that complete monitoring visits (see Section V.8.3 Monitoring Activities). The Division’s goal is to have at least two certified QCI on staff at each subgrantee, where reasonable, and the Division is working with subgrantees to increase the number of QCI certified staff. QCI trainings and exams are being proctored by the Wisconsin Energy Conservation Corporation (see Section V.8.4 Training and Technical Assistance Approach and Activities), an IREC accredited training provider. The Division will be monitoring certification through the BPI website and certification dates provided by subgrantee staff to validate QCI credentials.

Inadequate inspection practices will be identified by Division Quality Assurance staff during monitoring visits (see Section V.8.3 Monitoring Activities). Disciplinary actions for inadequate inspection practices will be reviewed on a case-by-case basis. When disciplinary action is warranted, a corrective action plan will be developed and implemented based upon the significance of the finding.

**V.6 Weatherization Analysis of Effectiveness**

Quality assurance is the ongoing process of verifying that completed program work meets clear, measurable expected outcomes as established by program standards. Every weatherized unit receives a comprehensive inspection before the owner signs off on the completed work. The Division continually gathers and analyzes data on housing types, frequency of measures installed, costs of installed measures and the direct effect of the installed measures. Much of the data is provided directly by subgrantees in the individual job reports completed in the Wisconsin WAP online reporting database, WisWAP. At least five percent, and up to 10 percent, of completed units are inspected and tested in monitoring inspections completed by Division staff and contractors. Using this data, Division Quality Assurance staff select units for monitoring to ensure the on-site monitoring visits provide the best opportunities to review measures that may need improvement at a local level and to review jobs that may have higher measure costs. During the on-site visits, customers are interviewed to verify customers’ understanding of completed work and assess their level of satisfaction with the work performed. The data accumulated from these evaluations are used to continually improve training curriculums and to adjust audit protocols, work standards, and procurement specifications.

The Division contracts with Seventhwave and Wisconsin Energy Conservation Corporation (WECC) for independent and objective evaluation of program processes and outcomes. The Self Evaluation Savings (SES) study, conducted annually, provides critical data on the projected energy and monetary savings of weatherization work performed. Utility bill information from approximately 10,000 households is analyzed in comparison with WisWAP data regarding measures installed in thousands of weatherized units. Utility information for income-qualified households not yet weatherized is utilized to control for weather and other non-program effects. Through this study, the Division can analyze trends in savings over multiple years and compare energy savings and measure costs among the subgrantees. The SES assists in assessing program effectiveness, directing policy decisions, identifying best practices being used at some agencies and targeting training and technical assistance resources.

The Division also contracts with Seventhwave and WECC for detailed analysis of audit practices and agency effectiveness. The Audit QA analysis, completed twice per year, aggregates data from every Weatherization Assistant audit performed, and evaluates a wide variety of data markers to assess auditor skills and

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accuracy. Data from these analyses informs our effort to create and update a comprehensive Weatherization Assistant users manual. The Audit Comparison Study, also completed twice per year, melds cost information from the Self Evaluation Savings study and the Audit QA analysis. The report assesses program measure cost trends, auditor accuracy in estimating costs, and the degree to which energy audits accurately forecast results. The data from these evaluations informs the Division's policy-making, training development and monitoring and support provided to subgrantees, allowing limited technical resources to be deployed for maximum effectiveness.

Communication is an essential part of the process. The Division participates with subgrantees in a variety of venues including the state association for Community Action Agencies (WISCAP), Weatherization Operators of Wisconsin (WOW), and the Hudson group (a WOW committee comprised mainly of energy auditors and production managers from subgrantee weatherization programs). These groups encourage open discussion regarding ways to improve low-income weatherization services and provide a setting to inform grantees of program modifications. The Division supports the formation of focus groups to support the development of energy related technology such as the Technical Development Work Group (TDWG). These groups provide technical support and data to evaluate proposals and assess measure implementation.

The Division sponsors annual and quarterly Grantee Meetings for specific needs to ensure all subgrantees receive information regarding contract and policy updates. Subgrantee attendance at state sponsored Grantee Meetings is required.

#### **V.7 Health and Safety**

Wisconsin's Health and Safety Plan is included in PAGE as Attachment 9.

#### **V.8 Program Management**

##### **V.8.1 Overview and Organization**

The Division contracts with Community Action Agencies and a variety of public and non-profit entities to deliver weatherization services. Many of these subgrantees also administer housing programs such as CDBG and HOME funded programs (including rehab and first time homebuyer). This results in a comprehensive set of services being offered to the state's low-income customers. In addition to the Low-Income Weatherization Assistance Program, the Division also houses the Low-Income Home Energy Assistance Program and an Emergency Furnace Program. Together, these low-income assistance programs make up Home Energy Plus. The Division also maintains close working relationships with the state's utilities to ensure coordination of services between programs offered by utilities and the state's Weatherization Assistance Program.

The Division retains staff to conduct on-site monitoring of contracts, perform field inspections of projects, and provide technical assistance and oversight to subgrantees. The Low Income Energy Advisory Committee (LIEAC) is established to meet the requirements of 440.17. As required by 440.17(a)(1,2,3), membership is selected for special qualifications and sensitivity to the problems of low-income persons, including their weatherization and energy conservation needs. Membership is also broadly representative of organizations and agencies, including consumer groups that represent low-income persons in their area – particularly the elderly, disabled, and Native Americans. The committee has responsibility for advising the Division on the development and implementation of its Weatherization Assistance Program.

##### **V.8.2 Administrative Expenditure Limits**

Administrative expenditures are limited to 10% of the total DOE Grant allocation and is split 5% to State Administration and 5% to subgrantee administration.

##### **V.8.3 Monitoring Activities**

Monitoring is completed to assure that subgrantees are operating the program according to DOE rules and regulations and policies established by the Division, and to determine local training needs. The monitoring activities described in this plan apply to DOE funded activities.

The Division's Quality Assurance (QA) Section staff conducts monitoring of subgrantees. The in-house QA Section includes two administrative review monitors, five field monitors, one support staff and the section chief. All monitors received the following trainings and related certifications;

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- Lead Safe Weatherization
- Lead Renovator
- Asbestos Operations and Maintenance
- Weatherization Assistant training
- Quality Control Inspector

In accordance with WPN 15-4 Section 3, the Division's QA Section staff have obtained QCI certification as summarized in Section V.5.3. QA staff also complete further trainings and certifications depending on their monitoring focus. Supplemental trainings include topics such as Asbestos Supervisor, forced air heating systems, boilers, procurement, process improvement, air sealing, mobile home weatherization, ventilation, and OSHA construction safety trainings. The QA section includes individuals with extensive experience managing subgrantee weatherization programs, and with building science, construction engineering or architectural backgrounds.

In addition to QA Section staff, one or more technical inspection subcontractors will be used as needed to complete additional on-site reviews. In July 2014 the Division entered into two contract agreements for technical inspection services, each a two year term, with the Wisconsin Energy Conservation Corporation (WECC) and Energy House, Inc., WECC has four certified QCI on staff and Energy House has three certified QCI on staff performing technical inspections for the Division.

The subcontractors, under the direction of QA Section staff, evaluate units to determine if they were appropriately weatherized and if the quality of the workmanship meets the standards established by DOE and the Division. Although the subcontractors may conduct on-site evaluations of units weatherized, subgrantee oversight will continue to be primarily the responsibility of the Division and part of the QA Section's duties. The Weatherization QA Section staff will conduct follow-up inspections where required. Subgrantees are not allowed to use additional DOE funds on reported jobs that require reworks or warranty work.

Training and Technical Assistance (T&TA) funds pay for 5.8 QA Full Time Equivalent (FTE) positions. The Division uses Leveraging Funds to pay for 2.95 QA FTE positions. The remaining division QA FTE positions are paid with non-DOE funds from other sources.

The estimated travel costs for monitoring efforts for July 1, 2018 – June 30, 2019 is approximately \$52,081. Estimated travel costs for monitoring efforts will be funded by T&TA and Leveraging funds. The remaining portion of expenses will be paid out of non-DOE funds.

The Division is responsible for monitoring and oversight of work performed by subgrantees and will visit each subgrantee at least annually. More frequent QA reviews will be performed if quality issues are discovered during initial visits. A minimum five percent sample of DOE funded units will be inspected. As noted in Section V.5.3, a minimum of 10 percent of each subgrantee's DOE funded units will be inspected if the final inspection and the initial audit are completed by the same subgrantee staff person.

Both administrative review staff and field monitors complete extensive file reviews on inspected units, and on an added sample of other units. If significant deficiencies are discovered concerning health and safety violations, poor quality of material installation, or major services missed, the Division will increase either the number of units monitored, or increase monitoring of subgrantee contract management practices as applicable until the deficiencies are remedied. Agencies that have significant deficiencies will be referred to receive Production Based Training or be required to attend training activities provided through the Standard Training Plan or other specialized technical assistance to improve performance (see Section V.8.4). Required grantee staff qualifications and training are tracked by our T&TA subcontractor and compliance is verified during Administrative Reviews by Division staff.

The Division has a dedicated Quality Assurance monitor that provides training and technical assistance related to program management. This monitor has extensive management experience in the Weatherization Assistance Program and assists subgrantees with issues such as management of program support costs, budgeting, supervision of field staff, and client complaints. The Division also has an established relationship with a CPA who has broad experience in management of not-for-profit agencies and programs, Both provide detailed assistance and guidance to agencies as they seek to continuously improve their programs, processes and outcomes

Comprehensive monitoring of subgrantees is conducted as a three-part set of activities fulfill the requirements of WPN 16-4. The combination of these monitoring activities in conjunction with periodic report assessments provides an in-depth look at all program components. Monitoring checklists and tools used by both Administrative Review (AR) and field monitoring staff are attached. The QA Section completes all three sets of activities for each subgrantee, which are:

1. Administrative reviews
2. Dwelling inspections
3. Client file reviews

**Activity 1:**

The administrative review covers the general operations of the subgrantee with a comprehensive examination of programmatic, financial, and management practices and outcomes. The administrative review combined with the agency's own fiscal audit give the Division an overview of the subgrantee's administrative capacity and capability. This includes a review of subgrantee financial management, accounting systems and operations, invoicing, purchasing and procurement procedures, inventory tracking, payroll and personnel, subcontractor management and quality assurance monitoring methods, vehicle and equipment lists, health and safety policies, record retention, quality assurance procedures and additional aspects of local program administration and organization. Checks are made that financial procedure manuals exist and are followed. Included in the

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monitoring of the fiscal operations is a review of cost allocation plans. Desktop monitoring of WisWAP system reports and reports submitted by the subgrantee in advance of the on-site administrative review contribute greatly to the information profile of the agency.

Each agency receives an on-site visit by Division administrative review staff to review a sample of materials to confirm that they meet or exceed specifications. On-site staff will also check the subgrantee's purchasing records to see that appropriate documents are maintained demonstrating that the materials purchased meet or exceed specifications. For subgrantees that maintain a warehouse, a spot check of Safety Data Sheet (SDS) availability will be completed.

