



Utah Weatherization Program Notice

Published Date 4 March 2021
Proposed Effective Date 30 June 2021
UWPN # 2021-001

Subject: Annual Notice of Program Changes

Basis: Annual Public Hearing

Purpose: As required by 10 CFR 440.14(a) the State will be holding a Public Hearing to receive comment on the State Plan that will be submitted to the Department of Energy for PY2021.

This program notice documents the policy changes that are currently being proposed for PY 2021 and includes the grant application package to be submitted.

Changes do not reflect amendments made during the DOE Grant approval process. Dollar amounts are tentative based on DOE guidance in WPN 21-2.

Scope: The changes noted in this UWPN are proposed to be effective 6-30-2021.

Responsibilities:

Local Agencies –

- Review proposed changes and provide any comments
- Implement applicable changes on effective date.

State WAP Staff –

- Amend Program Guidelines and affected program forms with the necessary changes for submittal of the annual DOE grant application. (Changes 2020-019 to 023 and 2021-001 & 010)

Brad Carpenter
Weatherization Program Manager
State of Utah DWS/HCD

Utah WAP Guideline Change Form

Change Tracking Number	Timestamp	What section do you want changed?	Reason for suggested change?	Proposed text of change.	Current text.	Contact Information	Name of agency or organization	E-mail address	Phone Number	Name of submitter	Status (Pending, Approved, Disapproved, Edited, Published)
2020-019	7/16/2020 15:43:	B9.5.g	B9.5.c.v. instructs auditors to remove recommended measures when IRM's do not pay back, but there is no guidance on how to remove a recommended measure.	B9.5.g.Removing Recommended Measures i.Occasionally a recommended measure will need to be removed from the audit. This will typically be an ECM with an associated IRM that exceeds the cumulative SIR (see B9.5.c.v. Incidental Repair Measure), or an ECM that cannot be installed because there is no opportunity to install it due to height limitations or other site specific circumstances. ii.To remove an ECM, the associated shell inputs shall be accurately entered into the audit and an additional cost shall be added to the measure so that it no longer pays back to install the measure. The reason for the additional cost shall be documented in the comments section of the measure. This will allow for accurate inputs about the building shell so that the heating and cooling loads are calculated properly, and allows the auditor to document the reason there was no opportunity to install the measure. If the measure was an itemized cost, the measure just needs to be deleted. As a best practice the reason an itemized cost was not considered should be noted in A03 Field Collection Forms.	None. Section added	7	State	mjturmer@utah.gov	8018675309	Matt Turner	Edited
2020-020	7/20/2020 9:04:1	B9.8.h	To align guidelines with state's commitment to DOE to use SSE when evaluating furnaces.	B9.8.h.Appliance Specs (HVAC, Water Heater, Refrigerator) i.Wherever possible the manufacturer's specifications for the appliance inputs, outputs, efficiency (except Furnaces, see B9.8.h.iv below), consumption, etc. shall be used in the energy audit. If his data cannot be found on the nameplate of the appliance, in the Preston's Guide, or the manufacturer's website, auditors must document how the Specifications were derived in the comment section for the appliance. ii.The Shipped from Factory ratings should be used whenever possible. iii.The Output ratings should not be derated for altitude on the energy audit as it will have no effect; but a derated output should always be used when sizing equipment. iv.For Furnaces: Wherever possible the measured Steady State Efficiency (SSE) shall be used in the energy audit. If the SSE cannot be measured, the Manufacturer's efficiency rating should be used and the reason shall be documented in the comments section of the Heating tab. If the SSE or the Manufacturer's efficiency ratings cannot be obtained, the following methods can be used. The reason for use and the calculation must be documented in the comments section: The Output capacity can be determined using the following equation: # of burners x 20,000 x efficiency = Output capacity •Example: 3 burners x 20,000= 60,000 x 80% efficiency =48,000 BTUH •Efficiency of any Natural draft furnace should be 60% to 70% •Efficiency of Cat 1 furnace should be 80% to 89% •Efficiency of any furnace with PVC flues should be over 90%	B9.8.h. Appliance Specs (HVAC, Water Heater, Refrigerator) i. Wherever possible the manufacturer's specifications for the appliance inputs, outputs, efficiency, consumption, etc. shall be used in the energy audit. If his data cannot be found on the nameplate of the appliance, in the Preston's Guide, or the manufacturer's website, auditors must document how the Specifications were derived in the comment section for the appliance. ii. The Shipped from Factory ratings should be used whenever possible. iii. The altitude deration rating should not be used. iv. For Furnaces: If the Manufacturer's efficiency rating cannot be determined, the following methods can be used and must be documented in the comments section: The Output capacity can be determined using the following equation: # of burners x 20,000 x efficiency = Output capacity • Example: 3 burners x 20,000 = 60,000 x 80% efficiency =48,000 BTUH • Combustion analysis can be performed to determine Steady State Efficiency. • Note: any Natural draft furnace will be 60% to 70% • Cat 1 furnace will be 80% to 89% • Any furnace with PVC flues will be over 90%	State	mjturmer@utah.gov	8014680155	Matt Turner	Edited	
2020-021	7/20/2020 17:30:	B9.8.k.i.4	To clarify that an Infiltration Reduction Measure with an SIR less than 1 cannot include duct sealing per State Audit review	4. Use the audit tool to determine the total budget for infiltration reduction by adjusting the cost of the measure to get it to an SIR of 1. Per WPN 19-4 air sealing may have an SIR less than 1.0, if the cumulative SIR of the package of measures is equal to or greater than 1.0. (see B9.5.c IRM—Incidental Repair Measure: for explanation and examples of the cumulative sir). Note: when an Infiltration Reduction measure has an SIR less than 1.0 the measure cannot include duct sealing. Duct sealing must be evaluated as a separate measure.	4. Use the audit tool to determine the total budget for infiltration reduction by adjusting the cost of the measure to get it to an SIR of 1. Per WPN 19-4 air sealing may have an SIR less than 1.0, if the cumulative SIR of the package of measures is equal to or greater than 1.0. (see B9.5.c IRM—Incidental Repair Measure: for explanation and examples of the cumulative sir).	State	mjturmer@utah.gov	8014680155	Matt Turner	Edited	
2020-022	7/29/2020 7:17:4	C1.9.a.viii	correct grammatical errors and clarify that missing drywall should be missing from the pressure boundary of the building.	viii. Dwellings that are in a state of remodel or similar situations that have repairs which would exceed the scope of an IRM should be considered ineligible until the resident or owner can remedy the situation to a level that allows effective weatherization. These applicants should be referred to a home rehab or similar program for assistance. Example: Auditor arrives at dwelling and finds 1 or more rooms missing interior finish surfaces on the pressure boundary of the building, like drywall or paneling. Since there is no air barrier to even asses for air sealing the dwelling would be ineligible.	viii. Dwellings that are in state of remodel or similar situations that have repairs which would exceed the scope of an IRM should be considered ineligible until the resident or owner can remedy the situation to a level that allows effective weatherization. These applicants should be referred to a home rehab or similar program for assistance. Example: Auditor arrives at dwelling and finds 1 more rooms missing interior finish surfaces, like drywall or paneling. Since there is no air barrier to even asses for air sealing the dwelling would be ineligible.	State	mjturmer@utah.gov	8014680155	Matt Turner	Edited	

Utah WAP Guideline Change Form

2020-023	11/19/2020 15:25	B9.2.a.vii, C5.5.a.iv, and C5.5.d	To clarify state policy on Serving and Auditing Multi Family housing	<p>B9.2.a.vii.Multi-Family Auditing: Utah does not have an approved multi-family audit tool. Contact the State for guidance prior to accepting any application of a project larger than 4 units. Multi-family buildings with be audited as follows, and will be reviewed by HCD and DOE.</p> <p>1.The NEAT audit shall be used on buildings with 2 to 4 units and the agency can proceed with weatherization without any additional approval.</p> <p>2.On buildings with 5 to 25 units with individual heating systems, units shall be audited using the NEAT audit, and the results of the energy audits shall be submitted to the State and its DOE project officer for approval before any work can be performed on the building.</p> <p>3.On buildings with 5 to 25 units with central heating systems and on all buildings with more than 25 units, the units shall be audited with EA QUIP and shall be submitted to the State and its DOE project officer for approval before any work can be performed on the building.</p> <p>4.Any blower door testing in a multifamily building will be of individual units. Blower door testing of individual units provides only a qualitative indication, not a quantitative measurement, of air leakage. Still, it is a valuable test to perform selectively because it will show the leakage points in the outside envelope as well as the leakage points between adjacent units. Both are important to identify because envelope leakage affects energy efficiency (and comfort) and unit-to-unit leakage</p> <p>C5.5.a.iv.Written permission to enter and alter must be obtained from the owner(s) of every unit in the Multi-Family Building or Complex.</p> <p>C5.5.d Multi-Family requirements Based on Housing Type</p> <p>i.Stacked Housing Units (Apartments, Condos, 4-plex's, etc.): A whole building approach must be taken for multi-family housing buildings with units that are stacked on each other. Units cannot be weatherized individually. The whole building and all the units in the building must be weatherized together. It does not matter whether the units are individually metered or not. It does not matter if the units are individually owned, or not. These units would be reported as multifamily housing units.</p> <p>ii.Row House without separation of systems (Town houses): A whole building approach must be taken on row housing buildings that do not have a complete separation between units of building thermal barrier, air pressure boundary, and mechanical systems. The whole building and all the units in the building must be weatherized together. These units would not be reported as single family because the entire row house building would need to be weatherized. In this case, a row house building in which all units are weatherized will be reported as multifamily housing units.</p> <p>iii.Applications for Stacked Housing and Row Housing without separation of systems: When applications are received for individual units in a stacked multi-family building, or a row house without separation of systems, agencies should process the applications per Guidelines Section C. The agency should inform the applicant in writing that their unit cannot be weatherized until their whole building is qualified for the weatherization program. This is not a deferral. The applicant's file should remain open until their income eligibility expires, or until the whole building is qualified. Due to limited resources, it is not the responsibility of the Agency or the Utah WAP to proactively work to get buildings qualified, but agencies are required to provide a reasonable level of assistance to applicants and/or building owners in their efforts to get multi-family buildings qualified to be weatherized.</p> <p>iv.Individually Metered Row House with separation of systems (Town houses): If the unit is an individually metered row house where there is a complete separation between units of building thermal barrier, air pressure boundary, and mechanical systems, then the individual unit can be weatherized. The number of units in the building does not matter. It should be audited using the NEAT audit. It should be reported as single family housing.</p> <p>i.2-Plex's, 3-Plex's, or 4-Plex's: If the unit(s) are stacked, follow the guidance on Stacked Housing Units. If the units are Row Houses follow the guidance on row housing. For guidance on Basement Apartments, Mother-in-law additions and similar situations see C1.8.b</p>	<p>B9.2.a. vii.Utah does not have an approved multi-family audit tool. Contact the State for guidance prior to accepting any application of a project larger than 4 units. Multi-family buildings with be audited with EA-QUIP, and will be reviewed by HCD and DOE.</p> <p>C5.5.a.iv. new section added</p> <p>C5.5.d. new section added</p>	7	State	mjturner@utah.gov	8011234567	Matt Turner	Edited
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Utah WAP Guideline Change Form

Change Tracking Number	Timestamp	What section do you want changed?	Reason for suggested change?	Proposed text of change.	Current text.	Name of agency or organization	Name of submitter	Status (Pending, Approved, Disapproved, Edited, Published)	Comments:
2021-001	1/4/2021 14:	B8.25.f Water Heaters	To clarify that replacing a water heater just because it is not HUD approved for mobile homes is not an allowable reason to replace a water heater in the Weatherization program	B8.25.f.Replacing a water heater solely because it is not HUD approved for Mobile Homes (non-mobile home approved) is not allowable.	None, this is a new section	State	Matt Turner	Edited	I added this to the working guidelines and published the change to the network in the Mobile Home Water Heater FAQ
2021-002	2/8/2021 11:	B9.4.h Worst Case Draft Testing	To clarify that auditors must test all appliances that are not sealed combustion appliances, including appliances in rooms that are adjacent to the building envelope such as garages, exterior water heater closets, attics and crawl spaces.	i.A Worst Case Draft/Spillage Test shall be conducted on every client home at the following stages: as part of the energy audit, at the end of each day where a measure is installed that affects the draft of vented appliances, and as part of the QCI. The BPI Combustion Appliance Safety Inspection for Vented Appliances standard shall be followed when conducting the test (see NEAT Audit section of WAP Resources webpage, BPI 1200 Quick Reference Card). The purpose of this test is to document the current venting conditions of all combustion appliances that are not Category IV appliances; and to determine if any corrective actions or a deferral are necessary. ii.All combustion appliances that are not Category IV shall be tested. This includes appliances in spaces that are adjacent to the building envelope where the appliance's draft is effected by pressure changes within the building. Examples of Adjacent Spaces are appliances in: attics, basements, crawlspaces, garages, and manufactured housing with exterior furnace or water heater closets. If an adjacent space is found to be completely disconnected from the building envelope, thru Zonal Pressure Diagnostic (ZPD) testing results of -50 PA wrt the building envelope, the appliance in the adjacent space will not require worst case draft testing from that point forward. The ZPD results showing the complete disconnect shall be documented on the Worst Case Draft Test form. If any work is done which causes the space to again communicate with the living space of the dwelling, WCD testing would again be required. iii.Worst Case Draft test results shall be documented using the A09 Worst Case Draft Test form (see NEAT Audit section of WAP Resources webpage) or Tech Log. When Tech Log is used all information that is on the A09 Worst Case Draft Test form should be added to the Tech Log report. See also E7.8 Combustion Gases	i. A Worst Case Draft/Spillage Test shall be conducted on every client home as part of the energy audit. Auditor's shall follow the BPI 1200 standards (see NEAT Audit section of WAP Resources webpage, BPI 1200 Quick Reference Card) when conducting the test. The purpose of this test is to document the current venting conditions of any combustion appliances and to determine if any corrective actions or a deferral are necessary. The Pre-Wx Worst Case Draft test shall be documented using the A09 Worst Case Draft Test form (see NEAT Audit section of WAP Resources webpage) or Tech Log. When Tech Log is used all information that is on the A09 Worst Case Draft Test form should be added to the print out. See also E7.8 Combustion Gases	State	Matt Turner	Edited	I added these changes to the working guidelines
2021-003	2/22/2021 9:	C1.9.a.i.	Update to the federal statute for this.	i.Dwellings that have been previously weatherized. •If the dwelling unit was previously weatherized and has an Approved Date less than 15 years from the date the applicant signed the application, it shall be considered ineligible for weatherization. •If the Approved Date greater than 15 years from the Application Date, date the applicant signed the application, it shall be considered eligible for weatherization and reported as a Reweatherized Unit •Local agencies must verify this status by address using agency or Housing and Community Development files.	i. Dwellings that have been previously weatherized. • If the dwelling unit was weatherized on or after 30 September 1994 it shall be considered ineligible for weatherization. • Local agencies must verify this status by address using agency or Housing and Community Development files.	State of Utah WAP	Brad Carpenter	Edited	
2021-004	2/27/2021 10	A2.2.a.i.	Changes to federal regulation	i.Not more than 7.5% of the allocated funds may be used for Administrative Costs.	i.Not more than 5% of the allocated funds may be used for Administrative Costs.	State of Utah WAP	Brad Carpenter	Edited	
2021-005	2/27/2021 10	A2.2.a.ii.	Changes to federal regulation	ii.Sub-grantees receiving less than \$350,000 in DOE funds may be allowed to use up to 12.5% of their grant funds for administrative purposes.	ii.Sub-grantees receiving less than \$350,000 in DOE funds may be allowed to use up to 10% of their grant funds for administrative purposes.	State of Utah WAP	Brad Carpenter	Edited	
2021-006	2/27/2021 10	A2.10.a	Update old language	A2.10.a.A copy of the contract form and amendment page(s) to be used for Utah WAP contracts with agencies can be found in the WebGrants grant management website. The Division of Housing may amend and change the contract form when necessary.	A2.10.a.A copy of the contract form and amendment page to be used for 2016-2017 contracts with agencies can be found in Attachment15. The Division of Housing may amend and change the contract form when necessary.	State of Utah WAP	Brad Carpenter	Edited	
2021-007	2/27/2021 11	A5.2	Change in federal regulation	A "Partial Weatherized Unit" is a dwelling that has NOT meet all of the above requirements. This might be caused by Deferral or that the client refuses services or access after the weatherization process has began. These units have had funds expended on them but cannot be reported or counted as a completion. A Partial Weatherized Unit is subject to the Prior Weatherization rules as described in C1.9.a.i.	A "Partial Weatherized Unit" is a dwelling that has NOT meet all of the above requirements. This might be caused by Deferral or that the client refuses services or access after the weatherization process has began. These units have had funds expended on them but cannot be reported or counted as a completion.	State of Utah WAP	Brad Carpenter	Edited	
2021-008	2/27/2021 11	B7.7.a.iv.	Add language about new form	iv.Purchase requests will be submitted to State WAP using the Utah WAP Vehicle & \$5k Purchase Request form.	None	State of Utah WAP	Brad Carpenter	Edited	
2021-009	2/27/2021 11	B7.9.a.ii.	Add language about new form	ii.Agency shall request disposal using the Utah WAP Vehicle & \$5k Disposal Request form.	None	State of Utah WAP	Brad Carpenter	Edited	
2021-010	2/27/2021 11	E3.1.a	Update with PY 21 numbers	E3.1.a.Based off of PY20 data, Utah WAP has set the H&S expenditure limits for all PY 21 funding sources at 14.9% of the allocated Program Operations budget. The statewide H&S ACPU (including all funding sources) should not exceed \$1158 for the program year. This applies to all active contracts that have a Health & Safety line item in the budget. This percentage will be adjusted annually based off the previous year's expenditures.	E3.1.a.Based off of PY19 data, Utah WAP has set the H&S expenditure limits for all PY 20 funding sources at 14.9% of the allocated Program Operations budget. The statewide H&S ACPU (including all funding sources) should not exceed \$1143 for the program year. This applies to all active contracts that have a Health & Safety line item in the budget. This percentage will be adjusted annually based off the previous year's expenditures.	State of Utah WAP	Brad Carpenter	Edited	

APPLICATION FOR FEDERAL ASSISTANCE SF-424

Version 02

1. Type of Submission:

- ☐ Preapplication
☒ Application
☐ Changed/Corrected Application

2. Type of Application:

- ☐ New
☒ Continuation
☐ Revision

If Revision, select appropriate letter(s)

Other (specify):

3. Date Received

4. Applicant Identifier:

5a. Fed Entity Identifier:

5b. Federal Award Identifier:

DE-EE0007953

State Use Only:

6. Date Received by State:

7. State Application Identifier:

8. APPLICANT INFORMATION:

a. Legal Name: Utah Department of Workforce Services

b. Employer/Taxpayer Identification Number (EIN/TIN):
876000545

c. Organizational DUNS:
621491328

d. Address:

Street 1: 1385 S. State St.
Street 2:
City: Salt Lake City
County: SALT LAKE County
State: UT
Province:
Country: U.S.A.
Zip / Postal Code: 841150000

e. Organizational Unit:

Department Name:
Department of Workforce Services

Division Name:
Housing & Community Development Division

f. Name and contact information of person to be contacted on matters involving this application:

Prefix: Mr First Name: Bradley
Middle Name:
Last Name: Carpenter
Suffix:

Title: WX Program Manager

Organizational Affiliation:

Telephone Number: 8014680134

Fax Number: 8014680211

Email: blcarpenter@utah.gov

APPLICATION FOR FEDERAL ASSISTANCE SF-424

Version 02

9. Type of Applicant:

A State Government

10. Name of Federal Agency:

U. S. Department of Energy

11. Catalog of Federal Domestic Assistance Number:

81.042

CFDA Title:

Weatherization Assistance Program

12. Funding Opportunity Number:

DE-WAP-0002021

Title:

2021 Weatherization Assistance Program

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

Statewide

15. Descriptive Title of Applicant's Project:

The Weatherization Assistance Program enables low-income families to permanently reduce their energy bills by making their homes more energy efficient.

APPLICATION FOR FEDERAL ASSISTANCE SF-424

Version 02

16. Congressional District Of:

a. Applicant: Utah Congressional District 03

b. Program/Project: UT-Statewide

Attach an additional list of Program/Project Congressional Districts if needed:

17. Proposed Project:

a. Start Date: 07/01/2021

b. End Date: 06/30/2022

18. Estimated Funding (\$):

a. Federal	2,573,038.00
b. Applicant	0.00
c. State	0.00
d. Local	0.00
e. Other	0.00
f. Program Income	0.00
g. TOTAL	2,573,038.00

19. Is Application subject to Review By State Under Executive Order 12372 Process?:

- ☐ a. This application was made available to the State under the Executive Order 12372 Process for review
- ☒ b. Program is subject to E.O. 12372 but has not been selected by the State for review.
- ☐ c. Program is not covered by E.O. 12372

20. Is the applicant Delinquent On Any Federal Debt? (If "Yes", provide explanation)

No

21. By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to**

☒ I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency

Authorized Representative:

Prefix: Mr First Name: Bradley

Middle Name:

Last Name: Carpenter

Suffix:

Title: WX Program Manager

Telephone Number: 8014680134

Fax Number: 8014680211

Email: blcarpenter@utah.gov

Signature of Authorized Representative: Signed Electronically

Date Signed:

Authorized for Local Reproduction

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

(Grant Number: EE0007953, State: UT, Program Year: 2021)

IV.1 Subgrantees

Subgrantee (City)	Planned Funds/Units
Bear River Association of Governments (Logan)	\$220,597.00 48
Five County Association of Governments (St. George)	\$257,959.00 57
Mountainland Association of Governments (Vineyard)	\$354,719.00 80
Salt Lake Community Action Program (Salt Lake City)	\$802,795.00 170
Six County Association of Governments (Richfield)	\$185,960.00 44
Southeastern Utah Association of Local Governments (Price)	\$167,880.00 39
Uintah Basin Association of Governments (Roosevelt)	\$157,734.00 39
Total:	\$2,147,644.00 477

IV.2 WAP Production Schedule

Planned units by quarter or category are no longer required, no information required for persons.	
Weatherization Plans	Units
Total Units (excluding reweatherized)	<input type="text" value="477"/> 477
Reweatherized Units	<input type="text" value="0"/> 0
Average Unit Costs, Units subject to DOE Project Rules	
VEHICLE & EQUIPMENT AVERAGE COST PER DWELLING UNIT (DOE RULES)	
A Total Vehicles & Equipment (\$5,000 or more) Budget	\$0.00
B Total Units Weatherized	477
C Total Units Reweatherized	0
D Total Dwelling Units to be Weatherized and Reweatherized (B + C)	477
E Average Vehicles & Equipment Acquisition Cost per Unit (A divided by D)	\$0.00
AVERAGE COST PER DWELLING UNIT (DOE RULES)	
F Total Funds for Program Operations	\$1,437,498.00
G Total Dwelling Units to be Weatherized and Reweatherized (from line D)	477
H Average Program Operations Costs per Unit (F divided by G)	\$3,013.62
I Average Vehicles & Equipment Acquisition Cost per Unit (from line E)	\$0.00
J Total Average Cost per Dwelling (H plus I)	\$3,013.62

IV.3 Energy Savings

Method used to calculate savings: <input checked="" type="checkbox"/> WAP algorithm <input type="checkbox"/> Other (describe below)			
	Units	Savings Calculator (MBtus)	Energy Savings
This Year Estimate	477	29.3	13976
Prior Year Estimate	504	29.3	14767

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

(Grant Number: EE0007953, State: UT, Program Year: 2021)

Prior Year Actual	117	29.3	3428
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Method used to calculate savings description:

While Utah is using the DOE formula for calculated savings we have been collecting the Audited MmBtu data from each job. Our data indicates that we are exceeding the DOE average of 29.3MmBtu per unit. The decreasing trend is reflective of the increasing cost to weatherize and more stringent auditing standards.