Data on production and expenditures are reviewed monthly to ensure that the statewide average cost per unit does not exceed expenditure limits and is in compliance with Division requirements. This data is available as needed by the QA Section from the WisWAP reporting database.

**Activity 2:** Dwelling unit inspections review the quality and appropriateness of work, using criteria that align with the quality of specifications outlined in WPN 15-4 Section 1, an assessment of the original audit, the accuracy and completeness of the pre- and post-work inspections, and other on-site items. Dwelling unit inspections include both in-progress and completed units, with particular emphasis placed on in-progress units and heating system replacement and repair. The Division will make additional on-site visits of work in-progress with all subgrantees to assess compliance with safe work practices, adherence to lead safe weatherization protocols, comprehensiveness of final inspections, and other applicable criteria. Training and technical assistance is provided during in-progress visits as needed. If imminent health or safety concerns are identified at a job site, the subgrantee is required to address such issues immediately. The Division will make as many visits as necessary and for which resources are available.

The Division will subcontract on-site inspections to a third-party as needed to supplement the monitoring described above. The subcontractor will submit a QA Inspection Worksheet, provide an extensive photo report of all weatherization work and any findings, and complete a Quality Satisfaction Questionnaire on each inspected home. Field monitors then complete extensive file reviews on every inspected unit, reconciling energy audit recommendations to the actual work completed and assessing the subgrantee's project management and internal QC process. Reports prepared by the subcontractor will be used to assist the Weatherization QA Section in meeting Quality Assurance goals. Both Division inspections and any subcontracted inspections are entered and compiled in the QA reporting database. Standard reports from this database guide monitoring inquiry and help the Division provide feedback to subgrantees.

QA inspection contractors that report inspections not completed, report findings clearly contradicted by their photo report or by the subgrantee's final inspection, fail to maintain required permits and insurance coverage, or deliver inspection reports that materially misrepresent the weatherization work completed may have current inspection contracts suspended. In especially egregious cases, as required by WPN 16-4, the Division will reserve the right to debar a contractor or any successor company from providing services to Wisconsin weatherization subgrantees. Wisconsin weatherization program standards provide clear guidance to subgrantees regarding contractor performance management, to conform with DOE requirements and State law. Included is specific information on actions or conditions that may trigger termination of a contract. The Division will require that subgrantees report every case where a contract is terminated for cause. As required by WPN 16-4, the Division may, upon review of the circumstances, debar that contractor from performing work for any subgrantee, for a specific period of time. The Division will comply with 2 CFR 200.338 and 2 CFR 180 when proceeding with debarment.

**Activity 3:** Client file reviews verify the completeness of documentation among other items. File reviews will be completed, as noted, for every building inspected. The Administrative Review team selects and reviews an additional sample of client files, including clients to whom service was deferred or denied. Numerous criteria are evaluated for each file including customer eligibility, accuracy of the energy audit, completeness of work order inspection certification forms and compliance with health and safety requirements. Compliance with policies related to service of rental properties will be verified. File reviews include clients deferred or denied service.

The Division's monitoring goals for this program year for each subgrantee are:

1. All 19 subgrantees will have an administrative review conducted.
2. On-site inspection will occur on a minimum of 5% of the DOE funded units weatherized. Inspections are distributed throughout the program year.
3. Inspection of files will occur on a minimum of 5% of the DOE funded units weatherized.

In addition, each subgrantee is required to have a full financial and compliance audit conducted annually unless total federal funding is less than \$750,000. If less than \$750,000, an audit will still be completed but not paid for with DOE funds. The Division reviews the annual audit and takes any actions necessary to correct problems identified by the audit, resolve questioned costs, or recover funds if necessary.

Upon completion of a monitoring visit, the QA staff holds an exit conference with the subgrantee staff. Discussions are had concerning the findings of the visit. Exit conference topics include:

1. Programmatic strengths
2. Programmatic weaknesses
3. Training needs and recommendations
4. Deficiencies requiring immediate corrective action

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A copy of the Division's QA report will be provided to the subgrantee within 30 days with any requirements specified. When minor issues are identified, they will be reported as "Concerns" and the subgrantee will be responsible for making sure the issue is addressed on future jobs. When other deficiencies are identified as not meeting program standards, subgrantees will be required to take corrective action within 30 to 45 days. When recurring deficiencies are identified, the Division will determine what additional action is appropriate.

The Division's QA field monitors follow up on items addressed in Administrative Reviews on a regular basis throughout the year. If a subgrantee fails to resolve an issue, the Division reserves the right to take any of the following actions: modification, suspension, or termination of the contract.

It is Division policy to have follow-up telephone contact regarding any complaints about quality of workmanship. If additional investigation is required, an on-site visit will be completed to verify the quality of work being performed meets federal and state specifications. In the event the quality of the work was substandard, the subgrantee will be required to correct the deficiency.

In addition to the monitoring activities described above, the Division utilizes several tools to continuously assess each subgrantee's risk of noncompliance with state and federal regulations. These tools include but are not limited to:

- The Contract Planning Workbook, a Division designed budgeting tool that assists in assessing prior experience with weatherization awards, personnel levels and training needs, and in determining labor rates.
- Comparison of estimated audit costs with actual reported costs, an analysis completed annually by WECC.
- Annual training plans developed by subgrantees.
- Annual financial audits completed by each subgrantee per 2 CFR 200.501.
- The annual State of Wisconsin Single Audit. The Weatherization Assistance Program is identified as a major program that is audited at least once every three years. Any audit finding is identified in a memo from the Legislative Audit Bureau

A DOE report on successes and significant problems will be completed regarding the level of subgrantee monitoring, major findings and resolutions, and training and technical assistance needs in all agency functions including programmatic, administrative, technical, and financial areas. Agencies that are considered by the Division to be high risk due to extensive production or quality issues, financial issues, or program management concerns may be required to create an action plan detailing an improvement strategy. The Division will report on the status and success of agency improvement strategies and training. Sensitive or significant noncompliance findings, such as waste, fraud, or abuse will be reported to DOE immediately.

The Division does not provide services directly to low-income families. As such, the provisions of WPN 16-4 related to "Direct Service Grantees" do not apply.

**V.8.4 Training and Technical Assistance Approach and Activities**

The Division characterizes training activities as a specific deliverable training session or a system of training sessions, while technical assistance activities are characterized as program development projects or maintenance. Both training and technical assistance deliverables are driven by the overall objectives of saving energy and reducing the state's carbon dioxide and other greenhouse gas emissions. To reach those objectives, the provider network must deliver quality installations, at the lowest possible cost, to the greatest possible number of dwellings. Every training or technical assistance activity delivered is considered in the light of those objectives.

Wisconsin anticipates allocating approximately 16% of the new DOE funding for Training and Technical Assistance (T&TA). These funds are retained by the State or allocated to subcontractors that provide the following services, by percentage:

41% - State staffed monitoring and oversight of subgrantees.

16% - Statewide T&TA services including the training program, technical assistance and development projects, and Quality Assurance inspections.

43% - Subgrantees' local T&TA budgets.

Of the statewide T&TA services (16%) and subgrantee's local T&TA budgets (43%), we anticipate approximately 60% of the DOE funds will be

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allocated for Tier 1 training and 40% for Tier 2 trainings.

In July 2017, the Division entered into a three-year contract agreement (with two optional two-year renewals) for Training and Technical Assistance services with the Wisconsin Energy Conservation Corporation (WECC).

As a part of the Training and Technical Assistance (T&TA) planning process, annual work plans are developed by WECC based on an annual subgrantee one-on-one training needs assessment, real-time surveys, and other DOE requirements, including but not limited to DOE Project Officer feedback. The work plans are reviewed internally by Division staff, the Weatherization Technical Development Work Group (TDWG), and various subcommittees of the Weatherization Operators of Wisconsin (WOW) organization. The work plan may be modified based on input from those groups.

Subgrantees are also required to develop an annual work plan. The local plans typically focus on training not available through the training contract, local training delivery systems, the costs of sending staff to trainings, and customer education.

**Training Activities**

Training is delivered through various mechanisms. Wisconsin's Tier 1 training program includes standard trainings encompassing occupation-specific training programs associated with the WAP Job Task Analyses. Wisconsin's Standard Training Plan provides a central training framework and addresses both short and long term training needs. The subgrantee T&TA plan, referenced above, provides funds to subgrantees for local training needs and initiatives.

Wisconsin's Tier 2 training program includes Production Based Training (PBT) and the biennial technical training and conference, Weatherize Wisconsin. The conference provides a venue for Wisconsin's weatherization professionals to showcase best practices and cost-effective solutions. PBT immediately targets subgrantees with deficiencies noted through Quality Assurance reviews and other performance factors, with the goal of providing training within a month of the referral.

Additionally, Wisconsin is the host state for the Better Buildings: Better Business Conference. The conference offers three days of workshops that focus on building performance, mechanical systems, diagnostic testing and customer education and services. Select sessions provide BPI continuing education credits.

The technical assistance work plan allows the Division to provide one-to-one guidance on financial management, PBT, and the Weatherization Assistant energy audits. In accordance with WPN 15-4 Section 4, WECC has integrated the respective Job Task Analysis requirements into Wisconsin's existing training curriculum.

**Tier 1 trainings:**

Energy Auditor – expires 12/14/2021

Consists of three courses: Basic Energy Auditor (5 day), Weatherization Assistant for Beginners (2 day), and Intermediate Energy Auditor (2.5 day)

Retrofit Installer Technician – expires 12/14/2021

Consists of one course: Retrofit Installer Boot Camp (4.5 day)

Crew Leader – expires 12/14/2021

Consists of one course: Weatherization Crew Leader (2 day)

Quality Control Inspector (QCI) - expires 1/23/2019

Consists of one course: Quality Control Inspector (3 day)

WECC will be starting the renewal/re-application process for the QCI accreditation during 2018.

Additional training may be offered based on the annual T&TA Workbook that each agency completes that includes a needs assessment survey.



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**Standard Training Plan**

Administered and delivered by WECC, the Standard Training Plan provides specific trainings that are available each year. This training system provides courses at the basic, intermediate, and advanced levels for installers, energy auditors, final inspectors, data management and support staff, and fiscal and program management staff. This allows Wisconsin to offer Tier 1 Training for all WAP personnel (as required by WPN 15-4, Section 4), as needed, based on the one-on-one reviews with the Subgrantees. Trainings cover 1-4 unit and 5+ unit site-built housing as well as manufactured homes, and include classroom, props and field components. Under the existing Standard Training Plan and funding level, the training system has the capacity to provide up to 1,400 training slots per year, with more than 60 training sessions. While a specific list of core trainings are delivered each year, the annual work plan will vary based on training needs assessments and funding levels.

As referenced above, subgrantees are required to develop an annual training and technical assistance plan for their allocation. As a part of the annual planning process, the Division provides subgrantees with a list of potential trainings for the upcoming year. They are asked to identify any training needs in addition to the Standard Training Plan, within their T&TA plan. Commonly identified training needs are added to the annual plan. Uncommon subgrantee training needs must be supported by the subgrantee's local plan. Each subgrantee is required to designate a Local Training Officer (LTO) and secondary LTO as a part of their T&TA plan. The LTO facilitates or provides local training, coordinates training for subgrantee employees and subcontractors, and works directly with WECC. Orientation and support are provided by WECC for the LTOs in assessing training needs, facility identification, and training skills development. Those LTOs that become successful trainers are added to the list of statewide trainers. The major responsibilities of the LTO are to:

1. Assist WECC to ensure that training is provided at the appropriate track and level for subgrantee staff.
2. Provide feedback and recommendations on trainings and related issues.
3. Contact WECC for PBT in response to Quality Assurance reviews.
4. Assist WECC in making arrangements for on-site facilities for Standardized Training Plan sessions held locally.
5. Work with WECC to provide training for other subgrantees, as needed and negotiated with the subgrantee.

**Customized Training and Support: Production Based Training (PBT)**

The PBT system, Wisconsin's Tier 2 Training program, was developed to provide immediate training for subgrantee staff and subcontractors with deficiencies noted through Quality Assurance monitoring or other performance factors. Typically, the process starts with Quality Assurance staff identifying specific needs and assessing the severity of the problem. An on-site trainer provided by WECC will then respond, usually within a month of the referral. Training is available in twenty-eight different topic areas, including administration, financial procedures, and weatherization technical requirements. Examples of PBT include advanced air sealing, and reconciliation of direct labor rates. These visits are sometimes combined with technical assistance funds to provide on-site support in a technical area. Visits for PBT are designed to provide training and support for specific crews or contractors whose work was cited by our Quality Assurance team. The support is hands-on technical training, delivered without a classroom, during the weatherization process. The trainer works directly with the installers to improve their skills while completing a job.

Additional training and technical assistance is available for subgrantees whenever our evaluations identify lower performance levels. Additional studies have been performed on high performing subgrantees to determine what helps them succeed so that information can be shared with others in the State.

**Required Subgrantee Training Attendance**

Subgrantee attendance is typically required at trainings or meetings where Division policy changes are reviewed. Specific trainings and applicable certifications are required for lead renovator, asbestos disciplines that allow for the safe weatherization of buildings, and proper work procedures when mold and moisture problems are noted.

Attendance for all training is tracked in a database maintained by WECC. The database is also used to track renewals for various certifications.

**Energy Auditor Certification**

Since 2003, Wisconsin has been providing annual five-day Basic Energy Auditor trainings with a certification test at the end of the training. The Basic Energy Auditor certification became mandatory for all energy auditors on July 1, 2009. Certification requires successfully completing the Basic Energy Auditor training and also the Beginning Weatherization Assistant for Auditors course. This includes training in both the National Energy Audit Tool (NEAT) and the Mobile Home Energy Audit (MHEA). Since 2007, 190 Energy Auditors have been trained and certified to work in Wisconsin's program. New energy auditors who are not yet certified must have their work reviewed by a certified energy auditor prior to issuing any work orders. Intermediate Energy Auditor training is also offered and IREC accreditation is in progress.

Per the Home Energy Plus Weatherization Program Manual, all persons auditing homes with the Wisconsin Weatherization Assistance Program shall obtain a Wisconsin Weatherization Basic Energy Auditor Certification within 12 months of beginning to audit homes for the program.

Staff working toward a Basic Energy Auditor Certification will be considered an Energy Auditor Trainee and shall have their audits reviewed and signed-off on by a certified Energy Auditor. Completion of the Basic Energy Auditor Certification requirement advances the energy auditor beyond the trainee status.

**U.S. Department of Energy**  
**WEATHERIZATION ASSISTANCE PROGRAM (WAP)**  
**STATE PLAN/MASTER FILE WORKSHEET**

**(Grant Number: EE0007959, State: WI, Program Year: 2018)**

Three requirements shall be completed to become a certified Basic Energy Auditor:

1. Meet the DOE Weatherization Assistance Program Core Competencies pre-requisite for Basic Energy Audit Competencies, which are:

- Ability to read and write legibly;
- Basic verbal and written communication skills;
- Basic construction knowledge;
- Basic math skills; and
- Basic computer skills.

2. Complete and pass the Basic Energy Auditor Course.

3. Complete and pass a Basic Weatherization Assistant course.

Further details can be found in a document called [Core Competencies for the Weatherization Assistance Program](#) on the Home Energy Plus Website and in the NREL Energy Auditor Job Task Analysis.

#### **Training Management and Tracking System**

The Home Energy Plus Training Management and Tracking System provides training information and training staff recordkeeping as well as supporting training administrative functions. All information related to weatherization training workshops, webinars, conference, as well as special meeting or activities such as PBT and training retention activity participation is tracked in the system. The system interaction with the Home Energy Plus T&TA website includes the events calendar, online registration and posting of event specific materials.

#### **Technical Assistance Activities**

Broadly, technical assistance funds are used to enhance and maintain the quality of the services available to Wisconsin's Weatherization Assistance Program customers. Projects vary widely and examples include research on specific weatherization measures or an on-site consultation for a subgrantee on financial management issues. Generally, a project must in some way work to further the objectives or requirements of the program. Listed below are the in-progress or planned technical assistance projects for this funding period.

#### **Major Home Energy Plus Technical Assistance Projects for PY2018:**

- **Weatherization Customer Guidebook** – Maintenance of the Weatherization Customer Guidebook will continue. This web-based product allows subgrantees to create a customized guide to the weatherization measures completed for each single-family home weatherized. The Guidebook includes maintenance requirements for each measure, as well as general energy management tips. The Guidebook went live on October 1, 2008 and is required for single-family and manufactured homes.
- **Financial Management** – Technical support for WAP subgrantees on financial management issues such as cost allocation, inventory management, direct labor rate monitoring and reconciliation, and follow-up on any issues identified in a subgrantee's fiscal audit. This is a continuation of the support model developed in 2007.
- **Document Design Services** – Document design and support for the Home Energy Plus Programs brochure, and Weatherization Field Guide. Wisconsin completed a major revision of the Weatherization Field Guide in PY 2013 and in PY 2014 to incorporate the relevant SWS requirements as required by WPN 15-4, Section 1.
- **Weatherization Measures Support** – Analysis and maintenance of measures and field protocols. Currently in progress is an annual review of measure savings-to-investment ratios, combustion safety protocols, and new water heater technologies.
- **Self-Evaluation Savings System (SES)** – Wisconsin has built a Self-Evaluation Savings (SES) study that reviews all pre-and post-weatherization energy consumption for natural gas units served by our regulated utilities. Data collection started with FY2007 and provides annual updates of the therm and kWh savings of weatherized homes.
- **Energy Audit Maintenance** – Energy audit maintenance, coordination, and enhancement including managing the set-up libraries, program upgrades, and customizing the audit, as feasible, for Wisconsin use. Wisconsin will continue to work with Oak Ridge National Laboratory (ORNL) to test the new MulTEA tool for small multifamily buildings. Wisconsin will also continue working with ORNL to integrate a web-based version of Weatherization Assistant when it is available.
- **Home Energy Plus Information Call Center** – Provides for the operation and management of a call center. This is a toll free number and serves as an entry port for the general public to the Home Energy Plus programs.
- **Home Energy Professional Quality Control Inspector Planning** – As noted in Section V.5.3, Wisconsin is implementing a Grantee-Developed QCI policy to comply with WPN 15-4 Section 3.

#### **V.9 Energy Crisis and Disaster Plan**

**U.S. Department of Energy**  
**WEATHERIZATION ASSISTANCE PROGRAM (WAP)**  
**STATE PLAN/MASTER FILE WORKSHEET**

**(Grant Number: EE0007959, State: WI, Program Year: 2018)**

**Energy Crisis Plan**

n/a

**Wisconsin Disaster Response Plan**

In accordance with DOE's Weatherization Program Notice 12-07, the declaration of a disaster by the President or Governor is sufficient cause for the State of Wisconsin WAP to implement a series of amended procedures in those affected areas to allow the WAP subgrantee agencies to address the needs of the WAP eligible or previously weatherized low-income families affected by disaster conditions. Wisconsin recognizes that WAP has a very limited role in any disaster response plan. The use of DOE WAP funds is limited to eligible weatherization activities and the purchase and delivery of weatherization materials

**Allowable Re-Weatherization Activities**

For communities or counties in Wisconsin that the President or Governor has declared a disaster area, local WAP agencies will be permitted to use DOE resources (truck, equipment, staff labor, and materials) and funds to re-weatherize affected homes after FEMA funds and insurance payments have been applied to the repair of the structure. The re-weatherization work will be performed in accordance with field procedure guides already established by the Wisconsin WAP and will include the following allowable costs:

- Limited clean-up in those areas of the home where WAP services will be provided. These costs will likely be charged as incidental repairs.
- The performance of an energy audit to determine the services to be provided. The audit will take into consideration all existing WAP materials previously installed and still intact and useful.
- Mechanical systems (central heating, hot water, etc.) and appliances will be inspected, and repaired or replaced as needed based on damage and wear and according to our usual standards
- The auditor may consider deferring the job if the damage to the home appears to impact the structure and the materials to be installed cannot be safeguarded.
- The file must contain documentation of the damage through reports and digital or printed pictures of the affected area.

Each unit will be reported with specific tracking codes in WisWAP. This notation will be part of the data entry so it can be easily identified and sorted for future reference. The costs for these re-weatherized units will be reported to DOE in the same manner as other re-weatherization cases.

**Work In Progress Cases**

In some cases, the local WAP agency may have work in-progress at homes where severe damage has occurred. These units and the associated costs have not been reported to DOE yet there may be significant loss of resources due to the damages. These homes will be identified in the WisWAP system so that proper reporting of costs can be easily tracked.

# Wisconsin Weatherization Health and Safety Plan

## POLICY SUBMITTED WITH PLAN

### 1.0 – GENERAL INFORMATION

*Grantees are encouraged to enter additional information here that does not fit neatly in one of the other sections of this document.*

Wisconsin's Health and Safety policy has been in place since 2005 and has evolved as new information and materials become available. The Division sets overall Health and Safety (H&S) policy for the Weatherization Assistance Program in accordance with DOE's regulations and guidance. Wisconsin acknowledges that within those policy guidelines there are other local, state, and federal authorities that have jurisdiction over specific hazards and how those hazards must be addressed. The requirement to meet all applicable regulations and codes is referenced in the Wisconsin Field Guide and in numerous citations in the state's Weatherization Program Manual. To meet multiple H&S requirements, the Division provides resources and policy guidelines for addressing weatherization related H&S repairs, safety equipment, training and technical support. Elimination of Health and Safety hazards, if using weatherization program funds, shall be done in conjunction with the installation of energy conservation measures. No H&S measures shall be performed in a home unless ECMs are also part of the scope of work. The H&S Plan and allowable H&S measures are applied consistently across the state of Wisconsin.