Avg Audited MmBtu Saved

	PY 17	PY 18	PY 19	PY 20 (pre)
BRAG	45.6	39.75	46.7	42.6
UCA	41.07	33.11	33.5	31.8
MAG	35.97	28.36	29.6	22.5
UBAOG	69.23	41.56	37.6	37.2
SEUALG	28.69	26.1	49.2	24.4
SCAOG	31.17	22.42	27.9	27
FCAOG	28.4	21.76	14.7	20.3
State	39.08	31.61	32.3	28.6

IV.4 DOE-Funded Leveraging Activities

IV.5 Policy Advisory Council Members

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

Catholic Community Services of Utah	Type of organization: Non-profit (not a financial institution) Contact Name: Monica Rich Phone: (801)977-9119 Email: mrich@ccsutah.org
Catholic Community Services of Utah	Type of organization: Non-profit (not a financial institution) Contact Name: Rose Olivas Phone: 8019779119 Email: rolivas@ccsutah.org
Futures Through Training	Type of organization: Non-profit (not a financial institution) Contact Name: Natalie Alejandre Phone: (801)394-9774 Email: natalieaftt@aol.com
Housing Authority of the County of Salt Lake	Type of organization: Non-profit (not a financial institution) Contact Name: Kelly Walsh Phone: 8014280588 Email: kwalsh@haslcutah.org
Mountainland Association of Governments	Type of organization: Local agency Contact Name: Heidi Demarco Phone: (801)229-3804 Email: hdemarco@mountainland.org
Mountainland Association of Governments	Type of organization: Local agency Contact Name: Katie Mitchell Phone: 8018749016 Email: kmitchell@mountainland.org
Questar Gas	Type of organization: Utility Contact Name: Brett Brown Phone: 8013243523 Email: brett.brown@dominionenergy.com
Rocky Mountain Power	Type of organization: Utility Contact Name: Stephanie Dobberfuhl Phone: 8019552468 Email: Stephanie.Dobberfuhl@pacificorp.com

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

(Grant Number: EE0007953, State: UT, Program Year: 2021)

Salt Lake Cap	Type of organization: Non-profit (not a financial institution) Contact Name: Patrice Dickson Phone: 8017591506 Email: pdickson@slcap.org
Salt Lake CAP	Type of organization: For-profit or Corporate (not a financial institution or utility) Contact Name: Ian Spangenberg Phone: 8012143171 Email: ispangenberg@slcap.org
Salt Lake CAP	Type of organization: Non-profit (not a financial institution) Contact Name: Jennifer Godfrey Phone: 8019771122 Email: jgodfrey@slcap.org
Southeastern Utah Association of Local Government	Type of organization: Unit of Local Government Contact Name: Geri Gamber Phone: 4356130037 Email: ggamber@seualg.utah.gov
State Energy Assistance Lifeline	Type of organization: Unit of State Government Contact Name: Sisifo Taatiti Phone: 8014680069 Email: staatiti@utah.gov
State Energy Assistance Lifeline	Type of organization: Unit of State Government Contact Name: Sheri Kerr Phone: 8014680014 Email: sherikerr@utah.gov
United Way of Salt Lake	Type of organization: Non-profit (not a financial institution) Contact Name: Anna Fannesbeck Phone: (801)746-2577 Email: anna@uw.org
Utah AARP	Type of organization: Non-profit (not a financial institution) Contact Name: Danny Harris Phone: 8015672643 Email: DJHarris@aarp.org
Utah Department of Human Services	Type of organization: Unit of State Government Contact Name: Debbie Stark Phone: (801)468-0111 Email: dstark@utah.gov
Utah Division of Public Utilities	Type of organization: Unit of State Government Contact Name: Stefanie Liebert Phone: 8015306285 Email: sliebert@utah.gov
Utah Housing Coalition	Type of organization: Non-profit (not a financial institution) Contact Name: June Hiatt Phone: 8013640077 Email: jhiatt@utahhousing.org
Utah Weatherization Assistance Program	Type of organization: Unit of State Government Contact Name: Bradley Carpenter Phone: 8014680134 Email: blcarpenter@utah.gov

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

03/18/2021 State of Utah Public Notice Website Published on 2-9-2021. Salt Lake Tribune 2-21 & 28-2021 & Deseret News Published 2-19 & 26-2021 .
Public Hearing Notice Confirmations attached to the SF 424 as: Utah WAP Public Hearing & PAC Documents PY 21

IV.7 Miscellaneous

Div of Human Services represents Disabled and Elderly.
United Way & SL Cap advocate for native Americans.

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Southeastern Utah ALG was added to PAC, they provide service to the Navajo Reservation for many state programs.

PAC reviewed the Annual Weatherization Plan as part of their meeting. There were no comments received regarding the plan or any historical input either.

COVID 19 Impact

At the time of this application Utah expect to continue to see impacts from the COVID 19 pandemic on PY 21 production. While we continue to plan for a traditional year it needs to be assumed there will be significant barriers.

Production & Average Cost Per Unit

The ACPU represented in this application does not take in to account the braiding of fund Utah WAP uses. Since DOE fund equals approximately 33.9% +/- of our total funding the ACPU reflected in this application is likewise approximately 33.9% +/-.

ASCI Survey Action Plan

Utah again has scored very high in every category. While the scores would indicate we are doing well the comments provided some opportunities for improvement. Utah has taken the following steps in response to the ASCI:

- Expanded the quarterly Coordinator's Meeting format to include a Professional Development portion.
 - Training using a 3rd party instructor from the state's Certified Public Manager's Program
 - Training is leadership focused with post training follow up between meetings.
- Obtained more agency participation in field guide development.
- Revised and continuing to improve the monitoring reports and tools to give better feedback from the monitoring process.

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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

The State of Utah Department of Workforce Services (DWS) Housing and Community Development (HCD) Weatherization Assistance Program (WAP) provides services to applicants who are verified to be "Low Income" in accordance with 10 CFR 440.22.(a) (1)(2)(3)

- The household's annualized income, as determined by the guidance in WPN 21-3 (or current version when updated by DOE), is at or below 200% of Poverty Level.
- The household contains a member who is receiving or within the last 12 months @ time of application, benefits under the provisions of Title IV or XVI of the Social Security Act.
- The household is determined to be eligible for Low-Income Home Energy Assistance Program (LIHEAP) operated in Utah as the Home Energy Assistance Target (HEAT) program.

Sub-Grantees verify Income eligibility using one of the above methods.

The majority of Utah's WAP applicants are referred by the State's HEAT program. Utah WAP has a verification system that allows the local agencies to search the HEAT Program's database and independently verify the award status and date. This documentation is printed and placed in the client file.

When an applicant is not a HEAT recipient local agencies obtain proof of income that complies with WPN 21-3 and annualize it to determine the gross annual household income. This documentation is also placed in the client file.

Income eligibility is verified annually from the date of income certification while the applicant is on the waiting list or for other reasons.

Additional collection of documentation verifies the applicant residency status to ensure only U.S Citizens or qualified aliens receive assistance.

Attachment

Utah WAP Guidelines

(Certain sections of this document are referred to throughout the Master File)

Describe what household eligibility basis will be used in the Program

Section C1. of the Utah WAP Guidelines details the entire eligibility process. This process is fully documented by the local agencies using the Client File. The required contents of the Client File are covered in Section C4. of the WAP Guidelines.

Household Income Eligibility is determined by combining the income of all qualified legal and non-legal US residents residing in the dwelling. For the purposes of determining a household priority non-legal residents are not to be considered in the household total count or any other category.

Household Income is determined by all members of the household 18 years of age or older. This would include non-legal residents of the US 18 years and older. 18 year old full time high school students need not provide proof of income.

A qualified household will have an income that meets one of the following:

- The household's annualized income, as determined by the guidance in WPN 20-3, is at or below 200% of Poverty Level.
- The household contains a member who is receiving or within the last 12 months @ time of application, benefits under the provisions of Title IV or XVI of the Social Security Act.

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- The household is determined to be eligible for Low-Income Home Energy Assistance Program (LIHEAP) operated in Utah as the Home Energy Assistance Target (HEAT) program.

Multi-Family Units will meet the provisions of 10 CFR 440.22(b)(2)

- Sub-grantees will ensure not less than 66% of the households in the building are qualified. 50% when the building is a duplex or 4-plex.

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

In determining eligibility of qualified aliens agencies have been instructed to view the HHS guidance referenced in WPN 21-3. Additionally Utah WAP has provided additional guidance to assist them.

To be considered for eligibility all applicants must be an adult (18 years old) and US Residents, or a "Qualified Alien".

- US residents would typically have a birth certificate from the US and/or Social Security card.
- Qualified Aliens are residing in the US in a legal status and are in possession of documentation that indicates that status. Intake staff are trained and educated to refer to Attachment #3 - Form M-396 (INS pamphlet about travel and identity documents) for more details on those documents
- Any applicant who cannot produce documentation indicating citizenship or qualified alien status are not eligible.
- Social Security numbers will be requested for all residents. This is needed to identify employment using E-Share or E-Rep.(Utah Dept. of Workforces Services eligibility systems) Refusals to provide this information will be dealt with by the local agency on a case-by-case basis but the approval process cannot proceed until residency status is determined.
- Total income from all of the occupants of the home must be counted, but only those individuals that are citizens or qualified aliens will be counted towards the Total Household in household count when determining priority points.

V.1.2 Approach to Determining Building Eligibility

Procedures to determine that units weatherized have eligibility documentation

In verifying Building Eligibility, documentation is collected to determine who the building's legal owner is and obtain both Right of Entry and Right of Alteration of structure from the legal owner. This documentation typically covers the building construction date which allows for determining the need to address the need for lead testing and SHPO. During this process it also helps them determine if the property is being used for Income Purposes. This would provide the trigger to then treat and report the building as a rental unit and attempt to obtain a cost share from the owner.

Since this documentation comes from government sources, tax roles, DMV titles to mobile or manufactured homes etc... it gives the local agency the information to also ensure that the structure is permanent in nature and has a physical address not a P.O. Box. The one exception to this would be on the Navajo Reservation and other tribal lands where land ownership is prohibited. In these cases where the applicants have a P.O Box the actual job location is marked using GPS during the audit.

The client is required to provide utility billing information or a release that allows the local agency to obtain this information directly from the utility company. Finally they collect a Client Health & Safety Assessment as required by WPN 17-7

Once these all these conditions are met the unit is determined to be eligible.

Documentation that will be collected

- Signed application
- Proof of household income
- Proof of Property Ownership
- Owner right of entry and alteration

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- Landlord agreement for rental units
- SHPO approval on homes that are 50 years old or older
- A Client health and Safety assessment form
- Fuel usage history
- Proof of Citizenship

Utah's SHPO agreement was initially executed on 27 May 2010 valid for 3 years. Utah WAP renewed the agreement on 27 November 2020. The new agreement is in place until 31 December 2030.

Additionally we have a memorandum of agreement with the Navajo Nation regarding work on their land that aligns with the Utah SHPO agreement.

Utah Dept. of Heritage and Arts, who administers SHPO has fielded an online system now for local agencies to submit for SHPO approval.

<https://heritage.utah.gov/history/shpo-compliance>

Describe Reweathering compliance

Utah WAP acknowledges the changes to these provisions associated with reauthorization (WAP Memo 75) and have amended their policy to indicate that the "previously weatherized" date will now be the 15 year rolling option the new legislation outlines.

HCD operates the LIHEAP and HUD programs for the State of Utah. Only the LIHEAP program offers any weatherization program, which is done by Utah WAP. The tracking of these completions is currently in the existing reporting system and we are able to ensure compliance with the new regulations. Utah WAP has coordinated with USDA, Utah Office, Housing Program Director, Lori Silva to verify that they do not fund any weatherization program and that if they do they will coordinate their work and reporting of such with ours.

To comply with 10 CFR 440.18(e)(2)(iii)

Sub-grantee will verify the unit against the HCD database (known as WebGrants)

- For previously weatherized units served under WAP or other Federal program 15 years after they are reported as a completion are not eligible.
- Units served more than 15 years after they are reported as a completion are eligible for re-weatherization. These units will follow all procedures as currently described in Utah WAP policy. These units will be reported as re-weatherized units to DOE.

Utah's reporting database has at least some basic information on units completed dating back to 1977. Local agencies search this as well as their own historic information in attempting to determine if the unit has been previously weatherized.

The reporting system which local agencies report their completions allows them to identify when one of the eligible units is re-weatherized thus allowing us to capture this data for reporting.

A unit that is determined to be eligible for reweatherization will be subject to all other applicant and building eligibility requirements previously mentioned in V.1.2 (e.g. household income, energy audit, health and safety assessment etc.)

Describe what structures are eligible for weatherization

Eligible Dwellings

To be considered an Eligible Dwelling unit the applicant's residence will meet one of the following:

- Single family dwelling (house)
- Townhome (Multi-family)
- Apartment (Multi-family)
- Studio Apartment (Multi-family)

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Cottage
Condo
Manufactured home
Mobile home
Shelter (under certain circumstances)

To be considered a eligible dwelling the unit will be permanent in nature. Usually this means it would require significant dis-assembly or major disconnection of utility services before it could be moved. Things considered that could make it ineligible are:

A hitch or other device to be used for towing.

Is self-propelled.

Has operable axles, tires or wheels

Can be easily moved or relocated.

Is not connected to public utilities.

Ineligible Dwellings

No funds shall be used to weatherize a dwelling unit which is not eligible

Dwelling unit was previously weatherized and has an Approved Date less than 15 years from the date the applicant signed the application.

Dwelling is vacant or not being occupied

Designated for acquisition or clearance by a federal, state, or local program.

Dwelling has been foreclosed

A dwelling is not eligible for weatherization unless it is the present and primary residence of the applicant. (summer homes, cabins, or other part time residences are not eligible.)

Commercial buildings are not eligible.

Utah WAP will be working to add policy language to address deferral of homes under remodel.

Describe how Rental Units/Multifamily Buildings will be addressed

To be considered a qualified Multi-Family Building it will require 66% of all households contained, 50% when the building is a duplex or 4-plex, in the building to be to be eligible for use of DOE funds.

Each Client File will contain a copy of the **Income Property Owner Weatherization Agreement**. This is a signed & notarized document executed between the legal property owner and the local agency. This document provides right of entry and right of alteration of structure for the local agency. It also establishes the grievance process for both the landlord and tenant. There are also provisions for dispute resolution using the Utah Energy Advisory Council and if necessary a 3rd party arbitrator. Additionally the document contains the language that provides other protections:

- Landlord agrees to not raising the rent for at least 1 year after weatherization services unless those increases are related to matters other than the weatherization services that were provided.
- Landlord agrees to no involuntary eviction, without cause, after weatherization services
- Landlord indicates if they agree to participate in the sharing of costs for particular services

Clients in rental units also provide proof of energy burden through utility bills or documentation showing that it is included in the rent at the time of application this helps ensures they are recognizing the benefits of weatherization services directly.

A 50% cost share for weatherization materials and labor on certain major measures is strongly encouraged but not required for rental units for compliance with 10 CFR 440.22(b)(3)(iv) preventing undue enhancement. The cost share is not a buy down of the SIR in SF. Cost sharing measures are:

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- Furnace Replacement
- Window Replacement
- Door Replacement
- Refrigerator Replacement

Describe the deferral Process

There are many reasons for the weatherization process to be deferred. Deferral is not refusal of service. It merely places the weatherization process on hold until such time that the issue(s) are resolved. Documentation of the issue is done using a State approved form and a letter to the client. It is incumbent on the sub-grantee to clearly communicate the specific nature of the cause for deferral and the conditions which must be achieved for the weatherization process to resume. A copy is provided to the client at time of deferral and a copy is mailed. There are times when the delivery at time of deferral is not possible. (hostile client, drugs, etc...) The notification in these situations is the mailed letter. The client is give at least 30 days to resolve the issue for deferral but the local agency has the flexibility to increase this when they feel it is warranted.

Some of the more common conditions encountered are:

- Structurally unsound dwelling or one that is condemned for human habitation.
- Evidence of persistent infestation of rodents, insects, and other vermin.
- Electrical or plumbing hazards that cannot be resolved prior to or as a part of the authorized WX work.
- The presence of sewage in any part of the dwelling unit
- Evidence of environmental hazards such as: serious moisture problems, mold & mildew, carbon monoxide, gas leaks, friable asbestos, or other hazardous materials, which cannot be resolved prior to the WX work.
- The presence of animal or human feces in an area of the dwelling unit where field staff must perform various WX measures.
- Excessive garbage and clutter build up in and around the dwelling unit where field staff must perform WX measures.
- Maintenance and housekeeping practices that are negligent to the point of limiting access of field staff to the dwelling or creating an unhealthy working environment.
- Threat(s) of violence, verbal abuse, physical abuse, or profanity towards any worker(s) or household member during the WX process.
- Evidence of the presence and/or use of any illegal/controlled substance in the dwelling unit.
- Evidence of drug cultivation, distribution, and/or manufacturing on the premises.
- A heating system in use has been determined to be unsafe or nonfunctional (through the determination of a qualified technician) and cannot be resolved through the normal efforts of the WX agency prior to the weatherization work or during the normal weatherization process.
- An un-vented space heater or other un-vented combustion appliances are present in the unit, which WX personnel have been unable to remove from the home.

Sub-grantees are directed, when possible, to provide a referral to any known resource that might better assist the client in resolving the cause for deferral.

The client may appeal the decision of the agency at anytime during the process.

The appeal process is a 3 tier process. The goal is to resolve issues at the sub-grantee level if possible. When needed HCD will intercede at the client or sub-grantee's request to help address the issue. The highest level is a formal administrative hearing at the DWS Division of Adjudication.

Steps

1. Agency resolution
2. State WAP resolution
3. DWS Adjudication & hearing

Utah WAP implemented a method of tracking deferrals at the state level in PY 2019.

V.1.3 Definition of Children

Definition of children (below age): 19

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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 qualified low-income members of all Utah Native American Tribes shall receive benefits and priority ranking equivalent to the assistance provided to other low-income persons within the state.

In San Juan County, a satellite office of SEUALG Weatherization Assistance Program, provides services to eligible clients living on the Utah portion of the Navajo Indian Reservation, the largest Native American population in the State. Additional non-DOE funds are awarded to SEUALG for the Navajo Reservation service area due to the extreme need in the area. This satellite office is awarded its own allocation base amount like a standalone agency. As needed, additional LIHEAP Weatherization funds are also allocated for Navajo Reservation production above and beyond the regular LIHEAP allocation.

V.2 Selection of Areas to Be Served

Compliance with 440.14(c)(6)(ii) - Utah will serve the entire state in PY 21

The current Utah Service Areas are aligned with the existing boundaries of the parent organizations of the sub-grantees. Sub-grantee selection is predominantly Association of Governments (AOG) (6) with one non-profit CAA. In some instances the AOG is the CAA for that portion of the state. The AOG model is the preferred means of service delivery by the State for the mostly rural areas. This has proved to be the most economical in delivery of services over these large areas. 6 of 7 sub-grantees have been delivering weatherization to the citizens of the State since the inception of the program. There have been no historic public comments during the public hearing process or otherwise to the State for the selection of sub-grantees.

Utah has updated its policies on both selection and termination of sub-grantees based of recommendations and best practices after the change of a sub-grantee in PY 18. These changes better reflect the requirements in 2 CFR 200, 10 CFR 440 and state requirements.

Agency Selection Criteria:

All eligible local Weatherization agencies were selected on the following basis:

- Public comment,
- Experience in weatherization
- Availability of State Certified Energy Auditors & Quality Control Inspectors
- Trained furnace technicians
- Past & Current weatherization performance,
- Ability to secure qualified labor
- Experience in serving low-income households

These boundaries are mapped in an agency map included in the Utah WAP PY 21 Monitoring document attachment.

V.3 Priorities

Utah has a comprehensive priority system that encompasses all the requirements of 10 CFR 440.16(b). When a sub-grantee has a backlog of clients exceeding 2 months or more they are required to create and maintain a Waiting List. This list shall be prioritized on a points system. The Clients with the most points are pulled from the list and added to the sub-grantee's production based on their capacity. This process is documented in the client file.

Priority points are awarded to applicants in the key areas as required by 10 CFR 440.16(b).

- Elderly (Age 60 or older)

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- Disabled
- Pre-school age children
- High energy user (calculated using the method below)
- High energy burden (calculated using the method below)

Energy User Percentage - The most recent 12 consecutive month consumption, from date of application, of the applicant's metered primary heating fuel divided by Utah average energy usage. (6540kWh and 59.5dth) These numbers were derived with the assistance of the primary natural gas and electric utilities in the state.

Energy Burden Percentage - The sum of expenses of the most recent 12 consecutive month, from date of application, of the applicant's metered utilities divided by their annualized household income. This would typically be natural gas & electricity.

The sub-grantee will enter the relevant data in to the HCD WebGrants database as part of their completion reporting. This data will be collected and used in the Grantee reporting to DOE.

V.4 Climatic Conditions

The state of Utah has a climate of extremes. In populated areas, heating degree days range from less than 3,200 to over 10,000. Cooling degree days range from near zero to over 2,200. Elevations in these same areas range from less than 2,500 feet to over 8,500 feet. Temperature extremes commonly go from less than -30 degrees F. to over 110 degrees F. Many of these extremes occur within the same local Weatherization agency area less than 100 miles apart. The average wind speed in the state is eight to twelve mph. Seasonal wind speeds may average 15 to 20 mph with occasional sustained average wind speeds far exceeding 50 mph.

Due to the extremes of temperature found throughout the state and even within some local WAP agency areas, the audit procedures used by all local WAP agencies have been prescribed to require specific weather files based on the location of the client. This allows more accurate audits whose results are tailored to each specific dwelling unit and climate zone.

The state of Utah is primarily a heating climate even though the southern portion of the state has major cooling loads. When using the WA 8.9 audit tool, heating is a far more significant factor than cooling in determining energy conservation measures. In every case the heating loads require more comprehensive measures than cooling loads. Where possible and allowable under the WA 8.9 audit tool, weatherization improvements will meet the state energy code.