Customer education is provided by the energy auditor prior to the start of weatherization work with the Health and Safety Checklist (Attachment 11). Required EPA educational materials are provided by the subgrantee prior to weatherization work beginning. The [Wisconsin Weatherization Field Guide](#) contains guidance for crews and contractors when providing customer education while the job is in-progress. After weatherization work is completed each household receives a Customer Guidebook (Attachment 12). This document provides information specific to the measures installed in the home.

Training is provided to address Health and Safety issues as described in Master File Section V.8.4.

### 2.0 – BUDGETING

*Grantees are encouraged to budget Health & Safety (H&S) costs as a separate category and, thereby, exclude such costs from the average cost per unit cost (ACPU) limitation. This separate category also allows these costs to be isolated from energy efficiency costs in program evaluations. Grantees are reminded that, if H&S costs are budgeted and reported under the program operations category rather than the H&S category, the related H&S costs must be included in the calculation of the ACPU and cost-justified through the approved energy audit.*

Select which option is used below.

Separate Health and Safety Budget

Contained in Program Operations

The Division provides its weatherization subgrantees with an allocation of funds, identified as a budget line item, to be used for required H&S activities on buildings being weatherized. H&S costs are budgeted as a separate category. The H&S budget is \$350,000 or 5% of the subgrantee allocation. The ACPU is \$6,284.18 would equal an average of approximately \$345 per dwelling unit for health and safety. Multiple funding sources are used for H&S repair measures, including DOE WAP funds. The Division restricts the use of WAP funds to DOE allowable activities through a reporting mechanism in WisWAP that limits which funds can be allocated to each measure. Furthermore, WisWAP system controls are in place to ensure the Grantee cannot charge to a non-allowed DOE H&S activity. H&S related measures are reported separately in the WisWAP reporting system. The purchase and maintenance of personal protective equipment and other safety equipment is allowed. Each grantee has a local Training and Technical Assistance budget and those funds may be used to provide training and certifications as needed to address H&S issues.

### 3.0 – HEALTH AND SAFETY EXPENDITURE LIMITS

Wisconsin defines Health and Safety measures as the cost of materials and labor needed to eliminate or reduce hazards existing before, or potentially resulting from the installation of weatherization materials. To control costs and ensure that these measures are considered in the context of the weatherization work being done, whenever the estimated costs for H&S measures exceed \$1,000, they must be included in the building's Savings to Investment Ratio (SIR), and the building SIR must be 1.0 or greater (see [Weatherization Assistant Guide](#) Section 4.5 Itemized Costs). Three items are exempt from the \$1,000 calculation: ventilation costs for indoor air quality, gas line testing, and worst-case draft testing. Buildings that cannot be weatherized without the H&S measures must be deferred. The cost of incidental repairs, if such repairs are necessary to make the installation of weatherization materials effective, are allowed costs when NEAT/MHEA auditing requirements have been followed as required.

Wisconsin's guidance to subgrantees is to model all H&S measures as an energy conservation measure (ECM) first, prior to designating it as an H&S measure. When the measure can be cost-justified, the measure shall be treated as an ECM. While the cost of H&S measures may be modeled with a specific ECM, they are charged to a separate budget cost category in our WisWAP reporting system. This is an important quality assurance tool which allows the Division to track and manage all H&S costs.

All Wisconsin WAP subgrantees are required to carry workers compensation and contractor liability insurance. Subcontractors are required to provide proof of insurance to the subgrantees prior to working on any dwellings. Pollution Occurrence Insurance is strongly recommended to subgrantees.

### 4.0 – INCIDENTAL REPAIR MEASURES

*If Grantees choose to identify any H&S measures as incidental repair measures (IRMs), they must be implemented as such under the Grantee's weatherization program in all cases – meaning, they can never be applied to the H&S budget category. In order to be considered IRMs, the measure must fit the following definition and be cost justified along with the associated efficiency measure;*

*Incidental Repairs means those repairs necessary for the effective performance or preservation of weatherization materials. Such repairs include, but are not limited to, framing or repairing windows and doors which could not otherwise be caulked or weather-stripped and providing protective materials, such as paint, used to seal materials installed under this program. ([10 CFR 440 "Definitions"](#))*

Repairs are only allowable when necessary for the effective performance or preservation of energy conservation measure materials. The cost of incidental repairs, if such repairs are necessary to make the installation of weatherization materials effective, are allowed costs when NEAT/MHEA auditing requirements have been followed. All repair measures shall be modeled in the Weatherization Assistant Itemized Cost tab and included in the SIR (see [Weatherization Assistant Guide](#) Section 4.5 Itemized Costs). The repair costs are reported under the appropriate Repair category in WisWAP, the online invoicing system used by subgrantees (Weatherization Program Manual Appendix B WisWAP Reporting Guide). Wisconsin has a separate reporting category for Repairs which allows continuous monitoring and evaluation of costs. If the repairs reduce the cumulative SIR to below 1.0, and the building cannot be weatherized without the repairs, the building shall be deferred.

### 5.0 – DEFERRAL/REFERRAL POLICY

*Deferral of services may be necessary if H&S issues cannot be adequately addressed according to WPN 17-06 guidance. The decision to defer work in a dwelling is difficult but necessary in some cases. This does not mean that assistance will never be available, but that work must be postponed until the problems can be resolved and/or alternative sources of help are found. If, in the judgment of the auditor, any conditions exist which may endanger the health and/or safety of the workers or occupants, the unit should be deferred until the conditions*

are corrected. Deferral may also be necessary where occupants are uncooperative, abusive, or threatening. Grantees must be specific in their approach and provide the process for clients to be notified in writing of the deferral and what conditions must be met for weatherization to continue. Grantees must also provide a process for the client to appeal the deferral decision to a higher level in the organization.

Grantee has developed a comprehensive written deferral/referral policy that covers both H&S, and other deferral reasons?

Yes  No

Where can this deferral/referral policy be accessed?

Wisconsin Weatherization Assistance Program Manual Section 3.6, available on the [Home Energy Plus website](#) and in PAGE Attachment 10.

Wisconsin has a well-established set of deferral standards. Wisconsin has a standardized Deferral of Service Notification form (Attachment 13) which is used to document and notify applicants of conditions that require service to be deferred. The applicant receives a written Deferral Notification within five working days of the decision to defer service. The form includes the customer name and address and the date of inspection. Also included with the notice are a specific description of what issues need to be addressed for work to proceed, and the subgrantee's applicant appeal procedures. The form is delivered in person or sent by mail. When service is deferred, the owner or occupant shall be given a reasonable timeframe to correct the problem. Wisconsin policy requires the subgrantee document the deferral reason in WisWAP.

## 6.0 – HAZARD IDENTIFICATION AND NOTIFICATION FORM(S)

*Documentation forms must be developed that include at a minimum: the client's name and address, dates of the audit/assessment and when the client was informed of a potential H&S issue, a clear description of the problem, a statement indicating if, or when weatherization could continue, and the client(s) signature(s) indicating that they understand and have been informed of their rights and options.*

Documentation Form(s) have been developed and comply with guidance?

Yes  No

Subgrantees are required to identify Health and Safety hazards during the energy audit/assessment, notify the property owner and occupants of these hazards and, depending on the type and extent of the problem, eliminate the identified hazards when they are present prior to or during weatherization activities. The Health and Safety Checklist (Attachment 11) is required for every DOE unit, and includes the Building Identification number, unit number and date of inspection. It is signed by the unit occupant, an agency representative (typically the energy auditor) and maintained in the customer file. This document includes hazards identified in the home and indicates whether they may be addressed through the weatherization program. As stated previously, if the H&S hazards cannot be eliminated, service to the building must be deferred.

All customers receive the EPA informational pamphlets "A Brief Guide to Mold, Moisture and Your Home," "The Lead-Safe Certified Guide to Renovate Right," and "A Citizen's Guide to Radon." A customer signature is obtained on the Health and Safety Checklist to verify receipt of these items. When appropriate, additional educational materials such as the EPA booklet, "Indoor Air Hazards" may be provided to customers.

## 7.0 – HEALTH AND SAFETY CATEGORIES

For each of the following H&S categories identified by DOE:

- Explain whether you concur with existing guidance from WPN 17-06 and how that guidance will be implemented in your Program, if you are proposing an alternative action/allowability, or if the identified category will not be addressed and will always result in deferral. Alternatives must be comprehensively explained and meet the intent of DOE guidance.
- Where an Action/Allowability or Testing is “required” or “not allowed” through WPN 17-06, Grantees must concur, or choose to defer all units where the specific category is encountered.
- “Allowable” items under WPN 17-06 leave room for Grantees to determine if the category, or testing, will be addressed and in what circumstances.
- Declare whether DOE funds or alternate funding source(s) will be used to address the particular category.
- Describe the explicit methods to remedy the specific category.
- Describe what testing protocols (if any) will be used.
- Define minimum thresholds that determine minor and major repairs
- Identify minimum documentation requirements for at-risk occupants
- Discuss what explicit steps will be taken to educate the client, if any, on the specific category if this is not explained elsewhere in the Plan. Some categories, like mold and moisture, require client education.
- Discuss how training and certification requirements will be provided for the specific category. Some categories, like Lead Based Paint, require training.
- Describe how occupant health and safety concerns and conditions will be solicited and documented

Grantees may include additional H&S categories for their particular Programs. Additional categories must include, at a minimum, all of the same data fields as the DOE-provided categories. Two additional tables have been created to utilize.

### 7.1 – Air Conditioning and Heating Systems

#### Concurrence, Alternative, or Deferral

Concurrence with Guidance for Heating Systems

Air Conditioning Unallowable Measure  Heating Unallowable Measure

#### Funding

DOE

LIHEAP

Utility

Other

#### How do you address unsafe or non-functioning primary heating/cooling systems?

Heating system replacement and repair for health and safety is allowed and must be modeled with the Weatherization Assistant energy audit. Subgrantees are required to use a heating system sizing calculator which takes into account climatic conditions. These include REScheck, ACCA Manual J, or an equivalent industry accepted sizing formula.

Subgrantees may also refer inoperable or unsafe heating systems to the [Home Energy Plus Furnace Program](#). This program uses leveraged utility funds to assist eligible households with no heat situations.

#### How do you address unsafe or non-functioning secondary heating systems, including unvented secondary space heaters?



<p><b>Solid Fuel Heating (Wood Stoves, etc.)</b> Replacement of wood-fueled primary heating systems is considered a Health and Safety measure. Secondary heating systems may be replaced if the system is a safety hazard and cannot be eliminated with the replacement of a primary system. The replacement of the secondary heating system is modeled as a Health and Safety measure with the NEAT audit.</p> <p><b>Space Heaters, Stand Alone Electric</b> Repair, replacement, or installation of stand-alone electric space heaters is not allowed as health and safety or energy conservation measure.</p> <p><b>Space Heaters, Unvented Combustion</b> Weatherizing a home with an un-vented space heater is not allowed. Un-vented space heater(s) that may have a harmful effect on the air quality of the home is identified as a reason for deferral of service.</p> <p><b>Space Heaters, Vented Combustion</b> Vented combustion space heaters are inspected and tested for safety and efficiency. Unsafe space heaters may be replaced as an energy conservation measure or a health and safety measure if cost effective based on modeling it with the electronic energy audit.</p>
<b>Indicate Documentation Required for At-Risk Occupants</b>
n/a
<b>Testing Protocols</b>
Standardized Heating System Checklists are required to be followed for repairs and replacements.