State WAP has established a list of weather files to be used in the WA 8.9 audit tool to address the varied climate due to changes in altitude:

- BRAG = Pocatello, ID
Rich County = Rock Springs, WY
- UBAOG = Rock Springs, WY
- 5 County AOG = Washington County below 4000' = Yucca Flat, NV above 4000' = Cedar City, UT
All other areas = Cedar City, UT
- SEUALG = San Juan County below 4500' = Yucca Flat, NV above 4500' = Salt Lake City, UT
- All other agencies below 4500' = Salt Lake City, UT above 4500' = Cedar City, UT

Utah is still awaiting the 2020 U.S. Census to update this data.
Attachment 16: Allocation Formula Degree Days

1981-2010 Population Weighted Heating Degree Day Norms
BEAR RIVER AOG
Box Elder 6,383

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Cache 7,481
Rich 9,381
FIVE COUNTY AOG
Beaver 6,332
Garfield 7,235
Iron 6,327
Kane 5,815
Washington 4,462
HOUSING AUTHORITY OF UTAH COUNTY
Summit 8,592
Utah 5,861
Wasatch 7,436
SALT LAKE CAP dba Utah Community Action
Salt Lake 5,594
Tooele 6,153
Davis 5,943
Morgan 6,752
Weber 6,245

SIX COUNTY AOG
Juab 6,496
Millard 5,934
Piute 6,541
Sanpete 6,423
Sevier 6,088
Wayne 7,291
SOUTHEASTERN UTAH ALG
Carbon 6,847
Emery 6,692
Grand 5,469
San Juan 5,979
UINTAH BASIN AOG
Daggett 8,632
Duchesne 6,881
Uintah 7,650

V.5 Type of Weatherization Work to Be Done

V.5.1 Technical Guides and Materials

Only energy conservation materials which meet or exceed standards prescribed in 10 CFR 440 Appendix A will be purchased and installed utilizing DOE program funds. Measures are determined by using the Weatherization Assistant 8.9

The current Utah Weatherization Field Guides were **approved on 5-1-2018**. Utah has submitted for renewal 28 January 2021 and is in the review process at this time. Utah does not anticipate any issues with approval on or before 5-1-2021.

The current field guides were hand distributed to the subgrantees and a online version was made available as well. Subgrantees are responsible to distribute this document to their contractors. Programmatic monitoring includes a check for this as well. The new version will be strictly a web based online product viewable on all device platforms. Since this is a Google site we will include training on how to make it available "offline" so individuals in remote parts of the state will still have access in the field.

Weatherization contract Attachment D Scope of Work contains the language of compliance of work to the field guide that is cross referenced to the SWS and confirmation of delivery of said documents as well. Confirmation is via signature on the executed contract. This has been ongoing since PY 14 to comply with WPN 15-4. (sample document is attached to SF-424)

Sub-grantee efforts to ensure this documentation is delivered to contractors working on their behalf is verified during the annual monitoring process. (See Programmatic Monitoring Checklist starting on page 7) State Staff has worked with the sub-grantees to develop either Standard Terms and Conditions or contractual language to meet the requirement of WPN 15-4. Since agencies use the

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contractors for non-DOE work as well they are required to add other terms as needed. The required language covers: Confirmation of delivery of work specifications, training cost and retention/repayment for training expenses.

Link to Utah Field Guides: <http://wxfieldguide.com/ut/>

Unapproved site: <https://sites.google.com/utah.gov/fieldguide/home>

Attachments

2021 DOE Contract Attachment D Scope of Work

Agency Sample Standard Terms & Conditions

Field guide types approval dates

Single-Family:

Manufactured Housing:

Multi-Family:

V.5.2 Energy Audit Procedures

Audit Procedures and Dates Most Recently Approved by DOE

Audit Procedure: Single-Family

Audit Name: Other (specify)

DOE NEAT Audit - Approved July 14, 2020 by Eric Burin, Program Manager, DOE

Approval Date:

Audit Procedure: Manufactured Housing

Audit Name: Other (specify)

DOE MHEA Audit - Approved July 14, 2020 by Eric Burin, Program Manager, DOE

Approval Date:

Audit Procedure: Multi-Family

Audit Name: Other (specify)

The NEAT Audit will be utilized for multi-family buildings with 4 units or less that are individually heated and/or cooled. All other multi family buildings with be audited and approved using the DOE Multi-Family outlined in WPN 16-8

Approval Date:

Comments

Energy auditing for the program is covered using the Weatherization Assistant software ver. 8.9

WA 8.9 is currently used when there are up to 4 dwelling units that are individually heated and/or cooled.

Utah received approval for use of the WA 8.9 tool on 14 July 2020 in a memo signed by Eric Burin.

Utah was approved for LED lighting on 8 December 2015. Measure lifespan increases 3-5-2019. Refrigerators 4-30-2019.

Since Multi-family units are less than 20% of the housing stock Utah does not have an approved multi-family audit. Multi-Family units are handled using the protocol covered in WPN 16-8. It is our intent to pursue a multi-family audit when the tool under development by

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NREL is made available to cover our 5-24 unit housing stock.

The Energy Auditor training and certification has been a priority for Utah. Utah WAP has fully implemented the requirement of the BPI Home Energy Professional Energy Auditor Certification. Currently all of Utah's Energy Auditors are certified and these requirements have been added to our policy. Additionally we have developed and Auditor In Training process to guide and track the training of new hires to ensure they are prepared for the role.

Utah has been actively training auditors on auditing standards that were part of the audit tool re-certification. Utah has implemented a technical monitoring specifically for energy auditing to better evaluate the needs and develop and deliver training on this critical area.

Utah WAP is committed to the conversion of their program from WA 8.9 to the new online tool. At this time Utah feels it is a bit premature to attempt to develop a detailed plan on this transition to comply with WAP Memo 74 given the recent changes at ORNL. Utah does affirm once ORNL deploys a functioning tool and lesson plan we will begin training and transition as quickly as possible. Utah has previously attempted to work with ORNL to Beta test this product and we would hope that these efforts would support our declaration of intention.

The timeline below is predicated on ORNL & DOE meeting thier own timeline in WAP Memo 74. If those dates are not met this becomes null & void.

Utah WAP Tentative WA 10 Transition Timeline

Activity	Goal	Date
Review and prepare WA 10 curriculum	Adapt ORNL WA 10 training to our state	January - February 2022
Deliver WA 10 training to Utah WAP Network	Train network on use of WA 10 with 90% pass rate	April 2022
Begin WA 10 Setup	Transfer Setup, Fuel, & Supply Libraries to WA 10	May 2022
Begin Testing of WA 10	Enter existing audits in to WA 10 for comparsion as training	June 2022
Complete WA 10 Transistion	Begin PY 22 production unit's energy audits in WA 10	1 July 2022

V.5.3 Final Inspection

Utah strives to have a minimum of 2 QCI certified inspectors at each sub-grantee, this varies with turnover. HCD currently has 3 QCI certified individuals. There are a total of 22 in the State; this easily covers the entire needs of the program. The state has an active role in tracking these certifications and CEU's to ensure continuity of service.

Utah WAP has instituted a verification of 3rd party certification, such as QCI. This is detailed in Section D2.7. of the Utah policy. When it is identified that a person preforming work is not meeting the requirements of that certification corrective action is taken to include:

- Retraining
- Disallowance of measures
- Disallowance of entire job
- Non-acceptance of that individual's work

All weatherization work will be directed by a work order that meets the requirements of the State Weatherization Guidelines. All materials purchased and installed will comply with Appendix A 10 CFR 440.

To comply with WPN 15-4 Section 3 Utah has developed policies and procedures to regulate the QCIs. These policies cover:

- Independent QCI & Auditor/QCI – (section B11.5. a. iii.) also required in Scope of Work in contracts
- QCI Validation by State WAP Staff – (section D2. 7.) certifications and CEU's are tracked by IWTC staff
- Revoking QCI validation and non-acceptance of work – (D2. 7. B. iv.)
- Monitoring of the QCI – (section D2. 7. b.)

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At this time, since Utah does not have an approved audit for multi-family, QCI of these types of units are not a pressing concern. Once Utah has an approved multi-family audit tool we will begin training of QCI's to the multi-family QCI JTA's.

Utah policy (section B11.5.a.iii.) allows the smaller sub-grantees to use an Auditor/QCI. Utah will monitor 10% of production for any sub-grantee taking this approach. Utah will monitor 5% of production for any sub-grantee using an independent QCI. For PY 21 below are the monitoring percentages.

Sub-Grantee QCI Approach Monitoring Percentage

Bear River AOG Auditor/QCI 10%
Salt Lake CAP Independent QCI 5%
Mountainland AOG Independent QCI 5%
Uintah Basin AOG Auditor/QCI 10%
Southeastern Utah ALG Auditor/QCI 10%
6 County AOG Auditor/QCI 10%
5 County AOG Auditor/QCI 10%

All units will receive a Final Inspection to insure they comply with the requirements of 10 CFR 440.16(g).

No dwelling unit may be reported to DOE as completed until all weatherization materials have been installed and the sub-grantee, or its authorized representative, has performed a final inspection(s) including any mechanical work performed and certified that the work has been completed in a workmanlike manner and in accordance with the priority determined by the audit procedures.

This dwelling would have the following:

1. Has received a Health & Safety Assessment and been documented on H&S Form #1.
2. Has had all requisite testing conducted and results documented.
3. Has received an Energy Audit by a qualified person in the program.
4. Has had all approved measures installed in a professional and workman like manner.

This includes:

- Audited measures with an SIR of 1 or higher
- Health & Safety Measures
- Incidental Repairs associated with approved audited measures.

Has received a final inspection by a certified QCI:

1. Accounts for all materials credited to the job.
2. Verifies that those materials have been installed according to the program's work specifications.
3. Verifies that all work invoiced by contractors was done and meets the program's work specifications.
4. Reviews the energy audit to compliance with the Utah WAP Guidelines
5. Reviews the Work Order to compliance with the Utah WAP Guidelines
6. Includes a final Worst Case Draft Test.
7. Includes a Post Blower Door test.
8. Has a signed Attachment #9 Final Inspection Partnership Agreement
9. Has a signed QCI Inspection form

A reported completion will also have a complete Client File that includes all the required application, production, inventory, purchasing, testing, and inspection documents.

Has been reviewed by the sub-grantee Weatherization Coordinator/Director or designated representative for completeness and accuracy prior to submission to the State as a completion.

Is a first-time weatherization project or a qualified re-weatherization project.

Was not an amended project previously reported as a Weatherized Unit.

A "Partial Weatherized Unit" is a dwelling that has NOT met the above requirements. This might be caused by Deferral or that the client refuses services or access after the weatherization process has begun. These units have had funds expended on them but cannot

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be reported or counted as a completion. Utah tracks these partial weatherized units in the statewide database.

Attached Documents:

Utah WAP PY21 Monitoring contains the QCI Checklist

V.6 Weatherization Analysis of Effectiveness

How the effectiveness of Subgrantee weatherization is assessed?

- Our goal of doing a program effectiveness study in PY 19 failed to materialize. Our biggest obstacle was lack of comprehensive data and the inability to obtain post-weatherization usage data from utilities. Moving forward Utah WAP aspires to develop a new client qualification and data collection system that will aid in this area. The study is now a mid to long term goal predicated on the capture of needed data.

Utah WAP has been collecting a reasonable amount of data considering the limitations of our dated reporting system. Below are some of the data points we collect and evaluate to measure effectiveness of the sub-grantees.

- Estimated MmBtu's saved. This data is collected from the energy audit. We have 3 good years worth of data now and are able to start seeing trending. We can use this to identify agencies that might need auditor training based on this data.
- Pre & Post Blower Door data. This data point is looked at both from Percentage of Reduction and Average CFM Reduced. This is our key metric for air sealing and pressure diagnostics training.
- Pre & Post ACH 50. This data is being used to help keep the Blower Door data in context. We are beginning to see some correlation to air sealing effectiveness but building tightness prior to Wx can skew that data. The average ACH helps us better understand that impact to the overall air sealing effectiveness at the agency.
- Average Energy Index. We are just getting a decent data set here and trying to understand what it is telling us. One thing that has us puzzled right now is some of the sub-grantees who struggle with MmBtu and Air Sealing have higher Energy Index as well. Instinct would tell us that these homes should have a higher potential savings but we are not seeing those results.

How the comparisons are used in the development of T&TA activities and priorities?

This data is used in the Training Needs Analysis. Review of the Utah WAP T&TA Report will give a better idea of how all of our data is used to drive T&TA.

- Utah WAP is still using a "needs based" approach to development of training. This process takes place after the conclusion of the prior PY so we can examine all relevant data. In most cases we are now trying to compare this data in a 3 year average so we can better see trends.
- We use a process that compiles all monitoring comments in a tracking sheet that gives us a more comprehensive analysis of our monitoring data. This is allowing us to make informed decisions on when the training is a program wide need versus an individual sub-grantee need.
- PY 17 we implemented a training plan section to each technical monitoring report. This supports the previous bullet where we can tailor training needs to the sub-grantee and sometimes even the individual.
- We have been collecting Energy Index data from the WA 8.9 tools. At the end of PY 19 we will have 2 years of data we can begin to review. We hope to compare this data with the Audited MmBtu data. It should give some indication of how well the audit captured the potential savings of the home. This will guide development of audit training.

How the training needs are being assessed?

- At the end of each PY State staff conducts a Training Needs Analysis. It takes into account monitoring data, performance data, and feedback from the sub-grantees. This is rolled into our training plan and other management aspects of the program. State WAP staff does this typically in late July during their 2 day annual strategic planning meeting.
- The monitoring process collects data on local training subgrantees have conducted or participated in. This keeps us from providing something they have already addressed locally.
- Subgrantee can directly request help from State WAP and IWTC.
- Technical monitor's guidance is to try and establish agency specific training plans for the area evaluated based off their monitoring.
- Required certifications and licensure renewal dates are tracked at state training facility. This allows us to anticipate and offer CEU's or renewal classes.

How the Grantee is incorporating monitoring feedback?

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- Programmatic Monitoring is conducted by the State Program Manager. This allows him to receive the results of the technical visits and then provide a complete overview to local management at the conclusion of the annual monitoring process. Likewise it provides the sub-grantee direct access to the State Program Manager to give feedback.
- Data and comments from monitoring are used in development of the State Training Plan.

What is the Grantee doing to be on a path of continuous improvement?

- The Training Needs Analysis process is really designed to maintain the program on a path of improvement since it encompasses so many facets of the program.
- PY 19 Needs Analysis revealed the biggest program need was Professional Development. By investing time in training and developing our local leaders it will facilitate growth and improvement program wide. Utah WAP realized that we were spending more time and energy managing the agency in things the local leaders should be doing but, were not equipped to do that.
- Collecting more data to better influence our decisions on the program

How is the Grantee tracking Subgrantee performance reviews?

The monitoring process creates a document that summarizes strengths, improvements and weaknesses in 8 functional areas.

- Client Intake
- Client Files
- Energy Audits
- Field Work
- Purchasing & Inventory
- Final Inspections
- Program Operations
- Administrative Functions

All monitoring documents are centrally maintained on a common drive electronically which all team members can access. The pre-monitoring includes review of previous year's monitoring to follow up on any items and become familiar with any trends or past issues. All items in the monitoring process are tracked by the State Program Manager and reviewed as part of the monthly staff meeting. This includes any Findings or open Areas of Concerns that are maintained of shared tracking log. We have also restructured some monitoring tools to incorporate 3 year trending to better view the results.

If a Subgrantee has failed final inspections, how are things improving?

- There has been a revision of the QCI/Production monitoring tool to incorporate a 3 year trending methodology so we can better measure progress over time.
- Field Supervisors must sign off on corrections items identified during a QCI. This ensures the information is getting back to the field workers.
- In PY 19 sub-grantees were required to implement a system to track failed items from inspections which the State WAP staff will review during technical monitoring. It is a pre-contacting deliverable for PY 20. This is a focus item for PY 19 during monitoring.

If a Subgrantee has management findings or concerns cited as a result of Grantee monitoring or audit proceedings, how are things improving?

Utah currently has no management findings. Utah has found that all of the sub-grantees have taken very pro-active approaches to addressing any monitoring/audit results.

What are the management mechanisms being put in place this year to affect improvement?

- Utah finds the current systems in place are proving effective. Utah will continue to self evaluate annually and modify as needed.
- A PY 20 goal is to continue the Professional Development of the program. We have seen encouraging initial indications of this being effective.
- Utah WAP would like to request the DOE support to allow a mechanism for the State WAP office to view the progress and results of its' sub-grantee employees who use the new NREL WAP Admin Training website. It would be our desire to incorporate this new tool but find it challenging since we have no way to view progress, strengths, and weaknesses this tool provides.

Are there technical and financial systems that have been reviewed?

- Utah conducts 2 types of technical monitoring, Production/QCI & Energy Auditing.

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- Financial systems are now being monitored by the DWS Fisical Grant Managers. They also may be subject to a additional monitoring from DWS Internal Audit Team.
- Desktop monitoring is done as part of any request for funds.
- Each sub-grantee does an annual single audit that is reviewed by DWS Interl Audit and the Risk Assessment Team.

What has the Grantee done in the area of market analysis to ensure particular measures are being costed accurately?

Market analysis is broken down in to 3 areas:

1. Fuel Costs

State staff conducts an annual survey of fuel providers across the state and compiling this data for distribution and implementation to the audit tool fuel library.

2. Material Costs

Material costs are reviewed by the sub-grantee and updated in the audit tool as the purchase price changes. This process and data is verified as part of annual monitoring.

3. Labor Costs

Labor costs are updated annually with the State in the Wx Operations Plan the subgrantee submits. Checks are also made on this data during monitoring ensuring that it is being updated in the audit tool.

Attached Documents

Utah WAP Training Plan PY 20 contains examples of metioned data

V.7 Health and Safety

The Utah WAP Health & Safety Plan is designed to ensure reasonable precautions are taken to protect clients and personnel. Contained in this policy are guidelines for identifying Health & Safety (H&S) issue(s), and determining whether issue(s) should be remedied, referred, deferred, or result in partial weatherization.

When an agency identifies an issue that is not specifically addressed in policy they consult with the State WAP staff to determine the best course of action.

Based off PY 19 data we are setting the **H&S funding for all funding sources at 14.9%** of Program Operations.

The statewide average H&S Cost per Unit (**including all funding sources**) should not exceed \$1158 for the program year. (14.9% of the DOE max ACPU of \$7776)**The DOE portion of that H&S ACPU would equate to 39.1% or \$452**, creating the basis for the H&S budget total of \$214,187

H&S is supplemented by non-DOE funds as well which is how these numbers were derived. Utah uses this number to help define Minor and Major Repair. A Major Repair is any measure that exceeds H&S ACPU and need state approval with the exception of water heater replacement.

Utah does not permit the use of Health & Safety funds to be used in air conditioner replacement. This activity is funded using LIHEAP Crisis funding. Target Client Households (households that contain elderly, disabled, or pre-school age children) are the only homes eligible.

Prior to any weatherization activities being implemented, subgrantees are required to inspect dwellings for the presence of health and safety issues, conduct applicable required testing, and to inform the client of any issues that are identified. This is to identify any issues up front that might impede weatherization.

If issues such as work outside of scope of the program, health & safety concerns which are not permissible to correct, or other items that would prevent weatherization work the job is deferred to prevent partial weatherization, which is not allowed. Work may resume when the cause for deferral has been met by the client. Any work conducted on the home that is in deferral status would be disallowed.

Part of the Health & Safety Inspection is identifying occupant health concerns and attempting to identify & mitigate the impacts of

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weatherization activities on those concerns. Some of this information will be collected during the application process, but subgrantees are required to perform additional screening during the audit process to ensure that steps are taken to ensure that weatherization work will not worsen any occupant health issues. Health & Safety Form 1 has been created as the primary tool to collect and record this information.

The Utah WAP Health & Safety Template contains a list of issues that, when identified during the Health & Safety Testing, will result in the corresponding action. While situations might arise these items will be the typical Health & Safety measures for the program.

Compliance monitoring of RRP are included in the Production Monitoring process. The technical field monitoring staff is RRP licensed by the State of Utah Dept. Environmental Quality. H&S Plan will comply with all the requirements in WPN's 17-7.

Health & Safety document attached are:
PY 20 Utah WAP H&S Template

V.8 Program Management

V.8.1 Overview and Organization

The Utah Housing & Community Development Division (HCD) shall be responsible for the administration of the Utah Weatherization Assistance Program. It is a Division within the Department of Workforce Services (DWS) at the State of Utah. Program implementation is completed by a program manager, three monitor/trainers, and a fiscal/budget officer.

HCD operates a wide variety of programs that assist the residents of Utah including the following which align with WAP:
LIHEAP
HUD Home Program
State Housing Program (this encompasses the single family home rehab program)
CSBG
CDBG

Section D of the Utah WAP Guidelines covers that HCD operations and responsibilities. As the state administering agency, the Housing & Community Development Division shall complete the following:

1. Disseminate information and technical assistance to local participating agencies regarding the application process and requirements for the program. Provide training opportunities as needed.
2. Assist local participating agencies in implementing policies and guidelines of both the DOE and the state.
3. Assure that agencies meet reporting requirements to the state. Provide the required monthly, quarterly, semi-annual, and final reports to the DOE.
4. Prepare and submit the annual state application to the U.S. Department of Energy along with all required reports to the cognizant federal agencies.
5. Oversee production and workmanship quality through yearly monitoring of each subgrantee.
6. Provide funding reimbursement based upon achieving production goals, meeting administrative requirements, and following state and federal requirements.

An HCD Org Chart is included in the Utah WAP PY 20 Monitoring attachment.

V.8.2 Administrative Expenditure Limits

The DOE allocation including the **Administrative funds** are allocated according to the allocation formula which is attached to the SF-424 as Utah WAP Allocation.

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Administration Funds: 15% of total allocation will be allotted as administration funds. 7.5% of total allocation will be allotted to the state for administrative purposes, and 7.5% of total allocation will be allotted to subgrantees for administrative purposes.

The state has determined that the 5 sub-grantees whose total grant is less than \$350,000 will require additional administrative funds in order to effectively implement the requirements as established by DOE, (per 10 CFR 440.18(d) an additional 5% of the subgrantee's total grant is allotted as administration funds for all sub-grantees whose total allocation is below the \$350,000 threshold.

Criteria for this determination is:

Pre-Award Risk Assessment rating of Low

Timely Reporting to State WAP

Prior Program Year production 80% or better (waived for PY-21 due to COVID)

As part of the DWS annual Risk Assessment process each sub-grantee must indicate their indirect rate approach for the year (FNICR, De Minimus, Cost Allocation) and this is included on the contract coversheet. Controls are in place through the contracting and payment mechanisms to ensure no over expenditure of admin funds is possible.

Attached Documents:
PY 21 DOE Allocations

V.8.3 Monitoring Activities

Utah WAP's monitoring will comply with the provisions in WPN 20-4, including but not limited to Programmatic, Management, and Financial Monitoring of sub-grantees.

Annual Monitoring of all sub-grantees is conducted throughout the year. This is an on-site visit to each of the sub-grantees. The monitoring is divided into 4 functional areas: Programmatic, Production, Energy Auditing, Financial categories.

There is a 5% - 10% sample size of contracted completions on all monitoring dependent on if the agency has an Independent QCI or Auditor/QCI. The sample does not include in progress units that are also monitored. This is a comprehensive process that looks at:

Programmatic Monitoring

- Sub-grantee Review
- Administrative Operations
- Equipment/Inventory/Materials
- Client Eligibility
- Weatherization Rental Agreements
- Feedback and Reporting
- Health & Safety expenditures
- Program Documentation (Client File Review, Work Orders, etc.)
- Inventory
- Payroll/Personnel
- Procurement
- Records Retention

QCI/Production Monitoring

- Energy Audit
- Audit Testing & Diagnostics
- Health & Safety Inspection
- Work Order
- Weatherization field work

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- Lead Safe Weatherization
- QCI Inspection
- QCI Certification Validation
- Agency Training
- Additional agency qualifications

Energy Auditing Monitoring

- Field Data collection
- Wx Strategy
- Audit tool input
- Audit tool database settings & management
- Diagnostic testing
- Lead Testing
- SHPO
- H&S Inspections
- Work Orders
- Auditor Certification Validation

Financial Monitoring

Financial Monitoring is done at 2 levels. A DWS Fiscal Grant Manager assigned to WAP does a Financial Monitoring that meets both DOE requirements and DWS policy. As required by law the single audits are submitted to the State Auditor who reviews them. Likewise DWS Internal Audit and Risk Assessment teams that review the single audits and conduct their own independent audits and monitoring of the sub-grantees. These activities cover the management and accounting systems along with their participation in the per-award risk assessments.

The monitoring process consists of:

- Pre-Monitoring - State staff reviews previous monitoring documents, send Entrance Interview Question to sub-grantee. Sample selection and preliminary file review.
- On Site Visit - State conducts site visit to agency and client homes both completions and In Progress. Uses monitoring instruments to check program areas and record data. The On Site Visit is concluded with Exit Interviews with the Program Manager. Exit Interview with the Agency Executive Directors are conducted as part of the Programmatic Monitoring which takes place after Auditing and Production Monitoring.
- Post Monitoring - Compiles & reviews information. Sends a monitoring letter with results and other information to the sub-grantee. This is completed within 30 days of the Exit Interview. Open items are tracked and followed up by the monitor.
- Periodic Monitoring - When there is an identified need, such as a subgrantee with significant or systemic deficiencies additional monitoring visits may be conducted outside of the scheduled Annual Monitoring Visit.

Tracking & Analysis: All open monitoring issues (Finding or Areas of Concern) are tracked by the State until closed. Comments on strengthening the program are tracked in a Monitoring Summary and used in the next monitoring as a gauge of progress. Utah has implemented a central tracking system of monitoring comments. The goal is to be able to see multiple years of comments to better identify trends. This data is mined as part of the Training Needs Analysis as well.

Non-Compliance:

The State WAP Guidelines cover the procedures for dealing with sub-grantee non-compliance When an issue is identified (Finding or Area of Concern) a Corrective Action Plan (CAP) will be implemented. In most cases this is part of the monitoring letter. In extreme cases it can be a separate document. This will contain a description of the issue, the timeline for resolution of the item, training necessary to address the matter, and actions required by all parties. It further details the punitive actions HCD may take against the sub-grantee:

- Disallowed Cost
- Disallowed Job
- Letter of Non-Compliance (A formal warning prior to the commencement of terminations)
- Agency Termination

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Utah WAP updated its policy on non-compliance and termination following the change of sub-grantee in PY 18 to clarify the steps in the process and citing 2 CFR 200 as appropriate.

A Monitoring Schedule is included in the Utah WAP Monitoring Documents attachment with the projected dates the agencies will be visited. Financial Monitoring takes place in Q3 of the PY.

Budgeting: Monitoring funds for PY21 from DOE are included in the T&TA allocation retained at by the State. Monitoring expenses are expected to represent between 58% - 62% of these funds. This will cover partial wages and fringe for 4 FTE. Non-DOE funds will be used to cover the balance of the monitoring. Travel expenses for monitoring should be \$20,745. (30 trips @ \$692 a trip) See Budget Justification for more detail.

Staff:

Programmatic Monitoring

Brad Carpenter (Certified Public Manager)

QCI/Production Monitoring

Wade Thompson (QCI & Auditor certified, BPI Proctor)

Matthew Dalton (QCI & Auditor certified, BPI Proctor)

Energy Auditing Monitoring

Matt Turner (QCI & Auditor certified, BPI Proctor)

Fiscal Grant Manager

Kaylee Beck

Monitoring Documents Attached:

Utah WAP PY 21 Monitoring

V.8.4 Training and Technical Assistance Approach and Activities

Training Plan Feedback & Grantee Provided Training

Our feedback from subgrantee monitoring and data from reporting continues to be our key sources for establishing our training priorities. Utah WAP conducts an extensive Training Needs Analysis each year to both measure progress and identify weaknesses. Our Training Needs Assessment is not done until the end of Program Year so we have all the needed data. Areas identified for PY 21 so far are:

- Energy modeling software training & transition to (WA 10)
- Building science
- Utah Field Guide
- Utah WAP Badging System
- Combustion appliance safety and analysis

Utah WAP will conduct an anonymous online survey in our PY 20 Q4 to collect network feedback. This data will be rolled into the Training Needs Analysis.

Compliance with mandatory training has never been an issue in the program's history. If needed the State would remove T&TA funding for lack of attendance.

Comprehensive Training

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The current year update begins on page 6 of the Utah WAP Training Plan attached.

Utah continues to feel it is still vital to their program to utilize a "needs based approach" to training. Our training approach has been thoroughly outlined in the attached Utah WAP Training Plan PY 21 document. In PY 20 Utah started IREC accreditations in the remaining 3 JTA. We are in the review process and expect to obtain final accreditation fall of 2021.

Utah WAP continues to review and study the results of our JTA Assessments done in PY 19. The further refinement of our training is ongoing. With such high pass rates, it led to a clearer approach to Tier 1 Comprehensive Training. The concepts of a Macro and Micro training are being implemented. (see training plan for more details) The idea of still delivering Tier 1 to the entire network while supplementing that with more detailed training to those agencies that did not reach the "Competent" score of 80%.

As reflected in the percentages of T&TA funds Utah sees a more balanced approach to the tiers of training when the state is conducting a true needs assessment. This would potentially change based upon the results of the needs analysis. Utah continues to appeal to DOE WAP to support our alternative approaches to training development. The percentage screens in this section regarding budgeting are Utah WAP's best estimate.

Maintaining Workforce Credentials

The Utah IWTC is an accredited training and testing facility. This allows Utah to actively maintain all workforce credentials. IWTC Staff tracks or monitors for all required credentials:

- IREC accredited (QCI, pending RIT/CL & EA)
- HEP certifications by BPI (Auditor and QCI)
- OSHA 10 & 30 Hour
- EPA 608
- Rocky Mountain Gas Association (RMGA)
- North American Technical Excellence (NATE)
- Lead Inspector
- Lead Renovator (RRP)

There is also monitoring and other checks that verify that local agencies are maintaining necessary licensure required by other state entities. We have also established a shared tracking system so the sub-grantees can become more engaged in the management of their staff.

Utah does not establish any licensure or certification requirements prior to hiring, understanding most of the items we desire are not industry required in this state. We do have minimum times from hire that certain requirements are met.

- OSHA 10 = 30 days
- RRP = 1 year (as applicable to employee)
- RMGA = 1 year (as applicable to employee)

In PY 20 Utah has adapted the "badge system" to our New Hire Training requirements. We have taken the 26 most relevant tasks for our housing stock and cross walked these tasks to our field guide and the SWS. The employee must demonstrate competency by completing each task or skill on at least three separate occasions (unless otherwise stated on the badge).

- Initial Completion: Task is trained by experienced agency staff that signs off that the employee was trained. Employee signs off indicating they understood the training. QCI verifies work complies with program standards.
- Second Completion: Employee preforms task which can be aided by experienced staff. QCI verifies work complies with program standards.
- Third Completion: Employee preforms task unaided. QCI verifies work complies with program standards.

It is understood there are certain tasks that cannot be performed alone. In these instances the New Hire is to be considered the "lead" worker of the task.

The Initial Completion of **each** task must be completed on all badges within the agency's probation period as established by their HR policy. The entire process must be completed within 24 months from the employee's initial hire date. Non-compliance results in the disallowance of the employee's wage & fringe to Weatherization contracts.

Industry Wide Initiative and Future Requirements

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Utah WAP continues to require their Energy Auditors to be BPI certified. Utah has now added requirements similar to the QCI for people filling this role in the state to ensure their work meets program standards.

Utah is looking to focus on getting better at what we are already doing. Continued feedback from the network is a feeling of working in a state of constant change. The goal of changing the mindset of the program without changing the program requirements aligns with this goal.

Our most important initiative at the state level will be to monitor and collect data that we can roll in to our needs analysis.

Utah WAP was very enthusiastic about the new NREL Program Admin training. We would like to incorporate this training as part of our Professional Development training but find the lack of a “supervisor” role that allows the grantee to track sub-grantee usage and results a missed opportunity to effectively use this tool. It is Utah’s request that they instruct NREL to update this feature into the next version or make to SCORM packets available to us so we can load them on our LMS.

Evaluation and Comparison of Effectiveness

The true test of effectiveness of training is measuring the results afterwards. Since Utah is using a needs-based approach we are trying to make data based decisions. The positive effect of that is we can analyze the effectiveness of our training by continued analysis. Beginning on pages 7 of the Utah WAP Training Plan PY 21 is the preliminary PY 20 data integrated into our historical data. The 5 charts provided are only a fraction of the information we are collecting and evaluating.

Grantee Assessment

As noted at the top of this section we are regularly monitored by other state entities. In addition to the State Auditor's Office and DWS Internal Audit we are also monitored annually by the LIHEAP office. We feel the feedback from these external audits provides good insight from a different perspective. Monitoring results from these external audits are incorporated to the planning process.

Utah WAP underwent a desktop audit from DOE on Energy Auditing during PY 20. The feedback from this has been very valuable. It not only confirmed weaknesses we had already identified but additional areas to address. While we feel we have addressed all these items according to our submitted CAP this will also be a part of the Training Need Analysis.

Feedback is solicited from the sub-grantees by the State Program Manager at the completion of the monitoring cycle as well. This continues to lead to adjustments in the monitoring process to make it more collaborative and capitalize on the training value of the site visits. This past year we worked on making our monitoring reports easier to understand trying to give more meaningful feedback.

State staff will continue to participate in trainings such as Energy OutWest and NASCSP keeping us on a national level. Our training center participates in the Trainer’s Consortium as well.

H&S Training

H&S Plan training will continue to focus on items identified in monitoring. We will do a program wide technical training around Q2 of PY 21 that will include this component.

Client Education

In PY 20 Utah WAP collaborated with the Governor’s Office of Energy Development to develop 7 educational videos. These videos are meant to supplement the client education for our network. If the shift to technology seems more effective we will look at other areas we can attempt to convert to video as well.

Utah is continuing to look at ways to deliver the required documentation and still effect some meaningful education of the client on energy usage.

Documents Attached:

Utah WAP Training Plan PY 21

Percent of overall trainings

Comprehensive Trainings: 50.0

Specific Trainings: 50.0

Breakdown of T&TA training budget

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

(Grant Number: EE0007953, State: UT, Program Year: 2021)

Percent of budget allocated to Auditor/QCI trainings:	<input type="text" value="60.0"/>
Percent of budget allocated to Crew/Installer trainings:	<input type="text" value="25.0"/>
Percent of budget allocated to Management/Financial trainings:	<input type="text" value="15.0"/>

V.9 Energy Crisis and Disaster Plan

None.

UTAH WEATHERIZATION ASSISTANCE PROGRAM GUIDELINES

Effective Date 7-1-2021

FINANCIAL SUPPORT PROVIDED THROUGH:

US. DEPARTMENT OF ENERGY

**U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES, “LIHEAP”
PROGRAM**

STATE OF UTAH

DOMINION ENERGY

ROCKY MOUNTAIN POWER

**State of Utah
Department of Workforce Service
Housing & Community Development
1385 S State St. 4th Floor
Salt Lake City, Utah 84115
Telephone: 801-468-0134**

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SECTION A: GRANT ADMINISTRATION

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A1. USE OF FUNDS

A1.1. Application of Guidelines

- A1.1.a. This document is to serve as the administrative provisions of the State Plan for the State of Utah Weatherization Assistance Program as required under the provisions of [10 CFR 440](#). At no point in this plan may it supersede any federal regulation.
- A1.1.b. When applying the provisions of this document a specific clause shall be enforced over a general clause. When a conflict between a specific and general clause occurs the more restrictive shall be applied.
- A1.1.c. When this document is silent on a matter or other needs arise the State of Utah WAP staff shall have the sole authority to render interpretation.

A1.2. U.S. Department of Energy (DOE)

- A1.2.a. The use of Department of Energy funds shall be in accordance with U.S. Department of Energy regulations and directives. The amount of any grant funds to be expended by local agencies shall not exceed the per unit average cost as determined by DOE. This average is for Program Operations (materials, labor & Program Operations). Agencies exceeding the per unit average may have the excess costs disallowed.

- i. The current Per Unit Average is established by DOE in their annual program guidance and can be found in their Program Notice XX-1
- A1.2.b. DOE contracts will be effective on July 1 and will terminate on June 30 of the following year.
- A1.2.c. Use of these funds must either show a Savings to Investment Ratio (SIR) of 1 or greater or be under an approved Health & Safety measure.
- A1.2.d. DOE funds shall not be used for any expense related to X-ray fluorescence equipment.

A1.3. **LIHEAP Weatherization (LIHEAP)**

- A1.3.a. The use of LIHEAP funds shall be in general accordance with the U.S. Department of Energy Weatherization regulations. The Per Unit Average per home is specifically waived.
- A1.3.b. Housing and Community Development can retain no more than 5% of LIHEAP funds for administrative costs. The Housing and Community Development may retain, where necessary, not more than 10% of LIHEAP funds for non-formula distribution to local Weatherization agencies unless specified in the Memorandum of Agreement with the Utah HEAT program.
- A1.3.c. Housing and Community Development may designate an amount of the LIHEAP allocation for Training & Technical Assistance costs.
 - i. The amount cannot exceed the percent of the regular DOE T&TA percentage; which is a percentage of the DOE total allocation.
 - ii. The current DOE Program Year will be used to determine the percentage when the initial LIHEAP allocation is received. Any amendment to the initial LIHEAP allocation will follow that same percentage regardless of the year the amendment is issued.
 - iii. Housing and Community Development will retain a percentage of LIHEAP T&TA funds necessary to allow it to operate the program effectively. Additional LIHEAP T&TA funds will be allocated.
- A1.3.d. LIHEAP Weatherization funds may be used for:
 - i. General weatherization activities covered in Section *B8 Authorized Weatherization Measures* under DOE rules unless specified otherwise.
 - ii. Furnace crisis repairs *

- iii. Appliance replacement; regardless of whether or not the house has received prior Weatherization.
- iv. Fuel Conversions *
- v. Knob & Tube mitigation
- vi. Side by Side refrigerator replacement with an audited SIR of 1 or greater.
- vii. * Note: Items [A1.3.d.ii.](#) and [A1.3.d.iv.](#) Shall be funded from LIHEAP Crisis if those funds are available prior to the use of LIHEAP Weatherization funds

A1.3.e. Rental Units

- i. Multi-Family buildings require all units to be income qualified. This is different than regular DOE Rules for multi-family.
- ii. In cases where the building is qualified under DOE rules only those units that are LIHEAP qualified can have funds expended on approved measures.
- iii. Buildings on the HUD Approved list still must have each client LIHEAP qualified to use LIHEAP funds.

A1.4. LIHEAP Energy Crisis

- A1.4.a. LIHEAP Energy Crisis funds are not regular LIHEAP Weatherization funds and thus follows a separate set of rules and regulations.
- A1.4.b. LIHEAP eligible clients can receive LIHEAP Energy Crisis assistance as the need is documented.
- A1.4.c. Local agencies must maintain LIHEAP Energy Crisis files for LIHEAP Energy Crisis clients who do not have a current Weatherization application.
 - i. This file must contain all necessary information required by this program. See [SECTION C: Application Process](#) for Client File requirements.
 - ii. The local agency may maintain the Crisis Information in the Weatherization Client file when it so chooses.
- A1.4.d. For LIHEAP Energy Crisis only projects, a Crisis BWR needs to be submitted using WebGrants. When no materials are used Agency must enter \$.01. A brief explanation of what was done shall always be entered as well.
- A1.4.e. LIHEAP Energy Crisis funds should be used primarily for the repair/replacement of heating/cooling systems.

- i. During the winter this means a household is currently in or is being threatened with a safety or no-heat situation.
 - ii. Other combustion appliances may be considered on a case by case basis with approval of the State WAP Staff.
- A1.4.f. Because of the potential problems presented with these crisis situations the provisions of Section *C1.10 Weatherization Priority Rating System* can be applied. The local agency may move the crisis client up the list and immediately weatherize the unit after auditing.
- A1.4.g. LIHEAP Energy Crisis funds may be used on the Navajo Reservation for roof replacement. When necessary the evaporative cooler may be removed from the roof and replaced with a thru window unit as an *B9.5.c IRM—Incidental Repair Measure*.
- A1.4.h. In some cases damaged or missing building components such as doors, windows, major holes in the building shell or homes with knob-and-tube wiring in the attic may constitute an energy crisis and can be addressed with Energy Crisis funds.
- A1.4.i. Crisis funds may be used for fuel switching with a calculated SIR. Fuel switching to a non-metered fuel is not permitted without written permission from HCD.
- A1.4.j. Crisis funds may be used on the High Energy Users Program (HEP) covered in Section *B11.6 High Energy User Program (HEP)*
- A1.4.k. Again, LIHEAP Energy Crisis funds are not Weatherization funds and cannot be used for standard Weatherization measures except as documented in special or unusual situations or as allowed in Section *B8 Authorized Weatherization Measures*.

A1.5. State of Utah

- A1.5.a. State of Utah general funds appropriated for weatherization will be divided equally between the local agencies. State WAP will retain not more than 10% for administration of the program. The Administration, Program Operations and Health & Safety budget lines will be the only lines in these awards. The Administration and Health & Safety lines will be calculated using the same methodology as LIHEAP Weatherization funds.

- A1.5.b. In general state funds will be used in the same way as LIHEAP Weatherization funds. There may be situation where State WAP approval may allow alternative uses that are in keeping with the intent of the program but outside the general scope of the federal awards. These situations will be clearly documented and should only be considered when it facilitates execution of the program under the terms of the federal awards.

A1.6. **Dominion Energy**

- A1.6.a. 100% of all Dominion Energy funds are passed through to local Weatherization agencies Use of Dominion Energy funding is restricted to clients with a Dominion Energy account who qualify for the Weatherization program.
- A1.6.b. The use of Dominion Energy funds shall be restricted to natural gas appliance measures below:
- i. Furnace testing & tune-up
 - ii. Furnace repair
 - iii. Furnace replacement.
 - iv. Natural gas fired water heater replacement as directed in [B8.25](#).
 - v. Other combustion appliances may be considered on a case by case basis with approval of the State WAP Staff.
 - vi. A minimum of one half of all Dominion Energy funds are to be used for the replacement of existing standard efficiency natural gas furnaces to current WAP standards of 90%+ efficient.
- A1.6.c. Dominion Energy funds may not be used to establish new gas service to a client.

A1.7. **Dominion Energy Rebates**

- A1.7.a. Rebates are recaptured costs and shall be treated as such.
- A1.7.b. To be eligible for Dominion Energy Rebates sub-grantees must become [Qualified Contractor](#) under the current Dominion Energy Thermwise Program as they advertise.

- A1.7.c. Eligible rebates shall be submitted to the designated representative of Dominion Energy. The current point of contact is:
- i. Brian Camp, Thermwise Marketing Representative, 801-324-5118
brian.camp@Dominion Energy.com
 - ii. Requests for Dominion Energy Rebates will be submitted on Attachment 5 Dominion Energy Rebate Form.
 - iii. When submitting for these rebates the agency should implement measures to track their submissions and receipts because they will be a monitored item.
- A1.7.d. Dominion Energy rebates are to be deposited back in to the sub-grantee's program. These funds need to be accounted back to the program funding source that generated the rebate. (i.e. DOE or LIHEAP) in a manner that clearly shows full accountability of funds.
- A1.7.e. Agencies may retain up to 10% of the rebate funds for Administration purposes.
- A1.7.f. Materials and measures purchased with Dominion Energy funds, such as those described in Section [A1.6.b](#), are not eligible for rebates under this program.

A1.8. **Rocky Mountain Power (RMP)**

- A1.8.a. RMP is a reimbursement contract. Other program funds will need to be expended prior to submission for reimbursement. The rules for those funds must be met for expenditure.
- A1.8.b. Any eligible Weatherization client that has a RMP Account may have qualifying measures considered for reimbursement.
- A1.8.c. Rocky Mountain Power funds will be used in accordance with their contract issued to the Housing and Community Development for all electric whole house Weatherization and electric base load reduction measures.
- A1.8.d. 100% of all Rocky Mountain Power funds are passed through to local Weatherization agencies.
- A1.8.e. RMP reimbursements are to be deposited back in to the sub-grantee's program. These funds need to be accounted back to the program funding source that generated the rebate. (i.e. DOE or LIHEAP) in a manner that clearly shows full accountability of funds.

- A1.8.f. Rocky Mountain Power contracts are reimbursement only contracts and require a 50% match from other funding sources such as DOE or LIHEAP.
- A1.8.g. CFL's which will be paid for 100% by Rocky Mountain Power.

A1.9. Supplanting of Funds

- A1.9.a. Financial assistance for the Weatherization grants program will be used to supplement, and not supplant, state, local, or other funds. Thus, procedures are necessary to ensure that federal assistance is used by the Division of Housing and its sub-grantees to develop and implement programs that could not otherwise be undertaken.
- A1.9.b. Federal assistance is not to be used to subsidize programs that the Division of Housing and its sub-grantees are already able to finance with monies from local and state sources.

A2. CONTRACTS & BUDGET CATEGORIES

A2.1. General

- A2.1.a. The Weatherization program should be operated at the sub-grantee level in the most cost-effective manner, ensuring that funds directly impact on the low-income and are not used for excessive administrative overhead. The Division of Housing, with guidance from the DOE, shall determine whether an agency's costs are reasonable. The following guidelines from the U.S. Department of Energy should be referenced in preparing contract budgets.
- A2.1.b. HCD has elected to utilize separate budget categories for Financial Audits and Liability Insurance. DOE allows grantees to make this election so that costs for Financial Audits and Liability insurance are not accounted for under the budget category Program Operations, and subsequently are not included when calculating the per-unit average. If DOE or LIHEAP funding is used to pay for Financial Audits or Liability insurance, these expenses should be accounted for in their respective budget categories.
- A2.1.c. When requesting funds from a new contract the existing budget line must be exhausted on the current contract. This request is still subject to State WAP Manager approval to prevent scalping of the new contract.

- A2.1.d. Extensions may be requested, in writing, on LIHEAP and Dominion Energy contracts only. It is the discretion of the WAP Manager to grant this extension within limits of the federal rules. It is further the discretion of the WAP Manager to reduce the future allocation of that funding source when that extension is granted.