<b>7.2 - Asbestos - All</b>
<b>What is the blower door testing policy when suspected Asbestos Containing Material (ACM) is identified?</b>
<p>From Weatherization Program Manual Section 9.6.4.3: A blower door should be utilized to diagnose, measure and identify air leakage for effective weatherization of all buildings (see also Section 8.2.1). Agencies shall contact the Help Desk when an exception to utilizing a blower door to obtain the As-Is CFM50 may be justified to request approval prior to proceeding with weatherization. Perform blower door tests based on the type of ACM present in the building, as follows.</p> <ul style="list-style-type: none"> <li>• When no confirmed ACM is present within the pressure boundary (as confirmed by testing) or only non-friable PACM is present within the pressure boundary, the building may be depressurized or pressurized utilizing a blower door.</li> <li>• When vermiculite that may contain asbestos is present in an attic and/or walls or friable PACM is present within the pressure boundary but not at risk of becoming airborne, the building may be pressurized only utilizing a blower door.</li> <li>• When friable PACM is present inside the pressure boundary and at risk of becoming airborne, eliminate or minimize the hazard prior to utilizing a blower door. The identified hazard should be addressed prior to starting weatherization by crews to effectively complete air sealing work utilizing a blower door. A final test is required to calculate natural ventilation to reduce the minimum required flow rate of installed mechanical ventilation.</li> </ul>
<b>7.2a – Asbestos - in siding, walls, ceilings, etc.</b>
<b>Concurrence, Alternative, or Deferral</b>
Concurrence with Guidance <input checked="" type="checkbox"/> Alternative Guidance <input type="checkbox"/> Results in Deferral <input type="checkbox"/>



<b>Funding</b>				
DOE <input checked="" type="checkbox"/>	LIHEAP <input checked="" type="checkbox"/>	State <input type="checkbox"/>	Utility <input checked="" type="checkbox"/>	Other <input type="checkbox"/>
<b>How do you address suspected ACM's in siding, walls, or ceilings that will be disturbed through the course of weatherization work?</b>				
<p>Subgrantee audit staff has the responsibility to identify potential asbestos containing products and will notify the program participant of the existence of any suspect or presumed asbestos containing material (PACM) that may represent a hazard or will be disturbed during weatherization. The complete asbestos policy can be found in the Wisconsin Weatherization Program Manual Chapter 9.</p> <p>Any disturbance of more ACM than is allowed with O&amp;M training must be completed by certified Asbestos Workers and Supervisors. If weatherization program funds are used for this work the total cost must be modeled with a DOE approved computerized energy audit and carry a SIR of 1.0 or more for the measure and the job. If completion of the asbestos work and the measure do not generate an SIR of 1.0 or greater, the energy auditor will refer the participant to other rehabilitation programs for alternative assistance. If a major weatherization measure cannot be completed due to ACM, the unit may require deferral. The required Deferral Notification form signed by the customer identifies any required asbestos abatement work that must be completed before the subgrantee will proceed with weatherization, and further requires the customer provide proof that any asbestos abatement work was performed by an asbestos contractor and workers certified by the State of Wisconsin Department of Health Services. The results of any asbestos testing that leads to a deferral will be communicated to the customer in the deferral notification letter. The customer may request a paper copy of the test results from the subgrantee.</p>				
<b>Testing Protocols</b>				
<p>All building components, except for metal, glass, wood, and fiberglass, shall either be assumed to contain asbestos or proven not to contain asbestos through bulk sampling by a certified Asbestos Inspector and analysis performed by an accredited laboratory. Testing for asbestos is an allowable cost. Analysis of bulk samples shall be performed by a National Voluntary Laboratory Accreditation Program (NVLAP) listed laboratory, using EPA approved test methods.</p> <p>If testing results determine that the material contains asbestos, as defined by DHS 159 agencies may consider proceeding with the asbestos work following the modeling guidelines outlined in Chapter 8 and the Weatherization Assistance Guide. The agency shall retain the results of testing in the customer file regardless of the outcome (see 2.2.3 Customer Files). If a positive asbestos test results in a deferral of weatherization work, then the test result shall be communicated in writing in the Deferral Notification provided to the building owner. The agency shall provide any test results requested by the customer.</p>				
<b>Training and Certification Requirements</b>				
<p>The State of Wisconsin requires subgrantees to have all field staff trained in Asbestos Operations and Maintenance (O&amp;M) at a minimum. This allows an installer to work safely around asbestos while the weatherization work is being completed with limited disturbance. Subgrantees are allowed to complete higher levels of asbestos training to ensure compliance with EPA, OSHA, DOE, HUD, and Wisconsin Department of Health Services regulations. The higher-level training will reduce the potential for deferral of some of Wisconsin's highest energy usage households. Each subgrantee is required to have at least one certified Asbestos Supervisor/Inspector. This individual is responsible for ensuring workers receive O&amp;M training, use proper procedures and equipment, and who can determine when a job exceeds O&amp;M levels.</p>				

<b>7.2b – Asbestos - in vermiculite</b>
<b>Concurrence, Alternative, or Deferral</b>

Concurrence with Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral <input type="checkbox"/>		
<b>Funding</b>				
DOE <input checked="" type="checkbox"/>	LIHEAP <input checked="" type="checkbox"/>	State <input type="checkbox"/>	Utility <input checked="" type="checkbox"/>	Other <input type="checkbox"/>
<b>How do you address suspected ACM's in vermiculite that will be disturbed through the course of weatherization work?</b>				
The determination of whether work will exceed O&M limits shall be made on a case-by-case basis. Removal of vermiculite insulation is not allowed.				
<b>Testing Protocols</b>				
Vermiculite insulation is always assumed to contain asbestos.				
<b>Training and Certification Requirements</b>				
The State of Wisconsin requires subgrantees to have all field staff trained in Asbestos Operations and Maintenance (O&M) at a minimum. This allows an installer to work safely around asbestos while the weatherization work is being completed with limited disturbance. Subgrantees are allowed to complete higher levels of asbestos training to ensure compliance with EPA, OSHA, DOE, HUD, and Wisconsin Department of Health Services regulations. The higher-level training will reduce the potential for deferral of some of Wisconsin's highest energy usage households. Each subgrantee is required to have at least one certified Asbestos Supervisor/Inspector. This individual is responsible for ensuring workers receive O&M training, use proper procedures and equipment, and who can determine when a job exceeds O&M levels.				

<b>7.2c – Asbestos - on pipes, furnaces, other small covered surfaces</b>				
<b>Concurrence, Alternative, or Deferral</b>				
Concurrence with Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral <input type="checkbox"/>		
<b>Funding</b>				
DOE <input checked="" type="checkbox"/>	LIHEAP <input checked="" type="checkbox"/>	State <input type="checkbox"/>	Utility <input checked="" type="checkbox"/>	Other <input type="checkbox"/>
<b>How do you address suspected ACM's (e.g., pipes, furnaces, other small surfaces) that will be disturbed through the course of weatherization work?</b>				
Subgrantee audit staff has the responsibility to identify potential asbestos containing products and will notify the program participant of the existence of any suspect or presumed asbestos containing material (PACM) that may represent a hazard or will be disturbed during weatherization. The complete asbestos policy can be found in the Wisconsin Weatherization Program Manual Chapter 9.				
Any disturbance of more ACM than is allowed with O&M training must be completed by certified Asbestos Workers and Supervisors. If weatherization program funds are used for this work the total cost must be modeled with a DOE approved computerized energy audit and carry a SIR of 1.0 or more for the measure and the job. If completion of the asbestos work and the measure do not generate an SIR of 1.0 or greater, the energy auditor will refer the participant to other rehabilitation programs for alternative assistance. If a major weatherization measure cannot be completed due to ACM, the unit may require deferral. The required Deferral Notification form signed by the customer identifies any required asbestos abatement work that must be completed before the subgrantee will proceed with weatherization, and further requires the customer provide proof that any asbestos abatement work was performed by an asbestos contractor and workers certified by the State of Wisconsin Department of Health Services. The results of any asbestos testing that leads to a deferral will be communicated to the customer in the deferral notification letter. The customer may request a paper copy of the test results from the subgrantee.				
<b>Testing Protocols</b>				

All building components, except for metal, glass, wood, and fiberglass, shall either be assumed to contain asbestos or proven not to contain asbestos through bulk sampling by a certified Asbestos Inspector and analysis performed by an accredited laboratory. Testing for asbestos is an allowable cost. Analysis of bulk samples shall be performed by a National Voluntary Laboratory Accreditation Program (NVLAP) listed laboratory, using EPA approved test methods.

If testing results determine that the material contains asbestos, as defined by DHS 159 agencies may consider proceeding with the asbestos work following the modeling guidelines outlined in Chapter 8 and the Weatherization Assistance Guide. The agency shall retain the results of testing in the customer file regardless of the outcome (see 2.2.3 Customer Files). If a positive asbestos test results in a deferral of weatherization work, then the test result shall be communicated in writing in the Deferral Notification provided to the building owner. The agency shall provide any test results requested by the customer.

**Training and Certification Requirements**

The State of Wisconsin requires subgrantees to have all field staff trained in Asbestos Operations and Maintenance (O&M) at a minimum. This allows an installer to work safely around asbestos while the weatherization work is being completed with limited disturbance. Subgrantees are allowed to complete higher levels of asbestos training to ensure compliance with EPA, OSHA, DOE, HUD, and Wisconsin Department of Health Services regulations. The higher-level training will reduce the potential for deferral of some of Wisconsin’s highest energy usage households. Each subgrantee is required to have at least one certified Asbestos Supervisor/Inspector. This individual is responsible for ensuring workers receive O&M training, use proper procedures and equipment, and who can determine when a job exceeds O&M levels.

**7.5 – Biologicals and Unsanitary Conditions**  
(odors, mustiness, bacteria, viruses, raw sewage, rotting wood, etc.)

**Concurrence, Alternative, or Deferral**

Concurrence with Guidance       Alternative Guidance       Results in Deferral   
 Unallowable Measure

**Funding**

DOE       LIHEAP       State       Utility       Other

**What guidance do you provide Subgrantees for dealing with biological and/or unsanitary conditions in homes slated for weatherization?**

Subgrantee audit staff has the responsibility as part of the energy audit/assessment process to identify biological hazards such as mold, odors, raw sewage, or rotting wood. Energy auditors must take any conditions identified into consideration in the selection of measures appropriate for that building. In instances where the hazard is of such a severity as to cause undue safety or health concerns to crews, subcontractor staff, or occupants, the auditor is authorized to defer weatherization until the hazard has been addressed. Any remediation is modeled as an itemized cost in Weatherization Assistant and subject to the health and safety expenditure limits.