A2.2. **Administrative Costs**

- A2.2.a. Administrative funding is determined by the amount of grant funds received by the sub-grantee.
- i. Not more than 7.5% of the allocated funds may be used for Administrative Costs.
 - ii. Sub-grantees receiving less than \$350,000 in DOE funds may be allowed to use up to 12.5% of their grant funds for administrative purposes.
- A2.2.b. Deleted and reserved.
- A2.2.c. Additional amounts may be allowable providing the grantee uses less than their five percent share of the administrative allowance.
- A2.2.d. While the Weatherization Assistance for Low-Income Persons Program Regulations, 10 CFR Part 440, do not clearly define what is to be included in the administrative cost category, it could be understood that certain expenditures incurred in carrying out the duties of this program, by exclusion from other categories, would properly be charged as administrative costs. Examples include:
- i. Telephone (For field crew cellular phones, see 2b Program Operations Costs)
 - ii. Postage
 - iii. Lease of copying machines
 - iv. Office supplies
 - v. Monthly utilities
 - vi. Building space rented or leased (to be treated as a percentage of total building overhead based on the percentage of space used for the Weatherization Assistance Program). This does not include storage space for materials or field staff.
 - vii. Space costs, excluding field staff space, must be reasonable and may be required to be competitive with other similar and commercially available properties depending on property ownership

viii. Management/administrative consultants

ix. Legal advertisements

x. Legal costs excluding those incurred in taking legal action against grantee

xi. Travel expenses for administrative and clerical staff salaries (based on the percentage of time devoted to the management of the DOE Weatherization Assistance Program)

A2.2.e. Administrative personnel, necessary for the management of the Weatherization Assistance Program such as directors, secretaries, clerks, receptionists, applicant certifiers, accountants, etc., are essentially administrative positions. Their salaries and fringe would be charged entirely to administration and be based upon a “time and activity” or other evaluation.

A2.2.f. Portions of administrative personnel costs may be charged to Program Operations if these duties are directly related to the installation of materials on eligible houses or for the direct supervision of field staff. Indirect costs are administrative costs. However, any indirect rate must be negotiated with and approved by the appropriate cognizant federal agency. *The aggregate of administrative costs, including indirect costs, must not exceed the total amount of the administration grant allowed by contract and as allowed by federal regulations, whichever is less.* A copy of the indirect cost plan and rate authorization by the cognizant agency must be submitted to the Division of Housing with the new-year budget sheets prior to the beginning of each program year.

i. Administrative funds may be used for any qualifying Program Operations expense.

A2.3. **Program Operations Costs**

A2.3.a. Program Operations is the major budget category that is the sum of several different budget line items:

- Program Support
- Health & Safety
- Liability Insurance
- Financial Audit

A2.3.b. Program Operation costs are defined in [10 CFR Part 440.18-19](#).

A2.3.c. Program Support allowable expenditures include the costs that are the “cost of doing business” and those things directly related to physically installing the materials on homes. These costs can be divided into six areas:

i. Labor

- Wages paid to training participants and public service employment workers pursuant to other state and federal training programs
- Payments to employ on-site labor or engage contractors to install materials
- Weatherization Coordinator salaries and direct supervision of field crews
- Attendance at coordinator meetings, workshops, conferences, etc.
- Accounting clerks or other staff who spend a portion of their time on inventory may charge that time to Program Operations.

ii. Transportation

- Transporting materials, after the initial delivery has been made, to either a storage site or to the job site
- Transporting workers to and from the job site
- Purchase of vehicles
- Vehicle insurance
- Repair and maintenance of vehicles
- Mileage reimbursement, if privately owned vehicles are used to and from the job site. Travel authorization and reimbursement procedures must be established to ensure that all costs are properly documented. Local agencies that do not have specific policies for in-state and out-of-state travel will use the State of Utah travel policies as a default. *See Attachment 33.*
- Meals and lodging costs for supervisors and crews who remain at the job site overnight.

iii. Tools and Equipment

- Costs to purchase, maintain, and repair tools and equipment necessary to weatherize a home, such as:
- Protective equipment for crewmembers and supervisors. This includes goggles, hard hats, gloves, dust masks, and tool belts
- First aid kits and fire extinguishers for Weatherization vehicles
- Tables and work benches
- Ladders and scaffolding assemblies

- Construction tools and equipment, including hammers, saws, staple guns, tapes, knives, tin snips, screw drivers, chisels, rasps, files, planes, glass cutters, putty knives, wrenches, pliers, miters, drills, insulation blowing machines, caulking guns, saw horses, jig sets, extension cords and work lights, levels, tool boxes, etc.
- Cellular phone costs for field staff where appropriate

iv. Supervision

- On-site supervision costs including the wages and fringe benefits of crews, crew chiefs, field supervisors and program coordinator
- Off-site supervision of costs of crews, inspectors, energy auditors, quality control persons, or warehouse personnel by the program coordinator & others

v. Other

- Materials inventory storage
- Field staff office space
- Computer costs for field staff for materials inventory, audits, etc.
- Client Education

vi. Materials

- Materials is a sub-set of the Program Operations category
- Material expenditures are only applied to materials left on the job. Expendable items such as brushes, rubber gloves, dust masks etc are Program: Tools & Equipment Costs
- Materials ordered and not installed on the completed unit will be carried as inventory
- The costs associated with the handling, storage, transportation and delivery of materials, procurement, inventory control and tracking. may also be allocated to material costs for purposes of calculating the average percentage of additional costs

A2.4. Training and Technical Assistance Costs

A2.4.a. T&TA is a DOE & LIHEAP funding category.

A2.4.b. Meals, lodging and other travel costs of agency staff attending workshops, conferences, and quarterly meetings should be charged under the budget category "Training and Technical Assistance" (T&TA).

- A2.4.c. Costs associated with client education may be charged to T&TA.
- A2.4.d. All T&TA travel will be on an advance/reimbursement basis from the State of Utah Division of Housing.
- A2.4.e. Wages during training events can be charged to Program Operations.
- A2.4.f. T&TA funds may be used for any qualifying Program Operations expense except, paid time off, like annual leave or sick leave.
- A2.4.g. T&TA funds may be used to train contractors.
 - i. In making the determination to pay for contractor training, local agencies should secure a written and signed retention agreement with the contractor in exchange for the training. The contract agreement should stipulate that contractors will work in the program, at a minimum, for a specific amount of time, or complete a specific number of projects, and should align with the cost of the T&TA provided.
 - ii. Contractors who are not compensated for their time, travel, tuition, etc. or attend training that has no associated cost to the agency are exempt from this requirement.
- A2.4.h. Out of State Travel must be approved by the State WAP prior to travel taking place.
- A2.4.i. DOE Program Notice 15-4 has defined 2 tiers of training:
 - i. TIER 1 TRAINING: Comprehensive, occupation-specific training which follows a curriculum aligned with the JTA for that occupation. Tier 1 training must be administered by, or in cooperation with, a training program that is accredited by a DOE-approved accreditation organization for the JTA being taught.
 - ii. TIER 2 TRAINING: Single-issue, short-term, training to address acute deficiencies in the field such as dense packing, crawlspace, ASHRAE, etc. Conference trainings are included in this category.
- A2.4.j. The State WAP will prepare annually a State WAP Training Plan which will contain guidance on the areas that will be the focus of State training for the ensuing program year. Additional sub-grantee specific guidance will be included in documents provided as part of the Production Monitoring. It is expected that the majority of sub-grantee T&TA funds be expended on achieving those training goals outlined in those documents.

A2.5. **Interest Income**

- A2.5.a. Interest income is allowed with the following considerations:

[SECTION A:](#)Funding
[SECTION D:](#)State

[SECTION B:](#)Agency & Program
[SECTION E:](#)H&S

[SECTION C:](#)Application
[Table of Contents](#)

- i. The DOE Inspector General and the General Accounting Office have stated that grantees (including state and local agencies) should not have excess cash on hand.
- ii. The purpose of advance payments on Weatherization contracts is to provide working capital that is necessary to cover the agency's estimated disbursement need for the initial program start-up period. Thereafter, the agency would be reimbursed for the amount of actual cash disbursements.
- iii. The Division of Housing is responsible for monitoring monthly expenditure reports to ensure that the local Weatherization agency's requests for funds are timed to be as close as is administratively feasible to the actual immediate cash needs of the program.
- iv. An interest-bearing checking account may be used in the fiscal management of the DOE program.
- v. Any interest earned, not to exceed \$100, from DOE funds will be retained by the agency and expended in accordance with the DOE Weatherization Assistance Program Regulations, 10 CFR 600.221(h)(2)(i), and only be used for Administrative purposes.
- vi. The amount of interest earned and the use of the accrued interest will be accounted for separately and must be reported to the Division of Housing on the monthly report form. Use of interest earned is to be summarized in the comments section of the monthly report.

A2.6. Liability Insurance

- A2.6.a. Each local Weatherization agency must obtain a general comprehensive liability insurance policy for Weatherization activities. This can be a policy exclusively for Weatherization or a policy shared proportionately by the entire agency.
- A2.6.b. The policy limits must be at least \$2,000,000 commercial general liability/\$1,000,000 commercial automobile liability.
- A2.6.c. Liability insurance is a DOE & LIHEAP budget category.
- A2.6.d. Insurance requirements for utility programs could be higher. A complete, current copy of this liability insurance policy is to be included with the Annual *Weatherization Operations Plan* (see Section *B1.2*) due July 1st of each year.
- A2.6.e. DOE has determined Pollution Occurrence Liability insurance (lead based paint liability insurance) is no longer mandatory. It will be up to the contracting agency to determine if coverage is prudent.

A2.7. CPA Audits

- A2.7.a. A single audit is required is required for each local Weatherization agency on a yearly basis.
- A2.7.b. A copy of the single audit must be submitted to State of Utah Auditor’s Office (website) within six months after the close of the agency fiscal year.
- A2.7.c. Yearly CPA audit expenses, including those required under the Single Audit Act, are either a DOE or LIHEAP budget category.
- A2.7.d. Agencies may utilize the “financial audit” line item for these costs.

A2.8. Zero & Reduced Draws

- A2.8.a. When necessary an agency may need to submit a Zero or Reduced draw. This Request For Funds (RFF) is submitted through Webgrants like a regular request. When this type of RFF is submitted, because of disallowed costs or jobs, sporting documentation for the disallowed expenses needs to be provided showing where those expenses were paid for by the agency. Reduced draws need to provide explanation of why the request is less than the submitted expenses. The agency should always be on contact with Utah WAP prior to submitting.

A2.9. Health and Safety

- A2.9.a. Health and Safety is a separate budget line item.
- A2.9.b. Health and Safety is a materials and labor costs and will not be calculated into the per unit average, like regular materials. They are to be reported under Health & Safety.
- A2.9.c. The Health & Safety budget and average per unit expenditure limit using DOE & LIHEAP funds is established in [Section E2.1](#).
- A2.9.d. Costs associated with Client Education of approved Health & Safety measures can be charged to these funds.
- A2.9.e. A Health & Safety Survey will be circulated to all Agencies on an annual basis to establish the costs and frequency of measures installed. At that time Agencies will be allowed to request reallocation of excess Health & Safety funds to Program Operations.

- A2.9.f. Paid time off, such as Annual or Sick leave are not allowable expenses to the H&S budget line.

A2.10. Contracts and Amendments

- A2.10.a. A copy of the contract form and amendment page(s) to be used for Utah WAP contracts with agencies can be found in the WebGrants grant management website. The Division of Housing may amend and change the contract form when necessary.
- A2.10.b. The contract form, amendment page, and all clauses therein shall apply as required to DOE, LIHEAP, Dominion Energy, Rocky Mountain Power and other funds.
- A2.10.c. Upon signature and execution of the contract form, the respective sub-grantee will be held liable for any breaches of the contract agreement made by the local Weatherization agency. Breach of contract is sufficient grounds for termination of the contract.
- A2.10.d. The Division of Housing will determine sub-grantees conformity to the contract clauses during the course of the annual monitoring activities.

A2.11. Advances on DOE & LIHEAP contracts

- A2.11.a. All contracts will be on a reimbursement basis only.
- A2.11.b. Agencies are not authorized to request an advance or have cash-on-hand that will exceed the agency's needs for the Weatherization program.
- i. For DOE Contracts agencies are not to have cash-on-hand that will exceed (3) three days cash needs.
 - ii. For LIHEAP Contracts agencies are not to have cash-on-hand that will exceed (30) thirty days cash needs
- A2.11.c. Advances must be based upon the overall cash needs of the program for a specific period of time and not necessarily as a straight percentage of one funding source or another.
- A2.11.d. One single advance may be given at the start of the DOE contract to act as working capital until a reimbursement for prior expenses is received.

- A2.11.e. Subsequent requests for funds should only be for reimbursements of actual expenses unless unforeseen circumstances arise that require an adjustment to the amount of cash-on-hand.
- A2.11.f. Any interest income received from advances and cash-on-hand for any federal funds contract must be reported as required in applicable OMB circular and 10CFR440.

A2.12. **Applicable Federal Cost Principles**

- A2.12.a. For the purposes of this program, the state and its local Weatherization agencies shall observe applicable federal regulations including cost principles for State and Local governments and non-profit organizations as covered in 2 CFR Subparts A & B.

A2.13. **Allowable Expenses**

- A2.13.a. A maximum Average Cost Per Unit (ACPU) , is calculated as a statewide average and will include the following costs:
- i. The cost of purchase and delivery of Weatherization materials.
 - ii. The expenses charged to the Program Operations/Program Support budget line. These costs would include:
 - The transportation of Weatherization materials, tools, equipment, and work crews to a storage site and to the site of Weatherization work
 - Maintenance, operation and insurance of vehicles used to transport Weatherization materials
 - Maintenance of tools and equipment
 - Purchase or annual lease of tools, equipment and vehicles, (any purchase of vehicles shall always be referred to the state for prior approval)
 - Employment of on-site supervisory personnel (working supervisors) and off-site supervision of inspectors, energy auditors, quality control person, or warehouse personnel
 - Labor costs, if other volunteer labor is not available
 - Storage of Weatherization materials, vehicles, tools and equipment.
 - iii. Under DOE and LIHEAP, the cost for incidental repairs. “Incidental repairs” means those repairs necessary for the effective performance or preservation of Weatherization materials.

- Such repairs include, but are not limited to, framing to repair an opening for doors or windows or repairing windows and doors that could not otherwise be caulked or weather-stripped and providing protective materials to seal materials installed under this program.
 - WAP is not a rehabilitation program and Incidental Repairs should be limited to minor repairs. While the definition of minor may vary from person to person the agency should use the guidance that if more than one-fourth of an area needs replacing or repairing, such as a roof, it is beyond the scope of an Incidental Repair. For additional guidance on permissible items see Section *B9.5.c IRM—Incidental Repair Measure*.
- iv. The cost of eliminating health and safety hazards is not calculated in the Per Unit Average. Total annual Health and Safety expenditures, statewide, shall be limited to an average not to exceed the percent of the maximum per unit average, as set in the State Plan submitted to DOE for the program year.
- v. The cost of Leadsafe Weatherization is a Health & Safety measure that is not included in the ACPU, but must be included in NEAT audit calculations.

A3. PROGRAM ALLOCATIONS

A3.1. DOE Allocation

- A3.1.a. DOE funds will be allocated using the DOE portion of Attachment 16: Allocation Formula. The DOE program year begins July 1st and ends on June 30th.
- i. \$25,000 of this funding may be set aside each year for leveraging.
 - ii. An operating base of \$30,000 will be awarded for each approved office a sub-grantee operates.
 - iii. A rural factor of 2.25 will be used

A3.2. LIHEAP Allocation

- A3.2.a. LIHEAP will be allocated using the LIHEAP portion of Attachment 16: Allocation Formula. These funds will be contracted for a three year period beginning October 1st and ending three years later on September 30th
- i. No funds will be set aside for leveraging.

- ii. LIHEAP T&TA percentage will be established from year to year. Typically it would be a percentage equal to that of the DOE allocation. In certain cases State WAP may raise or lower that based on training needs of the program in the year.
- iii. An operating base of \$30,000 will be awarded for each approved office a sub-grantee operates.
- iv. A rural factor of 2.25 will be used
- v. LIHEAP WAP Crisis funds will be allocated as part of this allocation
- vi. Up to \$150,000.00 of Crisis funds can be set aside each year of the contract for use in WAP's annual tribal land home rehabilitation project(s).

A3.3. **State of Utah**

- A3.3.a. State general funds that are appropriated for weatherization will be divided equally between each local agency. Since all other allocations are population based it is the intent for the distribution of these funds to maximize the impact to the rural portion of the state will minimizing that impact in the urban areas, offsetting some of the disparity the regular allocation method creates.

A3.4. **Dominion Energy**

- A3.4.a. Dominion Energy provides funding annually to enhance our gas appliance safety and inspection program. These funds will be allocated using the DOMINION ENERGY portion of Attachment 16: Allocation Formula
 - i. The current funding is \$750,000
 - ii. No funds will be set aside for leveraging.
 - iii. A base of \$5,000 will be awarded to each subgrantee
 - iv. Up to 10% of funds can be allocated to subgrantees as Admin

A3.5. **Rocky Mountain Power**

- A3.5.a. A Rocky Mountain Power program has been established that will provide a 50% match on measures outlined in the contract between the parties.
 - i. The contract maximum is \$225,000 annually.
 - ii. These funds are not allocated.

- iii. These funds are reimbursed on a first come first serve basis.
- iv. RMP will cover 100% of the material cost only of all LED's that are used an average of two or more hours daily. This cost will be entered in to the BWR for each job and be reimbursed as part of the monthly process.

A3.6. Allocation of Funds

A3.6.a. Weatherization funds are allocated to sub-grantees based upon the allocation formula found in Attachment 16 Allocation Formula. The objective of Utah's Allocation formula is to distribute WAP funds to its subgrantees in a manner which will allow them to serve an equal percentage of the eligible population for the geographical areas each represents.

A3.6.b. Factors considered are:

- Climate of agency service area.
- Poverty population within agency service area.
- Average weighted heating fuel costs within the agency service area.
- Density of eligible dwellings in an agency's service area
- Bases for Program Operations

A3.7. State Allocation Formula

A3.7.a. The allocation percentages for the program are based upon a formula recommended to the Housing and Community Development Division from a task force of local energy coordinators in 1986. The formula was modified in 2013 to include a density factor which helps minimize fluctuations in allocation percentages caused by variations in funding levels.

A3.7.b. Periodic changes to the allocation formula are:

- i. Annual updates for the most recent energy costs for each county.
- ii. U.S. Census data will be updated with the results of the most recent Census.
- iii. Climate data will be updated on the 20 year cycle.

A3.7.c. Average electric heating kWh base load cost will be based on 3,000 kWh monthly usage, and average natural gas heating Dth base load will be based on a 15 Dth monthly usage.

A3.8. Reallocation of Funds

- A3.8.a. The HCD may reallocate weatherization funds from one sub-grantee to another during the program year. Such reallocations shall occur from an sub-grantee (sub-grantees) where the HCD determines that uncommitted funds, low performance (actual completions versus projected completions), or the likelihood that remaining funds will not be used expeditiously.
- i. All reallocated funds must be used in accordance with any current federal regulations and the Utah Weatherization Guidelines then in effect.
 - ii. Reallocations shall be made at the discretion of the Division of Housing when the total reallocation does not exceed \$500,000 for each funding source.
 - iii. When the reallocation exceeds \$100,000 per fund, the excess will be distributed based upon the ability of other agencies to expend the reallocated funds as determined by HCD or the following formula:
 - $a \times b = c \quad c / d \times e$ = amount to be received by each agency.
 - a = percent of goal completed by an agency in the previous program year.
 - b = number of applications on file at a local agency.
 - c = total of the product (a x b).
 - d = total sum of the products (a x b) for all agencies.
 - e = total statewide Weatherization funds remaining from the previous program year.
 - iv. Carryover of funds at the end of the original contract term will be limited to 5% of the final contract grant amount. Exceptions may be made for extenuating circumstances.
 - v. Unjustified carryover funds above 5% will be re-allocated based upon existing policies.
 - vi. Any reallocation of funds will include a proportionate percentage of Program Operations, Administration and T&TA where applicable.

A4. REPORTING

A4.1. General:

- A4.1.a. To maintain accountability of funds and track current production on contracts issued by the Division of Housing sub-grantees will be required to report monthly.
- A4.1.b. Sub-grantees will report using WebGrants for all DOE, LIHEAP, Dominion Energy and Rocky Mountain Power funds requested.
- A4.1.c. Payments cannot be made on any contract without using WebGrants or the submission of these report/reimbursement forms.
- A4.1.d. Additional supporting documentation such as local agency financial documentation must also be attached to these requests.
- A4.1.e. The Building Weatherization Report (BWR) will be completed for each dwelling unit that is weatherized and must be submitted to the Housing and Community Development at the end of each month along with the monthly reports using WebGrants.
 - i. The BWR's should contain only material costs. No Program Operations or contractor labor costs should be included.
 - ii. Where work is contracted, the contractor's invoice must show a split between material costs and labor costs. The contractor should make this split.
 - iii. The BWR completion date must correspond to the month in which it was reported on the monthly report.
 - iv. Homes weatherized with metered heating utility service should have the account number on the BWR.
 - v. When Rocky Mountain Power funds are used the client account number must be listed and the BWR addendum must be completed.
- A4.1.f. When there has been Crisis Service Call work a Crisis BWR shall be completed in WebGrants. All information should be completed just as a regular BWR. When there was no materials you must enter at least \$.01 to save the form in the system.

- A4.1.g. All updated electronic reports, forms and refrigerator requests will be provided to the local agencies at the beginning of each program year. These new forms must be used at the beginning of the DOE program year (July 1 of each year). Old forms will be returned un-reimbursed.
- A4.1.h. The average cost per unit applies only to DOE funds. If funds are combined, a completion can be credited to both funding sources.
- A4.1.i. Homes completed with funds contract by HCD will be reported using WebGrants. A completed unit is defined in *A5 Weatherized Unit*. The month the unit is reported is the period which it is credited to.
- A4.1.j. Monthly reports and reimbursement requests for DOE, LIHEAP and Rocky Mountain Power and Dominion Energy funds must be received via WebGrants by the **25th of each and every month** once there has been activity on that contract.
- i. If the 25th falls on a weekend or holiday, the reports will be due at the close of business on the following business day.
 - ii. Reports and reimbursements submitted after the 25th, or reports submitted without BWR's will be returned to be added to the next month's report.
 - iii. Amended and/or correcting reports cannot be accepted after the 25th and should be submitted for the next reporting period.
 - iv. Monthly reimbursement requests will not be honored without the accompanying BWR's and LIHEAP A&B report. RFF's will be held a maximum of 2 working days to allow for submission of required reports. If the required reports are not submitted in that grace period the RFF's will be returned.
 - v. The number of BWR's must equal the number of dwelling units being claimed on the monthly report.
 - vi. If a unit is single completion regardless of what funding sources are used to complete the work. It is strongly encouraged to braid all funding sources on each job when possible.
 - vii. Total Rocky Mountain Power BWR addendum dollar amounts must equal the monthly report reimbursement request before reimbursement can be processed and forwarded on to Rocky Mountain Power for payment.
 - viii. If no homes are reported after two consecutive months, the Division reserves the right to withhold payment requests.