**Testing Protocols**

Visual inspection during energy audit

**7.6 – Building Structure and Roofing**

**Concurrence, Alternative, or Deferral**

Concurrence with Guidance       Alternative Guidance       Results in Deferral

**Funding**

DOE <input checked="" type="checkbox"/>	LIHEAP <input checked="" type="checkbox"/>	State <input type="checkbox"/>	Utility <input checked="" type="checkbox"/>	Other <input type="checkbox"/>
<b>What guidance do you provide Subgrantees for dealing with structural issues (e.g., roofing, wall, foundation) in homes slated for weatherization?</b>				
The State of Wisconsin encourages subgrantees to work with all available building repair and rehabilitation programs. The Division of Energy, Housing and Community Resources administers the Community Development Block Grant and HOME HHR programs, and some subgrantees have funding for these services in-house. Wisconsin does allow for incidental repairs necessary for the effective performance or preservation of weatherization materials as discussed previously.				
<b>How do you define “minor” or allowable structure and roofing repairs, and at what point are repairs considered beyond the scope of weatherization?</b>				
Repairs are only allowable when necessary for the effective performance or preservation of energy conservation measure materials. The cost of incidental repairs, if such repairs are necessary to make the installation of weatherization materials effective, are allowed costs when NEAT/MHEA auditing requirements have been followed. All repair measures shall be modeled in the Weatherization Assistant Itemized Cost tab and included in the SIR (see Weatherization Assistant Guide Section 4.5 Itemized Costs). If the repairs reduce the cumulative SIR to below 1.0, and the building cannot be weatherized without the repairs, the building shall be deferred.				
<b>If priority lists are used, and these repairs are designated as Incidental Repairs, at what point is a site-specific audit required?</b>				
n/a				

<b>7.7 – Code Compliance</b>				
<b>Concurrence, Alternative, or Deferral</b>				
Concurrence with Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral <input checked="" type="checkbox"/>		
<b>Funding</b>				
DOE <input checked="" type="checkbox"/>	LIHEAP <input checked="" type="checkbox"/>	State <input type="checkbox"/>	Utility <input checked="" type="checkbox"/>	Other <input type="checkbox"/>
<b>What guidance do you provide Subgrantees for dealing with code compliance issues in homes receiving weatherization measures?</b>				
It is the policy of the Wisconsin Weatherization program to minimize Health and Safety and Repair Costs and to use alternative (non-weatherization program) funding to address code compliance issues whenever feasible. Repairs and health and safety measures that are excessive in cost are cause for deferral. Occasionally a preexisting code compliance issue is triggered by an energy conservation measure and paid for with weatherization program funds. Wisconsin delegates the responsibility of local and state code compliance to its subgrantees. Subgrantees have the responsibility to obtain any permits necessary to perform required weatherization work. Fees for these permits are an allowable expense to the weatherization program. To ensure compliance with appropriate codes, onsite monitoring of the weatherization work performed may be conducted. State or national code requirements are referenced in Wisconsin’s Weatherization Program Manual and Field Guide, where applicable.				
<b>What specific situations commonly trigger code compliance work requirements for your network? How are they addressed?</b>				
A list of common State of Wisconsin Codes triggered by weatherization ECMs and paid for with weatherization funds is provided in Weatherization Program Manual 8.10 (Attachment 10).				

## 7.8 – Combustion Gases

Concurrence, Alternative, or Deferral				
Concurrence with Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral <input type="checkbox"/>		
Funding				
DOE <input checked="" type="checkbox"/>	LIHEAP <input checked="" type="checkbox"/>	State <input type="checkbox"/>	Utility <input checked="" type="checkbox"/>	Other <input type="checkbox"/>
Testing Protocols				
<p>Required Combustion Safety Testing:</p> <ol style="list-style-type: none"> <li>1) Detection of fuel leaks, primarily for gas but also oil</li> <li>2) Spillage testing under worst case depressurization at required time limit</li> <li>3) Draft testing under worst case depressurization for natural draft and fan assisted appliances.</li> <li>4) CO testing of combustion appliances including kitchen stoves</li> <li>5) Continual monitoring of ambient CO</li> </ol> <p>Ambient carbon monoxide is monitored during combustion testing. The State requires a "test in/test out" standard of safety testing on naturally drafting combustion appliances, as well as the dwelling. All combustion appliances must be inspected prior to weatherization work commencing, and upon completion. Identification of the presence of combustion gases (such as carbon monoxide) is part of the energy auditor's responsibility in the audit/assessment stage of weatherization, the weatherization installers during weatherization work, and the HVAC installer when work is completed on the appliance.</p> <p>In addition, Wisconsin requires a "worst case draft" test is performed to ensure that flue gases are not back-drafting into the building (<a href="#">Weatherization Field Guide</a> 5.6). This is accomplished by putting the building into a negative pressure, worst case draft condition and determining if any flue gases are venting into the building. Measurements are made and recorded for later use if necessary. If back-drafting occurs, remediation is required, and further tests conducted until the situation is corrected. State of Wisconsin Quality Assurance staff spot check weatherized buildings to ensure that these procedures have been followed. In instances where non-weatherization related combustion appliances are deemed a hazard, the customer is notified of the issue, informed of what steps may be taken to remedy it, and referred to additional funding sources if needed.</p>				
How are crews instructed to handle problems discovered during testing, and what are the specific protocols for addressing hazards that require an immediate response?				
<p>When a job is in-progress and a water heater or heating system needs replacement after work has begun, the crew must notify the energy auditor. The audit shall be updated with the equipment replacement(s) modeled, and re-run. If the job SIR is less than 1.0, work may proceed with the use of leveraged funds (no DOE) for the replacement measures.</p> <p>If the presence of gas is an imminent threat to the safety of workers and occupants, the building will be evacuated and the utility or gas company must be notified immediately.</p>				
Training				

Energy auditors and inspection staff, as well as crew leaders, have been trained in the use of gas detectors and the techniques for identifying the presence of combustible gases, as well as combustion gases. Training is offered in the Wisconsin Uniform Dwelling codes, National Fuel Gas code, and applicable National Fire Protection Association model codes. The Wisconsin WAP references the National Fuel Gas Code and the National Fire Protection Association's standards in its training curriculum and standards for installation of combustion appliances. These codes establish minimum clearances from combustible materials for the different components of these appliances.

7.9 – Electrical				
Concurrence, Alternative, or Deferral				
Concurrence with Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral <input checked="" type="checkbox"/>		
Funding				
DOE <input checked="" type="checkbox"/>	LIHEAP <input checked="" type="checkbox"/>	State <input type="checkbox"/>	Utility <input checked="" type="checkbox"/>	Other <input type="checkbox"/>
<b>What guidance do you provide Subgrantees for dealing with electrical hazards, including knob &amp; tube wiring, in homes slated for weatherization?</b>				
<p>All replacement heating systems must be on a dedicated circuit. That cost must be factored into the cost of the heating system or the job SIR. When serious deficiencies are present in the existing electrical system, such as an overloaded circuit, subgrantees are required to inform the occupants and owner of the unsafe condition and offer information on other available rehabilitation program resources. No additional load may be added to an already overloaded service. Weatherization services must be deferred if such a condition exists until the condition is remedied.</p> <p>The Wisconsin WAP, in compliance with the state’s electrical code, prohibits the insulation of sidewall cavities with live knob and tube wiring present. In attics and other accessible areas, tenting is required with a minimum of 3 inches of free air clearance around the wiring. All knob and tube wiring is tested to determine if it is still being used to distribute power. In some instances, where an energy audit cost benefit analysis indicates a 1.0 or greater savings to investment ratio (SIR), rewiring of the wall cavities or attics is included as part of the sidewall or attic insulation measure. This work is performed as required by state and local code. When necessary, subgrantees may defer weatherization work until a rehabilitation program replaces the knob and tube wiring. Subgrantees are encouraged to "piggy-back" with rehabilitation programs for aid in removing knob and tube wiring.</p>				
<b>How do you define “minor” or allowable electrical repairs, and at what point are repairs considered beyond the scope of weatherization?</b>				
<p>Repairs are only allowable when necessary for the effective performance or preservation of energy conservation measure materials. The cost of incidental repairs, if such repairs are necessary to make the installation of weatherization materials effective, are allowed costs when NEAT/MHEA auditing requirements have been followed. All repair measures shall be modeled in the Weatherization Assistant Itemized Cost tab and included in the SIR (see Weatherization Assistant Guide Section 4.5 Itemized Costs). If the repairs reduce the cumulative SIR to below 1.0, and the building cannot be weatherized without the repairs, the building shall be deferred.</p>				
<b>If priority lists are used, and these repairs are designated as Incidental Repairs, at what point is a site-specific audit required?</b>				
n/a				

## 7.10 – Formaldehyde, Volatile Organic Compounds (VOCs), Flammable Liquids, and other Air Pollutants

Concurrence, Alternative, or Deferral				
Concurrence with Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral <input checked="" type="checkbox"/>		
Funding				
DOE <input checked="" type="checkbox"/>	LIHEAP <input checked="" type="checkbox"/>	State <input type="checkbox"/>	Utility <input checked="" type="checkbox"/>	Other <input type="checkbox"/>
<b>What guidance do you provide Subgrantees for dealing with formaldehyde, VOCs, flammable liquids, and other air pollutants identified in homes slated for weatherization?</b>				
<p>Subgrantee energy auditors have responsibility for identifying situations where new carpeting and other products are out-gassing potentially harmful by-products and making appropriate adjustments in the air sealing measures. Currently, Wisconsin Air Sealing Protocols includes adjustments for harmful indoor air quality situations such as smokers being present or the presence of formaldehyde or VOC's. Identifying the presence of formaldehyde or VOC's is included as part of Wisconsin's training of energy auditors. In addition, ventilation is used to address low-level indoor air pollutants.</p>				
Testing Protocols				
Inspection during energy audit				

## 7.11 – Fuel Leaks

*(please indicate specific fuel type if policy differs by type)*

Concurrence, Alternative, or Deferral				
Concurrence with Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral <input type="checkbox"/>		
Funding				
DOE <input checked="" type="checkbox"/>	LIHEAP <input checked="" type="checkbox"/>	State <input type="checkbox"/>	Utility <input checked="" type="checkbox"/>	Other <input type="checkbox"/>
<b>Remediation Protocols</b>				
<p>Fuel leak detection is a required diagnostic testing procedure in all weatherized homes (Program Manual Section 8.2). Wisconsin communicates this requirement to subcontractors in standardized procurement specifications (HVAC Attachment 4 Section B). The specifications require testing gas lines for fuel leaks in natural gas and propane piping systems with an electronic combustible-gas detector and further requires: sniffing all valves and joints; verifying any detected leaks with non-corrosive bubbling liquid designed for finding gas leaks; repairing all gas leaks verified with bubbling liquid; replacing kinked or corroded flexible gas connectors; and, replacing spring style gas valves with ball style gas valves if leak detected and verified. Any identified gas leaks will be noted on the Health and Safety Checklist that is signed by the building occupant.</p>				
<b>How do you define allowable fuel leak repairs, and at what point are repairs considered beyond the scope of weatherization?</b>				
<p>Gas line (fuel leak) repair is an allowable Health and Safety measure, and the measure cost is excluded from the SIR calculation and the \$1,000 H&amp;S limit. Natural gas leaks on the utility side of the meter should be addressed by the utility or the building owner. Limited repair is allowed when the LP tank and distribution are owned by the low-income customer.</p>				