- ix. If the production of homes in relation to the amount of program expenses is out of balance for more than 2 months, taking into account advances received, Housing and Community Development may also reduce or withhold payment requests.
 - x. Requests for reimbursements and advances will be processed based upon the policies for the batching of payments set forth by the Division of Housing finance team.
 - xi. Payment requests must be received two days prior to the batch date in order to be processed in that payment batch.
 - xii. Program income received through the rental of Weatherization equipment, services, etc., shall be reported in the appropriate place on the monthly report.
- A4.1.k. Requests for advances or reimbursements will be made in writing to the division.
- A4.1.l. Reserved
- A4.1.m. Final reports will be due on the following dates. Final reports may be the current financials indicating that all funds for the contract were expended:
- i. DOE July 25th following the end of the contract
 - ii. LIHEAP July 25th following the end of the contract
 - iii. Dominion Energy January 25th following the end of the contract
 - iv. Rocky Mountain Power N/A
- A4.1.n. Amended BWR's: Local agencies only need to submit an amended BWR for the following reasons:
- Change in client information (Address, name, account #)
 - Change in materials installed
 - Change in funds expended

A5. WEATHERIZED UNIT

A5.1. Weatherized Unit

A “*Weatherized Unit*” is a dwelling that has the following characteristics.

- A5.1.a. Has received a Health & Safety Assessment and been documented on H&S Form #1.

- A5.1.b. Has had all requisite testing conducted and results documented.
- A5.1.c. Has received an Energy Audit by a qualified person in the program.
- A5.1.d. Has had all approved measures installed in a professional and workman like manner. This includes:
 - i. Audited measures with an SIR of 1 or higher
 - ii. Health & Safety Measures covered in [SECTION E](#).
 - iii. General Heat Waste Measures. (formerly O&M's)
 - iv. A work Order that references the Utah Field Guide and SWS's
- A5.1.e. Has received a QCI final inspection that:
 - i. Accounts for all materials credited to the job.
 - ii. Verifies that those materials have been installed according to the program's work specifications.
 - iii. Verifies that all work invoiced by contractors was done and meets the program's work specifications.
 - iv. Includes a final Worst Case Draft Test.
 - v. Includes a Post Blower Door test.
 - vi. Has a signed Attachment #9 Final Inspection Partnership Agreement
 - vii. Has a signed QCI Inspection Form
- A5.1.f. Has a complete Client File that includes all the documents indicated in [Section C4](#).
- A5.1.g. Has been reviewed by the Weatherization Coordinator/Director or designated representative for completeness and accuracy prior to submission to the State as a completion.
- A5.1.h. Is a first-time weatherization project or a qualified re-weatherization project.
- A5.1.i. Was not an amended project previously reported as a Weatherized Unit.

A5.2. Partial Weatherized Unit

A “Partial Weatherized Unit” is a dwelling that has NOT meet all of the above requirements. This might be caused by Deferral or that the client refuses services or access after the weatherization process has began. These units have had funds expended on them but cannot be reported or counted as a completion. A Partial Weatherized Unit is subject to the Prior Weatherization rules as described in [C1.9.a.i.](#)

A6. REQUESTS FOR FUNDS

Weatherization local agencies will use the WebGrants online system to request funds. The agency will typically request funds on a monthly basis. When special needs arise local agencies can work directly with the Utah WAP Manager to an agreeable cycle. It is the goal of DWS/HCD to process RFF’s in a timely manner so local agencies avoid the need to establish lines of credit or requesting of advances. The intent of this policy is to enable us to meet those goals.

A6.1. Request Requirements

Request will typically be made for prior month expenses. These requests should be submitted not later than the 25th of the month. When that date falls on a weekend or recognized holiday requests are due by the following business day. Period 13, Fiscal Year End, deadlines will be established by state Finance and communicated to the local agencies via email.

A6.1.a. Request For Funds Backup

Requests will need to be accompanied by 100% backup documentation detailing the expenditure of all funds contracted under the weatherization program regardless of funding source. This backup would typically include:

- Payroll wage and fringe data to include hours to each funding source, dollar amounts charged per person, etc.
- Indirect, allocated, or direct administrative costs charged to all funding sources. Backup would detail the allocation of said cost as well.
- Direct costs charged to the program with invoices and when applicable how that invoice was split between funding sources. Direct costs would be detailed per budget line of each contract.
- Purchasing card or credit card statements with invoices.
- Vendor or contractor invoices

A6.1.b. Qualification/Requalification For RFF Lite

- i. During the pre-award risk assessment process it will be determined if an agency can use/continue to use RFF Lite for the requirements in A6.1.a. Depending on the sub-grantee's score on either the Agency PARA or Sub-Award PARA State WAP will follow the DWS Sub-recipient Monitoring Procedure Policy. State WAP will notify the agency of their risk level and backup requirements at the beginning of the contract period.
- ii. When qualified for use of RFF Lite the backup will include:
 - Expense Summary and Reconciliation
 - A general ledger detail or transaction level indicating transaction per budget line of each contract.
 - Transaction detail providing enough information for Utah WAP to determine that the expense is reasonable and allowable under the terms of the award and the applicable federal regulations.
 - If the agencies accounting system does not provide adequate detail for items like purchasing or credit cards they will need to provide the statement and backup invoices/receipts for them.
 - (e.g. a single entry Visa with a dollar amount is not sufficient)

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B1. AGENCY SELECTION CRITERIA

All local Weatherization agencies in the state are either local government entities or community action programs. A list of current eligible and alternate local agencies along with a brief narrative of each is located in Attachment 12.

B1.1. Agency Selection Criteria

All eligible local Weatherization agencies were selected on the following basis:

- Public comment,

- Experience in weatherization
- Availability of State Certified Energy Auditors
- Trained furnace technicians,
- Past & Current weatherization performance,
- Ability to secure qualified labor,
- Experience in serving low-income households

B1.1.a. Being an eligible Weatherization agency in no way guarantees ongoing funding due to reduction of funds, program changes, lack of compliance, downsizing, etc. All program allocations are grants and do not represent an entitlement in any way.

B1.1.b. The final selection of local agencies that will receive funding and provide Weatherization services during a coming program year beginning July 1 will be determined by the following factors:

- Sufficient statewide funding levels are available that can justify the Weatherization funding of that agency.
- Technical expertise of the agency. Each agency must have staff qualified and certified to conduct energy audits, install furnaces, complete blower door tests, and implement other vital technical aspects of the program.
- Has a service area that can be justified and cannot be adequately served by another local Weatherization agency.
- Receive the support and approval of the Utah Energy Assistance Advisory Council.
- Can operate a year-round and adequately staffed program based upon projected funding levels including carryover. This includes being able to keep on staff personnel that have the critical technical expertise described above.
- Ability to serve all parts in the service area of the agency.
- Has adequate program management and financial experience needed to meet program regulation requirements.

B1.1.c When the need arises Utah WAP will select new sub-grantee agencies using a Request For Proposal. Utah WAP will work with State Purchasing to follow state purchasing rules for this process.

B1.2. Weatherization Operations Plan

All local agencies will also be required to submit an annual Weatherization Operations Plan within 30 day of the Public Hearing for the coming program year. Contracts will not be issued until the document is received. Major components will include:

- B1.2.a. A complete, current copy of the agency liability insurance policy that contains all attachments and schedules pertaining to Weatherization.
- B1.2.b. Local agency client education plan:
 - i. Identified client education personnel & duties assigned
 - ii. Client education procedures
 - iii. Client education materials used
- B1.2.c. Salary spreadsheet (*Budget Support sheet #4*) including:
 - i. Descriptions for every Full or Part-time employee paid out of weatherization funds
- B1.2.d. The agency's Weatherization Policies & Procedures manual. The Weatherization Policies & Procedures manual essentially it is a document that can be used to help implement the program in the event key personnel, for whatever reason, need to be replaced on a temporary or permanent basis. It should be available at the agency during monitoring. This manual essentially outlines:
 - i. Daily, weekly, monthly, quarterly, and annual duties of each Weatherization staff position.
 - ii. Address reporting duties and timelines
 - iii. All agency specific Weatherization functions and responsibilities
 - Inventory
 - Data entry
 - Client prioritization
 - Purchasing
 - Key leadership positions
 - iv. List of all Weatherization property valued @\$5,000 or greater
 - v. A complete client application packet.
 - vi. Local Agency Contract Signature Certification Page

vii. Copy of current Utah Contractor's License

viii. Verification of 3rd party required certifications

ix. Attachment 15 Wx Ops Plan Checklist

B1.2.e. Cost allocation plan specific to weatherization contracts. This is not to be confused with the agency's approach to indirect costs. This would detail the method for spreading program costs across all weatherization contracts. The plan shall contain:

i. The reasonable base is for each allocation

ii. The expenses subject to the allocation

iii. Distinction between weatherization funds and crisis service funds

B1.3. Agency Contractor License

All local agencies are required to be a Utah Licensed contractor in the trades which that are doing regulated work effective 1 July 2013.

B1.3.a. Agency using subcontracted labor shall comply with the provision of [B4.2 Subcontractors](#).

B2. LOCAL WEATHERIZATION AGENCY SERVICE AREAS

The state of Utah delivers the Weatherization Assistance Program to the entire state through seven Local Government Agencies and Community Action Programs. See Attachment 12.

B3. LOCAL AGENCY RESPONSIBILITIES

The local agencies are sub-grantee's of the Housing and Community Development to receive and administer the Weatherization Assistance Program funds.

B3.1. Agency Responsibilities

Agencies implement and administer the program in their areas by:

B3.1.a. Developing and submitting program proposals to the state.

B3.1.b. Coordinating energy conservation activities with local, state and federal housing administrations, social service agencies and low-income organizations.

- B3.1.c. Assisting eligible households in applying for the Weatherization Assistance Program.
- B3.1.d. Soliciting appropriate volunteer labor and alternate sources of Weatherization funding.
- B3.1.e. Initiating and coordinating Weatherization projects.
- B3.1.f. Supervising the installation of Weatherization materials.
- B3.1.g. Fulfilling reporting requirements.
- B3.1.h. Assisting Housing and Community Development in monitoring and evaluating the local programs.
- B3.1.i. Assuring an adequate number of applications are on file and households become aware of the program through advertising by radio spots, newspaper articles, flyers, inserts in utility bills, outreach and personal contact.
- B3.1.j. Before any work is started, the applicant and/or owner should understand what work will be done, the energy savings potential associated with those measures, and approve of the proposed measures.
- B3.1.k. Instructing the applicants on how to properly use and maintain any Weatherization materials that have been installed.
- B3.1.l. Instructing the applicants on how to properly use and maintain any Weatherization materials that have been installed.
- B3.1.m. Educating the applicants on other ways to conserve energy
- B3.1.n. Promptly providing the Housing and Community Development staff with all requested information.
- B3.1.o. Assuring that all Weatherization work completed meets or exceeds all applicable local/state building and energy codes.
- B3.1.p. Assuring that all work completed on site built homes more than fifty (50) years old complies with the Historic Preservation Implementation (Program Notice 10-12) Factory built homes are exempt from this requirement.

- B3.1.q. Assuring that all persons who conduct energy audits/pre-inspection are certified energy auditors and at least one on-site crew member performing furnace work is trained and “RMGA” certified. This person must be completing the work or directly supervising it.
- B3.1.r. Purchase liability insurance or bonding to cover any damage to persons or property in connection with Weatherization activities (this is required of all agencies).
- B3.1.s. Guarantee that all workers are covered by a state approved Workers Compensation insurance policy.
- B3.1.t. Maintain an updated local Weatherization specific policies and procedures manual including a description of the fiscal process, application process, local standards, inspection process, procurement procedures, office management, etc.
- B3.1.u. Comply with the provision of the State WAP Guidelines.
- B3.1.v. When outreach is required to secure applications, methods should be used that will target high-energy users.
- B3.1.w. All homes weatherized that use a metered utility for the primary heating fuel will, where possible; include the utility account number on all BWR's.
- B3.1.x. Report the resignation, transfer, or termination of key staff to the state Weatherization manager. Key staff is identified as:
- Program coordinator
 - certified energy auditors,
 - RMGA furnace technicians
 - Individuals that are the qualifier for the agency’s contractor license
- B3.1.y. Agency Executive Directors must notify the state Weatherization manager of any work stoppage of the program prior to that action taking place. This information is required so that steps can be taken to make sure that program continuity is maintained, alternative options are explored, and unnecessary disruption of services does not take place.

- B3.1.z. Local agency Executive Directors shall notify the state Weatherization program manager prior to the closing down of their local Weatherization program. This is necessary in order for the state to take measures as required by law to provide continuing Weatherization service to areas served by the agency. It will also allow steps to be taken to preserve the technical expertise and institutional knowledge of the program that exists at the agency.
- B3.1.aa. Having qualified staff that has received Lead Renovator training and certification under EPA Rule 40 CFR Part 745 and complete approved Lead-Safe Weatherization practices as required.
- B3.1.bb. Local weatherization agencies will develop “whistle-blower” policies to protect staff who report problems and issues. Local staff complaint calls to the state will be immediately referred back to the local agencies to follow existing procedures except in the most unusual and serious situations. The state reserves the right to discuss serious problems and issues with staff through cooperation with the local program coordinators, executive director and /or board chair. It is not the role of the state to get involved in local agency policy and personnel issues. Through the normal course of monitoring, state and local staff may, however, discuss general program and other technical issues. Such a discussion will not be allowed to turn into a forum for lodging complaints or grievance.
- B3.1.cc. Local agencies that do not have specific policies for in-state travel will use the State of Utah Travel Policies as a default. (Attachment 33)

B4. WEATHERIZATION LABOR

The philosophy of this program is to weatherize as many dwelling units as possible utilizing local labor and material resources to perform the work. The participating agency must consider the following labor resources for implementing the program:

B4.1. Other State or Federal Programs

B4.2. Subcontractors

Local agencies may use private contractors to install Weatherization materials. The use of contract labor is necessary in some areas where local agencies do not want to assume direct risk for Weatherization activities, the numbers of agency crews are limited, or agency crews may lack the necessary expertise. Contractors must:

- B4.2.a. Hold an active appropriate Utah Contractor's License (if the service they provide requires a license).
- B4.2.b. They must carry comprehensive general liability insurance throughout the contract period and a minimum single limit of at least \$2,000,000. Vehicle insurance must have a minimum single limit of at least \$1,000,000 for bodily injury and property damage.
- B4.2.c. Workers employed by a contractor must be covered by a state approved Workers Compensation insurance policy during the entire time they are working on Weatherization projects.
- B4.2.d. Subcontractors who are sole proprietors must either provide evidence of Workers Compensation Insurance or provide a waiver issued by an insurance agent.
- B4.2.e.* All contractors and their employees who work on Weatherization projects must attend approved Weatherization training. This training will be made available by the State WAP staff or local Weatherization agency.
- B4.2.f. Contractors are prohibited from scoping their own work. All work, Wx or Crisis must be scoped by the sub-grantee.

B4.3. Self-Help

- B4.3.a. Unsupervised self-help is no longer a labor alternative that can be utilized. The DOE has determined that self-help labor is an ineffective method of installing Weatherization materials.
- B4.3.b. Under no circumstance shall materials be left with the applicant or property owner to be installed without supervision and Housing and Community Development permission.
- B4.3.c. When Income (rental) property is weatherized, the property owner will be required to contribute financial, labor and material resources in most cases.
- B4.3.d. Self help will not be used to move clients up on the waiting list.

B4.4. Non Profit, Private, or Corporate Foundations

B5. COORDINATION OF FUNDS

Agencies are directed to coordinate with HUD or other federal, state, or local agencies where opportunities exist to leverage funds and coordinate eligible activities. Some things to keep in mind are:

- Cost sharing is required.
- To aid in coordination of service local agencies may move the client up the priority list.
- Local agencies should consider trying to provide Weatherization inspections, audits, safety tests and conservation measures on non-Weatherization low-income and affordable housing projects as a fee-for-service where those services are not available commercially.

B6. DRUG FREE WORKPLACE CERTIFICATION

The U.S. Department of Energy requires all recipients and sub-recipients of federal Weatherization funds to certify that they meet the requirements of the Drug Free Workplace Act of 1988 (Pub. L. 100-690, Title V, Subtitle D). This means that Local Weatherization agencies will be required to meet certain requirements including the following:

B6.1. Agency Responsibilities

The agency certifies that it will comply or it will continue to provide a drug free work place by:

- B6.1.a. Publishing a statement of notification to employees.
- B6.1.b. Establish an ongoing drug free awareness program.
- B6.1.c. Provide a copy of notification to each employee.
- B6.1.d. Inform employees that the notification is a condition of employment.
- B6.1.e. Require that employees notify the agency of any drug convictions.
- B6.1.f. Take action within 30 days of notice regarding employee drug convictions.
- B6.1.g. Make a good faith effort to maintain a drug free work place.

B7. LOCAL AGENCY PROCUREMENT PROCEDURES

B7.1. General

- B7.1.a. All agencies are required to follow their applicable Federal, State and local agency procurement requirements and practices.
- B7.1.b. State of Utah purchasing rules will apply to the State staff.
- B7.1.c. Local agencies may use their parent organization purchasing rules as long as they do not specifically contradict any applicable federal rules.
- B7.1.d. All agencies that have a written procurement policy must ensure it provides for open and free competition while ensuring the agency receives the goods and services necessary to conduct proper weatherization services.
- B7.1.e. State of Utah Purchasing contracts should be utilized whenever possible to reduce costs of goods and services as well as procurement costs themselves.
- B7.1.f. The key documents agencies need to be reviewing for guidance:
 - [10 CFR 440](#) Low-Income Weatherization Assistance Program
 - [2 CFR 200](#) Uniform Administrative Requirements
- B7.1.g. When a sub-grantee uses contract labor for services the contract shall not allow for a base charge. Labor costs shall be detailed by approved weatherization measure or health & safety measure allowing the determination of measures meeting the necessary cost tests.

B7.2. Property Accountability

- B7.2.a. General
 - i. Property accountability is the responsibility of the local agency.
 - ii. The dollar threshold for tracking of property purchased with State WAP funds shall be \$5000 and higher.
- B7.2.b. Property \$5000 and higher and all vehicles must be tracked for their entire life. Tracking shall include the following:
 - i. Item (Make, Model ,Serial number etc.)

- ii. Date Acquired
- iii. Location of property
- iv. Where property was purchased
- v. Funding source(s) used to procure. (Include contract #)
- vi. Federal Award Number(s)
- vii. Purchase price
- viii. Disposal Date
- ix. Disposition (Sold, scrapped, disposed, etc.)

B7.3. Pilferable Property

Local agency's need to have measures in place that safeguard property below the tracking threshold that are commonly viewed as pilferable, such as:

- B7.3.a. Cordless drill kits
- B7.3.b. Combustion analyzers
- B7.3.c. Specialty tools

B7.4. Duplicate Purchases

Each agency must have policies and take steps to prevent duplicate and unnecessary purchases.

B7.5. Procurement Records

Procurement records need to include documentation of all procurement activities, not only for formal procurement activities but informal procurement activities as well. Examples of these types of activities are:

- B7.5.a. Formal
 - i. Request for Proposal
 - ii. Request for Bid
 - iii. Request for Quotation
- B7.5.b. Informal

- i. Local purchase
- ii. Internet purchase

B7.6. Contractor Disbarment

Agencies are required to verify that all contractors, suppliers, vendors, etc. are not on the federal debarment list. Prior to engaging in any transaction with these groups the agency must verify their current status by doing a search on the System For Awards Management (SAM) at <https://www.sam.gov>.

B7.7. Purchases over 5k

Purchase of Equipment; \$5000 and greater or vehicle with Weatherization Funds

B7.7.a. General

- i. Purchases of \$5000 and greater or vehicle must be approved State WAP office. Purchases utilizing DOE funds will require DOE approval.
- ii. Approval from DOE will be requested by the Housing and Community Development after State WAP office endorsement.
- iii. The following procedures also generally apply to the purchase of new and used vehicles as well as other weatherization equipment with a cost of \$5000 or greater.
- iv. Purchase requests will be submitted to State WAP using the Utah WAP Vehicle & \$5k Purchase Request form.

B7.7.b. State Purchasing Contracts & Cooperatives

B7.7.c. All local agencies are encouraged to utilize State of Utah Purchasing contracts or other buying cooperatives that improve their buying power.

B7.7.d. Pre-Bid or Solicitation

Prior to the solicitation for bids or quotes the local agency shall provide the State WAP office with:

- i. Justification of the purchase
- ii. Solicitation documents
 - Open & Close dates
 - Bid or Solicitation notification method
 - Steps must be taken by the local agency to ensure a competitive procurement process.

- Equipment minimum specifications
- Evaluation criteria
 - Extra items beyond minimum specification not taken in to account
 - Any rating systems to be used
 - Agency needs
 - Compliance to any standard or regulations
- Selection criteria
 - Lowest bid
 - Lowest bid that meets minimum specifications
 - Lowest bid that best meets the needs of the agency
 - Rating system

iii. Budgeting of purchase

- Funding sources
- Cost shares
- Trade-in from old equipment

B7.7.e. Post-Bid or Solicitation

Prior to awarding the bid or solicitation or any funds are expended the local agency shall provide the State WAP Office with:

- i. Copy of winning bid
- ii. Approval of bid from local authorities (executive director, governing boards etc.)

B7.8. Inter Agency Purchase/Transfer

Local agencies can also purchase/transfer used vehicles or equipment from other local Weatherization agencies. The local weatherization agencies wishing to purchase/transfer the used equipment should send the request to the State WAP office requesting permission to purchase the used equipment. This request should disclose the terms of the transaction.

- B7.8.a. Agency's may not use DOE funds for the purchase of vehicles/equipment from other agencies that used DOE funds for the original acquisition.

B7.9. Asset Management & Disposal

Management & Disposal of Equipment, Materials or Vehicles

B7.9.a. General

Agencies must document the entire disposal process in their program files showing final disposition of items purchased with Weatherization funds. Approval by Housing and Community Development may be required in certain circumstances.

- i. Property value is to be “Fair Market” value. The local agency is responsible to provide supporting documentation on determination of Fair Market value.
- ii. Agencies shall request disposal using the Utah WAP Vehicle & \$5k Disposal Request form.

B7.9.b. Vehicles

Approval by Housing and Community Development is required prior to disposing of a vehicle. Housing and Community Development needs the following information in the request for disposal:

- i. Vehicle description and identification
- ii. Date and cost of initial purchase **including original funding source**
- iii. Approximate current market value
- iv. The reason for disposing of the vehicle
- v. Whether the agency has advertised the vehicle to other Weatherization agencies in the state
- vi. The intended use of any proceeds from the disposal.

B7.9.c. Equipment \$5000 and above

- i. Authorizations to sell, trade, donate or otherwise dispose of equipment must be received in writing by the Housing and Community Development before the actual disposal takes place.
- ii. If the cumulative value of the items being disposed of exceeds \$5,000 the Housing and Community Development approval is required
- iii. Equipment purchased with DOE funds will require approval prior to any action by DOE. The request to DOE will be made by HCD.
- iv. Information required in the request:
 - Equipment description and identification
 - Date and cost of initial purchase **including original funding source**
 - Approximate current market value

- The reason for disposing of the equipment.
 - Whether the agency has advertised the equipment to other Weatherization agencies in the state.
 - The intended use of any proceeds from the disposal.
- v. Any proceeds that result from the disposal of vehicles or equipment acquired with DOE funds shall be returned to the U.S. Treasury or as otherwise instructed by DOE.