## 7.12 – Gas Ovens / Stovetops / Ranges

Concurrence, Alternative, or Deferral		
Concurrence with Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral <input checked="" type="checkbox"/>



<b>Funding</b>				
DOE <input checked="" type="checkbox"/>	LIHEAP <input checked="" type="checkbox"/>	State <input type="checkbox"/>	Utility <input checked="" type="checkbox"/>	Other <input type="checkbox"/>
Testing only, repair/replacement is not an allowable cost.				
<b>What guidance do you provide Subgrantees for addressing unsafe gas ovens/stoves/ranges in homes slated for weatherization?</b>				
Weatherization funds shall not be used to repair or replace cooking stoves, ovens or ranges with carbon monoxide emissions. If a gas leak is detected, repair of gas leaks is an allowable measure. If the unit is not repairable or the cost of the repair is excessive, the unit shall be deferred until the issue is resolved.				
<b>Testing Protocols</b>				
Wisconsin requires inspecting cooking burners and ovens for operability and flame quality. Gas ovens are tested for air free Carbon Monoxide levels. Testing procedures are detailed in Field Guide Section 5.4.2. Action levels for range ovens are: <800 PPM recommend customer cleans oven to prevent possible CO problems; >800 and <1000 PPM advise customer to have appliance serviced; and >1000 PPM advise customer the oven should not be used and be replaced.				

<b>7.13 – Hazardous Materials Disposal</b> [Lead, Refrigerant, Asbestos, Mercury (including CFLs/fluorescents), etc.] <i>(please indicate material where policy differs by material)</i>		
<b>Concurrence, Alternative, or Deferral</b>		
Concurrence with Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral <input type="checkbox"/>
<b>Funding</b>		
DOE <input checked="" type="checkbox"/>	LIHEAP <input checked="" type="checkbox"/>	State <input type="checkbox"/> Utility <input checked="" type="checkbox"/> Other <input type="checkbox"/>
<b>Disposal Procedures and Documentation Requirements</b>		
This requirement is addressed in the Weatherization Program Manual and in procurement templates and specifications. Specific costs may be addressed as part of the measures costs or may be included as a health and safety cost. Examples include, 1) Proper disposal and recycling of replaced refrigerators is included in the replacement bid specifications, and 2) Proper disposal of ACM is included with the asbestos health and safety costs.		
The Customer Guidebook provides information on safely disposing CFLs.		
Wisconsin requires subgrantees to comply with state and federal requirements for the safe and legal disposal hazardous materials. Refrigeration appliances that are replaced must be disposed of according to the environmental standards in the Clean Air Act (1990), Section 608, as amended by Final Rule, 40 CFR 82, May 14, 1993. The local agency, appliance vendor, de-manufacturing center, or other entity recovering the refrigerant must possess an EPA-approved section 608 type-I license or an approved universal certification.		

<b>7.14 – Injury Prevention of Occupants and Weatherization Workers</b> (Measures such as repairing stairs and replacing handrails)		
<b>Concurrence, Alternative, or Deferral</b>		
Concurrence with Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral <input checked="" type="checkbox"/>
<b>Funding</b>		



DOE <input checked="" type="checkbox"/>	LIHEAP <input checked="" type="checkbox"/>	State <input type="checkbox"/>	Utility <input checked="" type="checkbox"/>	Other <input type="checkbox"/>
<b>What guidance do you provide Subgrantees regarding allowable injury-related repairs (e.g., stairs, handrails, porch deck board)?</b>				
Problems that would put our field staff at risk usually result in the building being deferred. Hazards that are identified but not addressed are to be noted on the Health & Safety Checklist.				
<b>How do you define “minor” or allowable injury prevention measures, and at what point are repairs considered beyond the scope of weatherization? Quantify “minor” or allowable injury prevention measures.</b>				
The cost of incidental repairs, if such repairs are necessary to make the installation of weatherization materials effective, are allowable costs when electronic auditing requirements have been followed as required.				

<b>7.15 – Lead Based Paint</b>				
<b>Concurrence, Alternative, or Deferral</b>				
Concurrence with Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral <input checked="" type="checkbox"/>		
<b>Funding</b>				
DOE <input checked="" type="checkbox"/>	LIHEAP <input checked="" type="checkbox"/>	State <input type="checkbox"/>	Utility <input checked="" type="checkbox"/>	Other <input type="checkbox"/>
Program funds may be used to minimize the potential hazard associated with disturbing painted surfaces through the course of installing energy conservation measures. Program funds shall not otherwise be used for the abatement, stabilization, or control of lead-based paint hazards that may exist in a unit. Program funds shall not be used for routine clearance testing after work is completed.				
<b>Safe Work Protocols</b>				
In accordance with EPA’s Lead Renovation, Repair and Painting Program Rule, Wisconsin’s lead policy is that unless a building is certified as “lead-free” all weatherization activities conducted on dwelling units constructed prior to 1978 (target housing) or a child occupied facility (built prior to 1978) shall be performed utilizing lead-safe work practices. When deferral is necessary the required Deferral Notification form signed by the customer identifies any required lead remediation work that must be completed before the subgrantee will proceed with weatherization. The results of any lead testing that cause a deferral will be communicated to the customer in the required Deferral Notification Letter, and the customer may request a paper copy of the test results from the subgrantee. Wisconsin requires training and certification as Lead Safe Renovators.				
The State of Wisconsin Department of Health Services (DHS) received approval from EPA to enforce compliance and provide training and certification for lead safe renovation through State of Wisconsin, DHS Chapter 163. This statute meets the EPA requirements, and there are some areas where Wisconsin’s DHS 163 is more restrictive than EPA’s requirements. If there are discrepancies between EPA standards for lead safe procedures and the requirements of DHS 163, the latter will take precedence. Weatherization work follows the most restrictive requirements of the authorities having jurisdiction.				
<b>Testing Protocols</b>				
Wisconsin Department of Health Services (DHS) approved lead test kits may be used when cost-effective. Testing shall be limited to building components that will be disturbed. Note that the approved test kit must be used by a person with Certified Renovator credentials at minimum and requires the building owner’s permission. See the DHS website for detailed test kit information and requirements. Agencies shall maintain a copy of all lead testing in the customer file (see 2.2.3 Customer Files). The Division strongly encourages testing for lead when the test has the potential to reduce the amount of labor required to complete weatherization work.				

<b>Client Education</b>
Documentation that the occupant and/or owner received the EPA pamphlet “The Lead-Safe Certified Guide to Renovate Right” shall be maintained for every building weatherized. When a potential lead hazard is identified by the energy auditor, the weatherization file shall contain a Health and Safety Checklist that documents the hazard, testing performed, and type of lead-safe work required, if applicable (see 9.1.1 Health and Safety Checklist). If testing is performed and a positive test causes the building to be deferred, a written description of the test result shall be included in the Deferral Notification provided to the building owner. The agency shall provide any test results requested by the customer.
<b>Training and Certification Requirements</b>
Weatherization Program agencies shall be certified as a Lead-Safe Company by DHS. The EPA refers to Lead-Safe Companies as “firms.” A Lead-Safe Company has at least one certified Lead-Safe Renovator on staff. For each employed or contracted worker of a Lead-Safe Company who is not a certified lead-safe renovator, the Lead-Safe Company shall maintain documentation of the training provided, including the worker’s name, specific topics taught to the worker, the name and department certification number of the instructor for each topic, and the training date for each topic.
Weatherization program agencies that perform work in buildings on Tribal Lands shall be certified as Lead-Safe Certified Renovation Firms by EPA. Agencies can become certified by applying with EPA online at <a href="http://www2.epa.gov/lead/epa-lead-safe-certification-program">http://www2.epa.gov/lead/epa-lead-safe-certification-program</a> . Individual Lead-Safe Renovator certifications for each employed or contracted worker are valid on Tribal Lands.
<b>Documentation Requirements</b>
Using the Wisconsin Weatherization Assistance Program Health and Safety Checklist, the weatherization agency shall identify the applicability of Lead-Safe Renovator requirements to ensure customer and worker safety. The weatherization agency is responsible for ensuring that contractors are notified in advance of lead-safe requirements (such as in the Request for Bid), are trained in and practice lead-safe work, and that Certified Renovators are present and complete a Renovation Recordkeeping Checklist when required.
When Lead Renovation requirements apply, a Wisconsin Weatherization Assistance Program Renovation Recordkeeping Checklist shall be completed and maintained in the customer file for review. Documentation shall be maintained for a minimum of three years (DHS 163.13(3)(c)).

<b>7.16 – Mold and Moisture</b>				
(Including but not limited to: drainage, gutters, down spouts, extensions, flashing, sump pumps, dehumidifiers, landscape, vapor retarders, moisture barriers, etc.)				
<b>Concurrence, Alternative, or Deferral</b>				
Concurrence with Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral <input checked="" type="checkbox"/>		
<b>Funding</b>				
DOE <input checked="" type="checkbox"/>	LIHEAP <input checked="" type="checkbox"/>	State <input type="checkbox"/>	Utility <input checked="" type="checkbox"/>	Other <input type="checkbox"/>
<b>What guidance do you provide Subgrantees for dealing with moisture related issues (e.g., drainage, gutters, down spouts, moisture barriers, dehumidifiers, vapor barrier on bare earth floors) in homes slated for weatherization?</b>				

Due to the uniqueness of the mold hazard, energy auditors are required to take special care in identifying the presence or conditions that could lead to the presence of mold. The auditor performs a visual inspection of the building and identifies any location with the presence of mold. In those instances where mold is present, energy auditors are required to inspect the property for possible sources of moisture including air or water leaks, poor thermal barriers, and excessive moisture in the building due to improper ventilation. Program funds may be used to minimize or eliminate mold causing conditions in conjunction with the installation of energy conservation measures.

Wisconsin's Weatherization Field Guide, which is focused on installers, deals with moisture control in several sections including Building Shell Measures, Diagnostics Procedures, Mechanical Systems, and an extensive chapter on Health and Safety procedures. The State works with its Technical Development Work Group and training and technical assistance sub-contractor to update the Field Guide as needed.

As a standard of field practice, every building is assessed for building tightness and ventilation requirements using software based on the ASHRAE 62.2 and ANSI Standards. This software models the building for tightness and identifies the amount of ventilation to install, if needed. Subgrantees are also required to have equipment to measure the rate of exhaust ventilation and moisture meters.

**How do you define "minor" or allowable moisture-related measures, and at what point is work considered beyond the scope of weatherization?**

Mold areas identified that comprise in total less than 10 square feet are not required to be addressed as a part of weatherization. In severe cases, weatherization work must be deferred until the mold hazard has been eliminated. Current policy allows for appliance repair, dehumidifier replacement or installation. Water heater replacement as a health and safety measure is allowed and must be modeled with the electronic energy audit.

**Client Education**

The auditor is required to document the presence of moisture and mold by completing the Moisture and Mold Checklist, part of the Health and Safety Checklist referenced above. That checklist must be reviewed and signed by the customer and retained in the client file. Auditors are required to inform the participant of the hazards of mold and provide them a copy of the EPA pamphlet entitled, "A Brief Guide to Mold, Moisture and Your Home."

**Training**

Wisconsin's Basic Energy Auditor Curriculum, an IREC accredited training, includes a unit on moisture control. A second unit of the Basic Energy Auditor curriculum addresses air sealing and diagnostic procedures, with an overview of building tightness testing, depressurization limit testing, worst-case draft testing, carbon monoxide testing and Wisconsin's Deferral of Service policy.

**7.17 – Pests**

**Concurrence, Alternative, or Deferral**

Concurrence with Guidance       Alternative Guidance       Results in Deferral

**Funding**

DOE       LIHEAP       State       Utility       Other

**What guidance do you provide Subgrantees for dealing with pests and pest intrusion prevention in homes slated for weatherization?**

Pest removal is not allowed with weatherization funds.

**Define Pest Infestation Thresholds, Beyond Which Weatherization Is Deferred**

Infestation of pests may be cause for deferral where it cannot be reasonably removed by the customer and/or poses a H&S hazard for workers.
<b>Testing Protocols</b>
Visual inspection during energy audit
<b>Client Education</b>
Observed conditions are communicated to the occupant on the Health and Safety Checklist. When deferral is necessary information is provided to the building owner in writing (Deferral Notification form) describing the conditions that must be met for weatherization to proceed.

<b>7.18 – Radon</b>		
<b>Concurrence, Alternative, or Deferral</b>		
Concurrence with Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral <input type="checkbox"/>
<b>Funding</b>		
DOE <input type="checkbox"/>	LIHEAP <input type="checkbox"/>	State <input type="checkbox"/> Utility <input type="checkbox"/> Other <input type="checkbox"/>
<b>What guidance do you provide Subgrantees around radon?</b>		
Radon testing and mitigation are not allowed. Allowable weatherization measures that may reduce the exposure to radon such as covering of dirt floors per Standard Work Specification guidelines, sealing sump pit covers, and mechanical ventilation, are encouraged. This policy will be reviewed and revised as necessary based on published results of the DOE National Evaluation Air Quality study.		
<b>Testing Protocols</b>		
n/a		
<b>Client Education</b>		
All clients are provided the EPA pamphlet, “A Citizen’s Guide to Radon” and building occupants sign an informed consent statement on the Health and Safety Checklist.		

<b>7.19 – Safety Devices: Smoke and Carbon Monoxide Alarms, Fire Extinguishers</b>		
<b>Concurrence, Alternative, or Deferral</b>		
Concurrence with Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral <input type="checkbox"/>
<b>Funding</b>		
DOE <input checked="" type="checkbox"/>	LIHEAP <input checked="" type="checkbox"/>	State <input type="checkbox"/> Utility <input checked="" type="checkbox"/> Other <input type="checkbox"/>
<b>What is your policy for installation or replacement of the following:</b>		
Smoke Alarms: When not present or when existing smoke detectors are non-functional, install a smoke detector in the basement and on each floor in the thermal envelope. When feasible, locate the alarms in the vicinity of the sleeping area(s).		
Carbon Monoxide Alarms: When not present or when existing carbon monoxide alarms are non-functional, install a carbon monoxide alarm in the vicinity of sleeping area(s). If the sleeping areas cannot be monitored with one detector more than one detector shall be installed.		
Fire Extinguishers: not allowed with program funds		
<b>Testing Protocols</b>		
Auditors, crews and inspectors tests units. Inoperable units are replaced per program policy.		

<b>7.20 – Occupant Health and Safety Concerns and Conditions</b>		
<b>Concurrence, Alternative, or Deferral</b>		

Concurrence with Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral <input type="checkbox"/>		
<b>Funding</b>				
DOE <input checked="" type="checkbox"/>	LIHEAP <input checked="" type="checkbox"/>	State <input type="checkbox"/>	Utility <input checked="" type="checkbox"/>	Other <input type="checkbox"/>
<b>What guidance do you provide Subgrantees for soliciting the occupants' health and safety concerns related to components of their homes? What guidance do you provide Subgrantees for determining whether occupants suffer from health conditions that may be negatively affected by the act of weatherizing their home? What guidance do you provide Subgrantees for dealing with potential health concerns when they are identified?</b>				
<p>The subgrantee energy auditor notifies customers of existing and potential health and safety hazards. If a building occupant discloses any sensitivity to weatherization materials proposed for the unit, the subgrantee informs the building occupants of the possible effects of the materials and the post-weatherization conditions of their building. Whenever possible, it is the responsibility of the subgrantee to devise ways of installing materials to reduce the exposure of the participant or other occupants so that weatherization work may be performed. Possible approaches could include temporary containment areas, HEPA filtered equipment, temporary removal of the individuals that are sensitive to the materials, or alternative installation methods or materials that meet the specifications of the program.</p>				
<b>Client Education</b>				
<p>Customer education is an allowable T&amp;TA expense and the Weatherization Customer Guidebook includes H&amp;S information that is site and customer specific. Customers receive specific information when lead hazards, asbestos, or mold is noted in their homes. That information includes both federally required documents and specific information about their home on the required Health and Safety Checklist. With a signature on the Health and Safety Checklist, the customer agrees to notify the weatherization agency of any occupant health issues that may be affected by weatherization services.</p>				
Documentation Form(s) have been developed and comply with guidance?			Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Health and Safety Checklist				

7.21 – Ventilation and Indoor Air Quality				
Concurrence, Alternative, or Deferral				
Concurrence with Guidance <input type="checkbox"/>	Alternative Guidance <input checked="" type="checkbox"/>	Results in Deferral <input checked="" type="checkbox"/>		
Funding				
DOE <input checked="" type="checkbox"/>	LIHEAP <input checked="" type="checkbox"/>	State <input type="checkbox"/>	Utility <input checked="" type="checkbox"/>	Other <input type="checkbox"/>
<b>Identify the Most Recent Version of ASHRAE 62.2 Implemented (optional: identify Addenda used)</b>				
<p>Wisconsin will use ASHRAE 62.2-2016 for DOE funded units. If a customer refuses ventilation required by ASHRAE 62.2-2016, the Agency shall use discretion when proceeding with weatherization and may defer the building if there is a documented health and safety concern. If weatherization proceeds without the required ventilation, DOE funds shall not be used.</p>				
Testing and Final Verification Protocols				
<p>Wisconsin has developed a Diagnostic Workbook tool to assess the need for continuous ventilation. This tool was included in the audit package submitted to DOE for approval in 2018. See the <a href="#">Weatherization Field Guide 5.9</a> for detailed ventilation specifications.</p>				

## 7.22 – Window and Door Replacement, Window Guards

Concurrence, Alternative, or Deferral		
Concurrence with Guidance <input type="checkbox"/>	Alternative Guidance <input checked="" type="checkbox"/>	Results in Deferral <input type="checkbox"/>
<b>Funding</b>		
DOE <input checked="" type="checkbox"/>	LIHEAP <input checked="" type="checkbox"/>	State <input type="checkbox"/> Utility <input checked="" type="checkbox"/> Other <input type="checkbox"/>
Funding exception: DOE funds will not be used for window guards or window replacements.		
<b>What guidance do you provide to Subgrantees regarding window and door replacement and window guards?</b>		
<p>Primary exterior doors may be replaced only as a repair measure. Photographs shall be taken to document specifically why the door was replaced. Doors may be replaced only if the door is in the primary heating envelope and has any of the following characteristics:</p> <p>a) Rotting occurring on either the door jamb or the door blank;</p> <p>b) Holes or cracks in the door jamb or door blank that cannot be repaired; or</p> <p>c) Door repair is not feasible that will still allow the door to operate correctly.</p>		
<b>Testing Protocols</b>		
Replacement of doors are modeled with the NEAT audit as either an energy conservation measure or a repair. The replacement must have a savings to investment ratio greater than or equal to 1.0 to be a conservation measure. The job must have a savings to investment ratio greater than or equal to 1.0 for a repair.		

7.23 – Worker Safety (OSHA, etc.)		
Concurrence, Alternative, or Deferral		
Concurrence with Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral <input type="checkbox"/>
<b>Funding</b>		
DOE <input checked="" type="checkbox"/>	LIHEAP <input checked="" type="checkbox"/>	State <input type="checkbox"/> Utility <input checked="" type="checkbox"/> Other <input type="checkbox"/>
<b>How do you verify safe work practices? What is your policy for in-progress monitoring?</b>		

To comply with the Hazard Communication Standard (29 CFR 1910.1200), an internet-based Safety Data Sheet system is available for worker access to all current data sheets via Wisconsin's technical assistance contract. Safety Data Sheets are required to be available to workers in printed or digital format, and the information contained in them shall be readily accessible from a work site. Wisconsin has an internet-based SDS system for worker access to all current data sheets.

Crew and contractor safety is the responsibility of the subgrantee. In contracting with the subgrantees, the State of Wisconsin assumes compliance with all applicable federal, state, and local safety and health regulations. The Wisconsin Weatherization Program Manual includes a written policy stating services shall be deferred when the dwelling or household presents a serious crew safety concern. The subgrantee is responsible for enforcing all work rules to ensure a safe working environment for the workers, customers, and subcontractors.

The State of Wisconsin requires subgrantees to purchase and equip their crews and energy auditors with the appropriate personal protective equipment necessary to perform work tasks. Supplies and equipment purchased may include personal CO monitors, respirators, protective coveralls, safety glasses, HEPA vacuums, supplied air respirator systems, and other safety needs. Wisconsin also specifies that respirator training and fit testing are required of crew personnel and other local staff as applicable.

Administrative reviews of subgrantees include verification that OSHA worker safety requirements are being implemented (SDS, Personal Protective Equipment, lead and asbestos compliance, etc.). Onsite monitoring also includes checks that worker safety requirements are followed at in-progress jobs. Failure to comply with all state and federal safety and health regulations may result in the suspension or termination of the weatherization contract.

#### **Training and Certification Requirements**

The subgrantee is responsible for ensuring workers and subcontractors are properly trained and certified when certification is required. The Division allocates a local Training and Technical Assistance budget and provides direct trainings statewide via a subcontractor, the Wisconsin Energy Conservation Corporation (WECC). WECC provides ten and thirty-hour OSHA construction safety training and will continue to offer this course as needed.

OSHA 10 is a required training for all field staff, and OSHA 30 is recommended for production supervisors and crew leads. All subgrantee staff are trained to applicable OSHA standards. WECC developed an internet-based OSHA GHS Training Module that is available to all Local Training Officers.