B7.9.d. Equipment below \$5000

- i. Authorizations to sell, trade, donate or otherwise dispose of equipment is not required by the Housing and Community Development.
- ii. The local agency shall follow the parent organization's disposal procedure if it has an accountability threshold less than \$5000.
- iii. Anytime equipment or other assets are to be sold, traded, donated or otherwise disposed of, the local agency must document the disposition and justification for the disposal to the level of accountability of the parent organization.
- iv. A detailed description of the items and their condition, proceeds received, value, recipient, and any other pertinent or essential information must be documented in the program files.
- v. Any proceeds must be credited to the funding source and budget category the items were originally purchased from.
- vi. It is recommended that any such items be first offered to, donated or sold to other local Weatherization programs.

B7.9.e. Materials

- i. Disposal of weatherization materials, while not common, may occur from time to time. Situations such as:
 - Mis-measured windows (bone yard)
 - Damaged materials
 - Expired products
- ii. Since these products are not being accounted as installed they must be tracked to disposal. Documentation of this disposal needs to be detailed and justify these inventory adjustments.
- iii. Agencies shall establish procedures for inventory control of materials. Those procedures will include:

- Accurate up-to-date posting of material
 - Check-in and check-out logs
 - Accurate cost accounting procedures
 - Detailed verification of materials installed on each home.
- iv. At least an annual comprehensive physical inventory count shall be made by the agency using a disinterested person to oversee and assist in the count as a guarantee of inventory accuracy.
 - v. Material inventory sheets & invoices are required to show all materials installed on a job. These documents need to indicate what funding source they were paid from and allow for relationship of the material to the measure.

B7.9.f. Scrap, Removed Equipment, Waste, other items

- i. Scrap materials, removed equipment, waste and other items taken from the jobsite shall be disposed of in an appropriate manner. These items shall not be re-used by reused by staff or other parties.
- ii. Any recyclable waste should be taken to a recycling facility and funds recouped from these activates shall be returned to the program.
- iii. Non-recyclable materials should be disposed of in a way that is the most environmentally sound.
- iv. Waste and protective materials from Lead Safe Weatherization shall be disposed of in accordance with RRP requirements.
- v. Weatherization workers shall not handle any hazardous materials, such as asbestos.

Exception: If an Agency is properly trained, holds any applicable nationally recognized certifications, maintains the necessary State of Utah License, and carries the Pollution Occurrence Insurance within acceptable limits.

B7.10. Leasing Vehicles

Leasing of vehicles is not encouraged and the Housing and Community Development must first approve any vehicle lease.

DOE Weatherization regulations include leasing of vehicles as an allowable expenditure, 2 CFR 225 and 2 CFR 220 require that the expenditures be justified, allowable, and reasonable.

B7.11. Non-Weatherization Use of Weatherization Equipment and Vehicles

B7.11.a. General

*SECTION A:*Funding
*SECTION D:*State

*SECTION B:*Agency & Program
*SECTION E:*H&S

*SECTION C:*Application
Table of Contents

Equipment and vehicles purchased with Weatherization funds may be used by a local agency for non-Weatherization use, but only when reimbursement for that use is made to the Weatherization program.

B7.11.b. Vehicles

- i. Other agency or program's drivers are covered by their own insurance to drive the Weatherization vehicle.
- ii. Non-Weatherization vehicle use will be charged and reimbursed to the program at the current calendar year IRS rate.

B7.11.c. Equipment

Weatherization equipment use will be charged at a comparable rate to what a rental company would charge for such equipment rental.

B7.11.d. Fee for Service

Fee-for-Service projects undertaken by local agencies must follow the same guidelines as above with the following exceptions:

- i. Agency vehicle and liability insurance will remain in effect.
- ii. Agency staff salaries & fringe and other expenses will be reimbursed 100%
- iii. 10% of the local fee-for-service charges may be designated as administration as long as all other agency costs are covered.
- iv. Any fees received must be used within the Weatherization program and not for general agency administrative or other purposes.

B7.11.e. Vehicle Insurance

All vehicles being used for Weatherization activities by both local Weatherization agencies and their contractors must meet the legal requirements of the state of Utah. In addition, bodily injury/property damage liability coverage limits should be at least \$1,000,000.

B7.12. Weatherization Materials Procurement

B7.12.a. Materials Standards

Any materials purchased must comply with the standards set forth in:

- i. [Appendix A 10 CFR 400](#)

ii. Current codes

B7.12.b. Reasonable Inventory

Local agencies are cautioned to not maintain excessive inventory of weatherization materials. It is desirable to purchase in a volume allowing for price breaks when possible but unrealistic to maintain inventory levels that would account for multiple years of consumption of a line item.

B7.13. Recoverable Materials Requirement

B7.13.a. Resource Conservation Recovery Act (RCRA)

Section 6002 of the Solid Waste Disposal Act, as amended by the Conservation and Recovery Act of 1976 (RCRA) states that:

Local Weatherization agencies must put into effect affirmative procurement programs to insure the procurement of insulation products is composed of the highest percentage of recoverable materials practicable, taking into consideration completion, availability, technical performance, and cost. The insulation materials covered include cellulose, fiberglass, perlite composite board, plastic foams and boards, and rock wool. Only agencies that procure \$10,000 or more of these products annually are required to put into effect an affirmative procurement program.

B7.13.b. Materials Purchasing

Agencies will need to review and revise their purchasing specifications and institute an affirmative procurement program. This would have four elements:

- i. A recovered materials preference
- ii. Agency promotion
- iii. Requiring estimation, certification and verification of recovered material content
- iv. An annual review of the effectiveness of the procurement program

B7.13.c. Material Content

EPA's Recommended Recovered Materials Content Levels for Building Insulation are as follows:

Material	Postconsumer Content %	Total Recovered Material Content %
1. Rock Wool	--	75%
2. Fiberglass	--	20-25%

3. Cellulose loose fill & spray on	75%	75%
4. Perlite composite board	23%	23%
5. Plastic foam	--	9%
6. Foam-in-place	--	5%
7. Glass fiber reinforced	--	6%
8. Phenolic rigid foam	--	5%
9. Plastic. Non-woven batt	--	100%

Additional information can be found on the EPA website at

<http://www.epa.gov/osw/conserve/tools/cpg/products/building.htm>

B7.14. B7.14. Rental Expenses

- B7.14.a. General: Prior to a local agency entering in to a rental agreement where the expense will be charged to funds administered under this program there will be a review by the State WAP office.
- B7.14.b. B7.14.b. Supporting Documentation: The local agency will submit supporting documentation that shows the following:
- Specification detailing the needed requirements for the agency's proposed rental. These specifications should scope items like necessary square footage, security requirements, accessibility, and location. All specifications shall be supported by reasonable and tangible program or agency requirements.
 - Evaluation Criteria and a scoring system that will assess submitted proposals against the specifications. There shall be a scoring system associated with the evaluation criteria to determine the most acceptable proposal.
 - Solicitation of needs in an open and competitive process. This documented process needs to meet the requirements of 2 CFR 200.319 Competition. The agency shall make every reasonable effort to obtain as many proposals as possible. Sole source might not be approved without very extenuating circumstances.

B8. AUTHORIZED WEATHERIZATION MEASURES

B8.1. General

- B8.1.a. All Weatherization work implemented must first be justified under the NEAT/MHEA audit or other approved audit tool.

- B8.1.b. Installation of a measure with an SIR lower than 1 is based off documented needs from non-DOE funding sources are permitted when specifically indicated in these guidelines.
- B8.1.c. All work must meet or exceed all local and state building codes.
- B8.1.d. Local agencies are required to install only those Weatherization measures that have a stand-alone SIR of 1.0 or greater.
- B8.1.e. Agencies will install all qualified measures with an SIR of 1 or greater. When documented, circumstances require a measure may be omitted.
- B8.1.f. If a client or landlord refuses installation of a certain measure with a higher SIR, then installation of lower SIR measures, such as window replacements, cannot be installed.
- B8.1.g. The local agency coordinator, at their discretion, may decide to not install certain measures, under documented circumstances, where it is in the best interest of the program or client. These decisions should not be often or taken lightly and should be clearly justified and be in keeping with guidance found in B9.3.
- B8.1.h. **No SIR buy down will be allowed.**
- B8.1.i. The installation of measures that do not have an SIR of 1 or greater maybe installed when paid from non-DOE funds. Consistency in these decisions is strongly recommended.

The following activities fall in the scope of this program and shall be considered for Weatherization:

B8.2. HVAC systems:

- B8.2.a. The measure requires an SIR of 1 or greater using DOE funds.
- B8.2.b. This measure can be installed with LIHEAP, State Weatherization funds, Dominion Energy without an SIR.
- B8.2.c. All HVAC equipment installed under this program shall be installed following *Attachment #22 Best Practices HVAC* as reasonably as possible.
- B8.2.d. All HVAC equipment installed under this program shall have corresponding forms in *Attachment #22* completed and placed in the client file or crisis file.

- B8.2.e. All HVAC equipment installed under this program shall be installed in accordance with manufacturer's specs, and with BPI 1200 standard
- B8.2.f. 60% AFUE furnaces (atmospheric burner, standing pilot light) discovered during normal weatherization activities or crisis situations, regardless of the fuel type, will be replaced with 90% - 95% units whenever possible.
- B8.2.g. If natural gas is in the area, every effort should be made to utilize this fuel source. Only LIHEAP & LIHEAP Crisis funds can be used to run the gas piping from the street to the house. The agency must show an SIR of 1 or greater when doing this conversion.
- B8.2.h. Replacement of existing 80% efficient furnaces will be based on the age and on the cost of repairing the existing equipment.
- If an existing unit is more than ten years old and the cost to repair the furnace will be greater than \$300 it should be considered for replacement.
 - If the furnace is 15 years or older it should be considered for replacement.
- B8.2.i. Air Conditioning will not be added to replacement furnaces unless the guidelines are followed in [B8.24 Air Conditioners](#).
- B8.2.j. New delivery and return ducts can be paid for by DOE as long as the full cost is included in the required payback or cost effectiveness calculations.
- B8.2.k. Modifying existing ducts to increase comfort or efficiency or to decrease static pressure is an allowable measure. Whenever possible, duct Modifications should be audited as an IRM and paid for using DOE or LIHEAP funds. Duct Modifications can be audited as a NAM when it is not feasible to audit as IRM, and the reason for the modification is documented on the audit.

B8.3. Programmable Setback Thermostats.

- B8.3.a. The measure requires an SIR of 1 or greater using DOE funds.
- B8.3.b. This measure can be installed with LIHEAP, State Weatherization funds, Dominion Energy without an SIR.

B8.4. Ceiling, Wall, Floor, Perimeter and Duct Insulation.

It is the intent of the program to fully insulate all portions of the building shell, where possible, up to the current State of Utah energy code R-value standards.

- B8.4.a. The measure requires an SIR of 1 or greater using DOE funds. This measure can be installed without an SIR using LIHEAP & State Weatherization funds.
- B8.4.b. Actual R-values required are dependent upon the climate zone location of the dwelling. See *Attachment #34* for the current climate zone map and the corresponding R and U value requirements.
- B8.4.c. Individual situations may prohibit the full implementation of these measures in some cases.
- B8.4.d. Local agencies have the option to use the standards for the next higher climate zone if the area in question has a significantly colder climate than is reflected in the climate zone map.
- B8.4.e. Attic Access/Attic Hatch: Every Attic Hatch on the thermal boundary of a dwelling shall be air sealed and insulated to an R-value similar to the rest of the attic. It should also have an insulation dam installed when necessary. Whenever possible this should be addressed as part of an ECM, or as an IRM. If there are no associated ECM's this measure shall be installed as a NAM.
- B8.4.f. Cellulose must be certified and approved for use by the Housing and Community Development before being installed in any client home as listed in *Attachment 17*. Every bag must bear the testing laboratory label and appropriate tag displayed near the attic access in the attic.
- B8.4.g. An insulation certificate shall be installed on or in the electrical distribution panel or other approved location. The certificate shall list the following:
- r-value of insulation installed in:
 - ceiling
 - roof
 - walls
 - floor
 - foundation wall
 - crawlspace
 - mobile home belly
 - duct outside conditioned spaces
 - u-factor and SHGC of fenestration
 - results of building & duct leakage tests

- types and efficiencies of heating, cooling, and water heating equipment

B8.4.h. Drill & Fill holes maybe painted to match the original finish when the local agency has established a written policy on this matter. (Note see UWP 12-2)

B8.5. Water heater insulation

B8.5.a. This is an audited item that requires an SIR

B8.5.b. This measure can be paid from all funding sources except Dominion Energy.

B8.6. Pipe Insulation

B8.6.a. This is an audited item that requires an SIR

B8.6.b. This measure is done in conjunction with other insulation measures.

B8.6.c. This measure can be paid from all funding sources except Dominion Energy.

B8.7. Reserved.

B8.8. Replacement prime windows.

B8.8.a. The measure requires an SIR of 1 or greater using DOE, LIHEAP and State Weatherization funds.

B8.8.b. Reserved.

B8.8.c. Only low-E double pane vinyl windows may be installed with a U-value of .30 or less.

B8.8.d. All windows must be labeled with the “ANSI” and “NFRC” sticker according to Federal labeling requirements.

B8.8.e. At least one window considered for replacement in each bedroom must meet current egress standards. The minimum opening height of 24” high and minimum opening width of 20”. The window must have a net clear opening of 5.7 square feet with a sill height of no more than 44”. This applies to all rooms used as sleeping facilities. Mobile homes are exempt from this policy.

B8.8.f. Replacement of basement windows that do not meet the egress requirement of B8.8.e is permitted in any room that is not a bedroom or sleeping area.

B8.9. Re-glazing and Replacement of Thermal Units.

- B8.9.a. The measure requires an SIR of 1 or greater using DOE funds. Cost shall be included in air infiltration or incidental repair to wall insulation, when installed.
- B8.9.b. This measure can be installed with LIHEAP and State Weatherization funds without an SIR under documented circumstances that comply with the provisions of this measure.
- B8.9.c. Insulated Glass units will be replaced only if the glass on one of the panes is cracked to the point it is either missing or has sharp jagged edges.
- B8.9.d. Replacement is not permitted for bb holes, minor cracks or any type of fogging of the unit.
- B8.9.e. If the glass is severely cracked on both panes of glass, the unit may be replaced. Costs should be charged to incidental repairs and included in air infiltration where possible.
- B8.9.f. Documentation of these replacements is required in the client file.

B8.10. Replacement Refrigerators

- B8.10.a. The Primary Refrigerator in each dwelling should be replaced as an ECM when the energy savings result in an SIR of 1 or greater using DOE, LIHEAP Weatherization, or State Weatherization funds. See [B9.9.b](#) for guidance on evaluating refrigerators.
- B8.10.b. Refrigerators cannot be replaced under the LIHEAP Crisis program.
- B8.10.c. When the client is a Rocky Mountain Power customer:
 - i. Agencies shall apply for the RMP refrigerator replacement reimbursement
 - ii. Agencies should apply for the RMP refrigerator testing reimbursement when applicable. To claim reimbursement the test must be conducted for a minimum of 72 hours.
 - iii. A replacement refrigerator will still qualify for the RMP refrigerator replacement rebate when consumption data from the NEAT/MHEA refrigerator database is used; but it will not qualify for the testing reimbursement since no test was conducted.
- B8.10.d. Replacement Refrigerators:

- i. must be Energy Star rated.
 - ii. Should be similar in size and style to the existing refrigerator
 - 1. should be similar in style or layout to the existing refrigerator, (e.g. Replace a Top Freezer with a Top Freezer, replace a Side by Side with a Side by Side)
 - 2. should be similar in size to the existing refrigerator, (e.g. Replace a 19.5 cubic foot fridge with either a 19.5 or 20 cubic foot fridge).
 - 3. should not be smaller than the existing refrigerator unless the client consents to it.
 - 4. can be larger than the existing refrigerator, provided it has an SIR of 1 or greater. This allows the auditor to consider the size of the household. Larger refrigerator size should be based on the following guidance:
 - a. 18 Cubic Feet for household of three to five
 - b. 21 Cubic Feet for household of five to seven
 - c. 25 Cubic Feet for household over seven
 - iii. No more than one refrigerator may be replaced per dwelling.
 - iv. One-for-Two: If the client agrees, agencies can replace two existing refrigerators with one new efficient refrigerator. The energy consumption from both refrigerators may be combined for the NEAT/MHEA audit. If the SIR is 1 or greater, a larger replacement may be used per [B8.10.d.ii.4](#).
- B8.10.e. The Primary Refrigerator: is the refrigerator in the kitchen or cooking area of each dwelling. This should typically be inside the conditioned space.
- B8.10.f. All refrigerators that are replaced must be removed and recycled with the refrigerant recovered according to EPA guidelines. Under NO circumstances shall the old refrigerator remain with the owner.
- B8.10.g. Client Education: As part of client education, agencies should inform clients of the benefits of keeping refrigerator coils clean. A coil cleaning brush can be included with the client education packet (*see B10.2 Client Education*).

B8.11. Infiltration Reduction

- B8.11.a. The measure requires an SIR of 1 or greater using DOE funds.
- B8.11.b. This measure can be installed with LIHEAP and State Weatherization funds without an SIR under documented circumstances.

B8.12. Exhaust Fans

- B8.12.a. This measure can be installed using DOE, LIHEAP and State Health & Safety without an SIR.

B8.13. Window Films or Reflective Materials

- B8.13.a. This is not an approved ECM.

B8.14. Wood/pellet burning stoves

- B8.14.a. This measure can be installed with LIHEAP and State Weatherization funds without an SIR under documented circumstances.
- B8.14.b. Any EPA certified wood or pellet stove is eligible.
- B8.14.c. This is only an option when this is the sole source heat and not a supplement to an existing system.
- B8.14.d. This should only be considered if it is not reasonable to connect to local utilities or other extenuating circumstance as approved by Housing and Community Development.

B8.15. Replacement boilers

- B8.15.a. The measure requires an SIR of 1 or greater using DOE funds.
- B8.15.b. This measure can be installed with LIHEAP, State Weatherization, & Dominion Energy funds without an SIR under documented circumstances.
- B8.15.c. Replacement Boilers: Must be installed in accordance with manufacturer's specs, and with BPI 1200 standard.

B8.16. Heat Pumps

- B8.16.a. The measure requires an SIR of 1 or greater using DOE funds.
- B8.16.b. This measure can be installed with LIHEAP and State Weatherization funds without an SIR under documented circumstances.
- B8.16.c. Heat Pumps Must be installed in accordance with manufacturer's specs, and with BPI 1200 standard.

B8.17. Reserved**B8.18. Trailer skirting**

- B8.18.a. Written approval from the Housing and Community Development is required before these materials can be purchased and installed.

B8.19. Water flow controllers

- B8.19.a. This is an audited item that requires an SIR
- B8.19.b. This measure can be paid from all funding sources except Dominion Energy.

B8.20. Vapor barriers/retarders

- B8.20.a. This is a Health & Safety item.
- B8.20.b. This measure can be paid from all funding sources except Dominion Energy.

B8.21. Items to improve attic ventilation

- B8.21.a. This measure is done in conjunction with attic insulation measures.
- B8.21.b. This measure can be paid from all funding sources except Dominion Energy.

B8.22. Replacement doors

- B8.22.a. The measure requires an SIR of 1 or greater using DOE, LIHEAP and State Weatherization funds.
- B8.22.b. Reserved.
- B8.22.c. If the door(s) are not audited as an energy efficiency measure they can only be replaced in conjunction with audited air sealing that includes the costs of the door(s).

B8.23. Waste heat recovery devices

- B8.23.a. Written approval from the Housing and Community Development is required before these materials can be purchased and installed.

B8.24. Air Conditioners

- B8.24.a. There are 2 circumstances when an agency can consider replacement of an Air Conditioner: 1) when cooling equipment audits for replacement, 2) when a weatherization heating measure renders cooling equipment inoperable, This section explains the requirements and special considerations for each scenario.
- i. **Cooling Equipment Audits for Replacement:** A weatherization qualified client has operable cooling equipment (see [B8.24.b](#)) that audits for replacement with an SIR of 1 or greater.
 - 1. Replacement systems can be installed as an ECM using DOE , LIHEAP, or State Weatherization funds.
 - 2. Repairs cannot be done using DOE funds.
 - 3. An AC clean & tune can be done as an ECM with an SIR of 1 or greater using DOE , LIHEAP, or State Weatherization funds.
 - ii. **Weatherization Heating Measure Renders Cooling Equipment Inoperable:** a weatherization qualified client has operable cooling equipment (see [B8.24.b](#)) that will no longer function with the heating equipment installed under the provisions of B8.1.b HVAC Systems.
 - 1. If the Heating system is replaced as an ECM, the replacement AC system should be installed as an IRM using DOE , LIHEAP, or State Weatherization funds.
 - a. If auditing the AC as an IRM exceeds the cumulative SIR, both the Furnace and AC should be installed as a NAM.
 - 2. If the heating system is replaced as a NAM, the replacement AC system should also be installed as a NAM.
 - iii. **Deleted**
 - iv. **Deleted**
- B8.24.b. Operable Cooling Equipment Verification: Agencies must verify AC equipment is operable or has been operable within 12 months of the work start date. If the equipment operation cannot be physically verified, agencies can use of the previous year's billing history to show the AC's power consumption during the cooling season. A copy of this verification shall be placed in the client file. When it is not possible to verify that the existing system was operable, work shall be considered as "New Installation" and follow all applicable rules.
- B8.24.c. Central AC Systems

- i. Systems shall be sized using ASHRAE Manual J edition 8 or approved equivalent load calculation tool. A copy shall be placed in the client file.
- ii. Work on central AC systems should be documented on Attachment #22 and placed in the client file.
- iii. General weatherization activities such as: duct sealing, duct insulation etc. should be conducted.
- iv. Refrigerants shall be handled in accordance with Clean Air Act Section (CAA) 608.
- v. Technicians handling refrigerants will hold the appropriate CAA Section 608 certification. (Type I, Type II, or Universal)
- vi. When installation of a new central AC system is technically infeasible or cost prohibitive window unit or room AC may be considered.

B8.24.d. Window Units or Room AC

- i. Service work is limited to:
 - 1. Proper mounting
 - 2. Cleaning & adjusting coils or fins
 - 3. Cleaning fan
 - 4. Maintaining safe power connections
 - 5. Other low-cost/no-cost repairs or adjustments
- ii. New units must be “Energy Star” rated.
- iii. Existing units shall be removed from job site and refrigerant recovered per CAA Section 608.

B8.24.e. Evaporative Coolers

- i. Cooler lid and insulation pillows must be installed
 - 1. During the cooling season install to verify fit and
 - 2. Educate client on usage and
 - 3. Remove and store
- ii. Duct work should be evaluated and weatherized accordingly (sealed, insulated, etc)
- iii. No Evaporative Coolers on mobile home roofs.
 - 1. To minimize the complications associated with roof installations, replacement coolers shall be installed through a window or wall. They shall not be installed on the roof.

2. The water supply shall be terminated from the existing system so it cannot freeze and burst.
3. The existing cooler shall not be removed from the roof. The old cooler vent(s) should be insulated and air sealed from inside of the home.

B8.25. Water Heaters

- B8.25.a. The measure may not be evaluated as an energy efficiency retrofit measure.
- B8.25.b. Deleted
- B8.25.c. This measure can be installed using DOE, LIHEAP, and State Weatherization H&S funds or Dominion funds when following all the requirements of the H&S Plan covered in [SECTION E: Health & Safety Plan](#).
- B8.25.d. Water Heaters: Must be installed in accordance with manufacturer's specs, and with BPI 1200 standard.
- B8.25.e. Water Heaters installed in manufactured housing must be HUD approved for Mobile Homes.
- B8.25.f. Replacing a water heater solely because it is not HUD approved for Mobile Homes (non-mobile home approved) is not allowable.

B8.26. ECM Motors

- B8.26.a. This measure can be installed as an Energy Conservation Measure (ECM) with an SIR of 1 or greater using DOE, LIHEAP, and State Weatherization funds.
- B8.26.b. Deleted.
- B8.26.c. Agencies should ensure they are not creating a high static pressure in the HVAC system when installing this measure. For additional guidance see [B9.8.i.v](#)

B8.27. HVAC Clean & Tune

- B8.27.a. The measure requires an SIR of 1 or greater using DOE funds.
- B8.27.b. This measure can be installed with LIHEAP, State Weatherization & Dominion Energy funds without an SIR.
- B8.27.c. The work conducted under this measure will need to be documented using:

[SECTION A](#):Funding
[SECTION D](#):State

[SECTION B](#):Agency & Program
[SECTION E](#):H&S

[SECTION C](#):Application
[Table of Contents](#)

- Attachment #22 Warm Air Furnace Long Form
- Attachment #22 Air Conditioner Start Up & Performance Check

B8.27.d. Replacement of existing filters and leaving additional filters is part of this measure.

B8.27.e. Equipment must be commissioned in accordance with manufacturer's specs, and with BPI 1200 standard.

B8.28. Lighting

B8.28.a. The measure requires an SIR of 1 or greater using DOE, LIHEAP, or State Weatherization funds.

B8.28.b. The measure can be installed with no SIR when the Client has a RMP account and the agency uses CFL's purchased by RMP.

B8.28.c. CFL bulbs should only be installed in lights that are on for 2 hours or more.

B8.28.d. LED's are an approved bulb

B8.29. Operation and Maintenance Items (O&M's):

B8.29.a. O&M have been deleted. For more guidance on where they are now covered see Attachment #10 O&M List Remapped

B8.30. Knob and Tube Wiring:

B8.30.a. General

- The agency should always consider abatement of the wiring. The Local Agency should attempt to audit the abatement costs of the wiring as an IRM to the insulation measure being considered and fund the measure using DOE or LIHEAP Wx.
- For non-weatherization situation see Section C3.1.b.iv.
- The presence of knob and tube wiring does not eliminate the possibility of insulating but may limit what can be done. With special testing and inspection procedures, an attic with knob and tube wiring can and should still be insulated.
- Knob & tube wiring should not be insulated over since this can cause overheating and increase the possibility of fire.

- v. As a word of caution, since this condition is potentially dangerous, local agencies must continue to exercise uncompromising caution when insulating homes with knob-and-tube wiring. The responsibility for safety and the use of good judgment rests with the person authorizing the work.
- vi. When insulation is installed over knob-and-tube wiring, agency inspection staff must document, in the client file, a summary of the condition of the existing wiring including but not limited to:
 - Overall condition of wiring
 - Un-soldered splices or connections
 - Damaged or missing insulators
 - Proper fuse size and panel condition

B8.30.b. Attic with Knob & Tube

- i. Because the first few inches of insulation reduce the greatest proportion of heat loss, it is imperative that attics with knob and tube wiring be insulated, even partially.
- ii. Insulation can be installed up to and even touching the bottom of the wiring, but care must be taken not to cover the wiring under any circumstances.
- iii. Batt or blown-in insulation must be installed under the wiring to prevent excessive heat loss into the attic.
- iv. The trench method of insulating may be used as well, or other combinations of methods can be implemented.

B8.30.c. Walls with Knob & Tube

- i. Walls with knob and tube wiring cannot be insulated under normal circumstances unless special inspection by qualified inspectors and testing procedures are followed.
- ii. Walls containing knob and tube wiring can be fully insulated providing every fuse panel and circuit involved has been visually inspected by qualified inspectors and tested
 - Sure Test Branch Circuit Analyzer, or similar, that measures the voltage drop at full load (15 amps) and that the drop does not exceed 5%.
 - A voltage drop of up to 10% will be allowable if a visual inspection of the wiring by a qualified inspector is completed in addition to the branch circuit voltage drop test and procedures established by the Philadelphia Housing Development Corporation (PHDC) as outlined in the September/October 1995 issue of Home Energy Magazine are followed.

iii. When insulation is installed over knob-and-tube wiring, agency inspection staff must document, in the client file, a summary of the condition of the existing wiring including but not limited to:

- Overall condition of wiring
- Un-soldered splices or connections
- Damaged or missing insulators
- Proper fuse size and panel condition

Local agencies must not insulate over knob-and-tube wiring unless they are satisfied that it is safe and has met the above conditions. The recommended best practice is to replace attic knob and tube wiring with modern electrical materials.

These requirements and standards will be implemented statewide unless prohibited, or otherwise superseded by local building codes.

B9. ENERGY AUDITS

This section provides guidance on how to conduct Energy Audit field collection and how to run the NEAT and MHEA audit tools to evaluate homes.

B9.1. Certified Energy Auditor

B9.1.a. General

- i. All persons who conduct energy audits must be a Certified Energy Auditor recognized by the Housing and Community Development Division (HCD) or hold an Auditor in Training validation from the IWTC. A Certified Energy Auditor is required to hold the BPI Energy Auditor Certification and an IWTC Auditor Validation.
- ii. Auditor in Training: An Auditor in Training must be supervised by a certified Energy Auditor, must meet the milestones in their training plan, and shall be certified within a reasonable period of time (typically within 12 months).
- iii. Auditor in Training Validation: An individual must show an initial level of competency and receive an Auditor in Training Validation from the IWTC before conducting any energy audits. The IWTC will work with the Agency and the individual to develop an Auditor in Training plan. The plan will include a timeline, a description of how certification requirements will be met, and will identify the certified Energy Auditor who will supervise the Auditor in Training.

- iv. Training Audits must be Reviewed by a Certified Energy Auditor: While Auditor's in Training are allowed to conduct energy audits, all energy audits for WAP completions that are conducted by an Auditor in Training must be reviewed by a Certified Energy Auditor. The Energy Audit Review Checklist form (see NEAT Audit on the WAP Resources webpage) or similar should be used for this review and should be included in the audit file.
- v. Local agencies may contract out energy audit services to other certified energy auditors if needed.
- vi. The HCD reserves the right to revoke the validation of any energy auditor or Auditor in Training per Section *D2.7 Utah WAP Validation of 3rd Party Certifications*.

B9.2. Approved Audit Tools

B9.2.a. General:

- i. The Weatherization Assistant (NEAT/MHEA Audit) as approved by HCD and the DOE shall be used by all agencies to conduct audits on site-built and factory built homes. The audit tool will be used in determining the Savings to Investment Ratio of each weatherization measure and the correct priority of weatherization improvements for each dwelling unit.
- ii. The current version to be used is Version 8.9 found at <http://eber.ed.ornl.gov/pub/weatherization/Weatherization%20Assistant%208.9/WA%208-9-0-5.exe>
- iii. The HCD received approval to use the Weatherization Assistant ver. 8.9 (NEAT/MHEA) from DOE as listed herein in August 2015. HCD is in the process of reapplying for 2020.
- iv. The NEAT audit will be used for all single family homes and buildings with 4 units or less with the exception of factory built homes, as defined in *Attachment #26*.
- v. The MHEA will be used on all single family factory built homes, as defined in *Attachment #26*, except as described in vi.
- vi. Either the NEAT or MHEA audit can be used for factory built homes where the building envelope has been altered with light conventional framing, factory built homes installed on site-built basements or crawl spaces, and modular homes. Auditors should select the audit tool which will provide the best opportunity to maximize the energy savings for these irregular combined construction types. **The key to this exception is the inclusion of Site-built conditioned space, or a Site-built basement or crawl, to the factory built home.**

- vii. Multi-Family Auditing: Utah does not have an approved multi-family audit tool. Contact the State for guidance prior to accepting any application of a project larger than 4 units. Multi-family buildings will be audited as follows, and will be reviewed by HCD and DOE.
1. The NEAT audit shall be used on buildings with 2 to 4 units and the agency can proceed with weatherization without any additional approval.
 2. On buildings with 5 to 25 units with individual heating systems, units shall be audited using the NEAT audit, and the results of the energy audits shall be submitted to the State and its DOE project officer for approval before any work can be performed on the building.
 3. On buildings with 5 to 25 units with central heating systems and on all buildings with more than 25 units, the units shall be audited with EA QUIP and shall be submitted to the State and its DOE project officer for approval before any work can be performed on the building.
 4. Any blower door testing in a multifamily building will be of individual units. Blower door testing of individual units provides only a qualitative indication, not a quantitative measurement, of air leakage. Still, it is a valuable test to perform selectively because it will show the leakage points in the outside envelope as well as the leakage points between adjacent units. Both are important to identify because envelope leakage affects energy efficiency (and comfort) and unit-to-unit leakage.

B9.2.b. Weatherization Assistant Program Setup

The local agencies are responsible for the setup of the Weatherization Assistant. To maintain consistency between the local agencies the State is instituting the following:

- i. The local agency is responsible for database preservation. This preservation should follow the agency's record retention policy.
- ii. A list of mandatory Audit Library Measure settings is included in the *Setup Library Measure Life Settings worksheet* (see the *NEAT Audit section on the WAP Resources webpage*).
 1. This list establishes the maximum life of each library measure, and includes instructions explaining how to adjust the lifespan of the approved 30 year measures in the Weatherization Assistant v. 8.9 .
 2. It indicates which library measures are required to be active or inactive.
 3. This list is reviewed at least annually by HCD and updated as the need arises.
 4. Agencies must adjust their Library Measure settings to reflect any updates or changes made to this list.
- iii. Agencies are required to have estimated measure costs for all active measures.

1. Measure costs should include all materials and labor needed to meet the requirements of the SWS, field guides, and program guidelines for the measure.
 2. Measure Costs must represent the average actual cost of each measure to ensure that dwellings are evaluated accurately and equitably for all allowable measures.
 3. Measure costs cannot be inflated to avoid performing the measure.
- iv. Agencies are required to update their Measure Costs at the beginning of each new program year (July 1), and whenever there is a significant change in a cost factor. Updates should include the Library Measure Costs and any User Defined Measure Costs.
 - v. Agencies are responsible to maintain uniformity in measure costs across all devices used to run energy audits.
 - vi. When changes are made to any setup parameters, agencies must ensure steps are taken to preserve the existing database information so historical audits will not be altered. Agencies shall document the changes using the *Audit Setup Library Change Log in their WAP Reports workbook*.
 - vii. User Defined Energy Conservation Measures (ECM's) are established and approved by HCD and listed in Table 3 below. Approved User Defined ECM's must be created and active in an agency's library of measures. User Defined ECM's have a method for calculating energy savings. Default values are listed in the Approved User Defined ECM's Table below. *Note: There is currently only one approved User Defined ECM*

Table 3: Approved User Defined ECM's (Energy Conservation Measures)								
Measure Name	Include In SIR	Measure Type	Units	Default Amount*	Fuel Saved	Life** (yr)	Site Built	Mobile Home
ECM Motor (Electronically Commutated Motor)	✓	HVAC Systems	kWh	400	Electricity	15	✓	✓

*Either the default amount, or a calculated amount, can be used when running the audit. If calculated amount is used, a copy of the calculations must be included in the client file.

**Life of measure can be adjusted to the expected remaining life of the furnace.

- viii. Minimum Acceptable SIR—Under Setup Library → Key Parameters, the *Minimum Acceptable SIR* shall be set to 1.0 in both the NEAT and MHEA.
- ix. Fuel Costs—will be provided to the agencies on an annual basis from the results of the fuel survey conducted by HCD (see Fuel Costs on the WAP Resources webpage). Agencies must adjust their fuel costs by effective dates each year, and must ensure steps are taken to preserve the existing database information so historical audits will not be subject to the new costs. In areas where the local agency has multiple fuel providers the agency may average like fuels with similar cost or create separate Fuel Cost Libraries. This should be reported in the Agency's Weatherization Operations Plan submitted to the State.

- x. NEAT Insulation Types—should list only allowable insulation types for each category. Each category should have at least one type listed. The R-values should align with manufacturer specs for each type of insulation the agency uses, and costs for each insulation type (listed under the Library Measures) must be economical and must represent the average actual cost. Where there are multiple feasible options for insulation, efforts should be made to select the insulation type with the highest SIR.
- xi. Weather File—selection for the NEAT/MHEA weather file shall be based upon the physical location of the client home. Since there are many variables in these weather files HCD has selected which files will be used. The local agencies will select the file from the following:
 1. BRAG = Pocatello, ID
 - Rich County = Rock Springs, WY
 2. UBAOG = Rock Springs, WY
 3. 5 County AOG
 - Washington County below 4000' = Yucca Flat, NV
 - Washington County above 4000' = Cedar City, UT
 - All other areas = Cedar City, UT
 4. SEUALG
 - San Juan County below 4500' = Yucca Flat, NV
 - San Juan County above 4500' = Salt Lake City, UT
 5. All other agencies below 4500' = Salt Lake City, UT
 6. All other agencies above 4500' = Cedar City, UT

B9.3. Energy Audit Prioritizations

B9.3.a. General

- i. Audit Determines Work—The NEAT/MHEA audit shall be used to determine all work to be done on a dwelling. Any work to be done on a dwelling must be documented and justified in the audit reports. ***No weatherization work may be conducted or funds expended on a client home without first completing the appropriate NEAT/MHEA audit.***
- ii. Exceptions:
 - No Heat Crisis
 - Life safety situation

- iii. **Cost Effective Measures**—Stand Alone Energy Conservation Measures (ECM's) and each package of measures which includes all ECM's and all Incidental Repair Measures (IRM's), must be "cost effective" as defined by DOE. "Cost Effective" means that each measure and package of measures installed in a dwelling unit must have a savings-to-investment ratio (SIR) which meets or exceeds 1.0. Under NEAT/MHEA, a measure shall only be implemented where the savings to investment ratio (SIR) of that measure is a minimum of 1.0
- iv. **Measure Prioritization**— Each dwelling should be evaluated for all eligible measures that can be installed. The energy audit will determine the optimum set of cost-effective measures and will prioritize them in the NEAT/MHEA *Recommended Measures* report in order of cost-effectiveness. Once approved, all measures must be installed in the unit in the order of cost-effectiveness.
- v. **Measure Skipping**—**measure skipping of cost-justified major measures is not permitted at any time.**
 - 1. **Measure Skipping**—is defined as follows: Not installing, in order of decreasing Savings to Investment Ratio (SIR), the cost-justified Energy Conservation Measures (ECM's) and related Incidental Repair Measures (IRM's) included in the work scope produced by the NEAT/MHEA audit tool.
 - 2. **Major Measure** —is defined as follows: A high priority measure, which if skipped , would result in "partial" weatherization of a unit. Major measures are as follows: air sealing, duct sealing of ducts outside the thermal boundary, attic insulation, wall insulation and floor or belly insulation.
- vi. **Alterations to Prioritized Measures:** alteration of the cost-justified prioritized Recommended Measures list must be addressed in the following ways:
 - 1. *Funding limitations:* If all funds available to be spent on the job will not cover the entire work scope, then measures may be removed from the audit starting with the lowest SIR measure and working up the list from there. The package of measures must remain overall cost-effective or the job must be deferred. Necessary Health and Safety (H&S) measures may NOT be removed from the work order; however, ECMs can be removed.

2. *Prior to work beginning:* Client education is important to inform a client of planned measures and material use. Resistance from a client to install any measures and/or materials planned as a result of an energy audit-directed work order or priority list should be addressed with either additional education and/or re-running the energy audit with a different - but acceptable - material to determine if the substitute material is cost effective. If no cost-effective option for the material can be identified, the auditor should again explain and discuss the situation with the building owner or occupant. If the building owner or occupant still declines a measure, not defined as a major measure, the **auditor must include in the client file a comprehensive justification, including background/source documents that support the decision to skip a specific measure.** All other weatherization measures must be installed. If the auditor **cannot access background/source documents that justifies the building owner/occupant's decision to decline a measure or the measure is defined as a "major measure,"** the situation must be fully documented in the client file and the job must be deferred due to client refusal.
 3. *Inadequate training:* A lack of training is not an allowable reason to skip measures. Standard procedure should be to postpone job(s) requiring priority measures that cannot be installed due to lack of trained staff until adequate training is acquired.
 4. *After a job has begun:* Due to scheduling, measures are sometimes installed with a lower priority first. If during the installation process, the client declines a higher priority measure, work must stop at the time the client declined the higher priority measure. No further installation is allowed and the job must be inspected by a Quality Control Inspector (QCI) and closed out as a completed unit. This should be clearly explained in client file documentation. It is recommended that agencies include a statement for client signature that states the client is aware and accepts all WAP rules, including the specific services and measures determined by an energy audit.
- vii. Declined Minor Measures—if a client declines a measure that is not a major measure, appropriate client education should be used to attempt to eliminate the client's concern. If after explanation and discussion, the client still declines the measure and the **auditor deems the reason for declining the measure as legitimate**, the auditor should complete all other weatherization measures and include in the audit file a comprehensive explanation of the rationale for skipping the specific measure. If the **auditor deems this is not a legitimate reason for declining the measure**, the situation must be fully documented in the audit file. Some Examples of legitimate reasons for declining a minor measure could be:
- Declining exterior door replacement to preserve aesthetics of home.
 - Declining refrigerator replacement because the replacement would not have the same features as the current refrigerator.

viii. Evaluate All—when selecting replacement options in the audit NEAT/MHEA tool, “Evaluate All” should be used wherever possible to allow the audit tool to evaluate for all active measures and to select the one with the highest SIR. If Evaluate All is not selected, an allowable justification must be listed in the comments section of the measure. Some examples of situations when Evaluate All would not be selected are listed below: (See the Measure specific sections of [B9.8](#))

- Replacing Furnace as NAM
- Replacing AC as NAM
- Basement Window does not meet egress.
- Windows are new and low-e double pane.

ix. Fuel Switching or Fuel Conversions—the general practice of non-renewable fuel switching when replacing furnaces/appliances is not permitted; however, Fuel Switching is allowed when changing or converting a furnace/appliance using one fuel source to another on a limited, case-by-case basis.

1. Use of DOE funds is not permitted for Fuel Switching.
2. Use of LIHEAP and LIHEAP Crisis funds is permitted when there is a demonstrated SIR of 1 or greater using *Attachment 7 Fuel Conversion Calculator*.
3. The SIR for conversion from electrical, fuel oil, propane, & coal to natural gas shall be calculated using *Attachment 7 Fuel Conversion Calculator*. **All other fuel conversions and all Equipment conversions shall be reviewed and approved by the State WAP office.**
4. Landlords will not be required to cost share on rentals (See [C45](#) for the specific rules that apply to Income Properties) **Buy downs are not allowed.**
5. The energy savings of all ECM’s shall be calculated based on the post-weatherization, post-fuel conversion, heating and cooling source. When doing a fuel conversion on a dwelling the Heating and Cooling tabs of the NEAT/MHEA audit should list the new heating and cooling systems as the replacement systems in order to allow the audit to accurately calculate the SIR of all ECM’s affected by the heating and cooling loads. Since the NEAT/MHEA audit is not designed to evaluate for some equipment and fuel conversions, auditors may have to select the new equipment or fuel source on the Heating tab, and use false inputs for the existing equipment as a work around. See [B9.8.i Heating](#) for additional instructions. Whenever this is done, an explanation must be included in the comments section of the appropriate heating, cooling or water heater tab.
6. The water heater may be considered for fuel conversion when converting the primary heating source. Structural issues, code issues, and financial impact should be considered when making this decision as it might not be the right option in some homes.

B9.4. Energy Auditing On-Site Procedures

B9.4.a. On-Site Visit

Agencies shall conduct a thorough energy audit of each approved client home prior to beginning the weatherization process. During the on-site visit the Auditor shall conduct all applicable inspections and tests listed in the BPI 1200 standard. They shall collect the following baseline data and record it in the client file (see also *C4.3 Energy Audit Documents*).

1. NEAT/MHEA data collection. All applicable data pertaining to the building envelope necessary to run a complete energy audit (data about windows, doors, appliances, existing insulation, etc.) shall be gathered using the agency's field collection forms.
2. Photo documentation of existing pertinent conditions at time of audit.
3. Pre-Weatherization Blower Door CFM₅₀
4. Existing ventilation to estimate ASHRAE (Attachment #22)
5. Health & Safety Assessment (Attachment #20)
6. X-Ray Florescence (XRF) testing of painted surfaces that may potentially be disturbed during the WX process in all homes built or manufactured before 1978. Results should be summarized using the Lead Inspection Report (Attachment #28).
7. Worst Case Draft/Spillage Testing (Attachment #9) of atmospheric vented combustion appliances
8. Combustion Analysis of Appliances and ambient air
9. Combustible gas leak testing
10. Duct Leakage to the Outside testing
11. Additional Diagnostic testing: There are many additional diagnostic tests and other data that can be collected during the WX process which can be very helpful in preparing the work order for the unit and ensuring the health and safety of the client. Auditors should not just rely on their experience but also the building science and technology available. Some of these are: Duct leakage testing, Infrared Analysis, Zonal pressure diagnostics, etc.

B9.4.b. Field Collection Forms

- i. It is recommended that the energy auditor use a blank NEAT/MHEA Data Collection form during the audit to ensure all necessary information is collected. Some sample forms are available at:
http://waptac.org/data/files/website_docs/technical_tools/audits_priority_lists/weatherization_assistant.
- ii. If the agency desires to use their own forms they must ensure forms include all data fields the NEAT/MHEA audit requires.

B9.4.c. Photo Documentation

- i. Photographs of the pre-weatherization conditions of each dwelling should be taken. These should include, at a minimum, photos of all four sides of the exterior of the home; all combustion appliances, their venting systems and name plates; all electric appliances to be evaluated; any visible deficiencies in the thermal and air barriers; etc.
- ii. Photos should be organized and context should be included to describe the purpose of each photo as it pertains to weatherization.

B9.4.d. Pre-Weatherization Blower Door Testing

- i. A PreWx-blower door test is required on all dwelling units.
 1. Data shall be captured using TecTite®, or approved equivalent software.
 2. Data shall be part of the audit file in hard copy or electronic format.
- ii. If environmental, structural, or other reasons prevent a test, it is to be documented in the audit file.
- iii. PreWx Blower door tests should be performed after the following items have been addressed:
 1. Broken glass is replaced or temporarily patched.
 2. Major holes in building shell are repaired or temporarily patched.
 3. Evaporative cooler vents and window mount refrigeration units are sealed.
- iv. Where the initial CFM 50 exceeds 4,000 on a dwelling unit the opportunity exists to make a significant impact to the home.
 1. The anticipated reduction under Air Infiltration in the audit tool should be calculated at 50%.
 2. The “Infiltration Credit” field on the Estimated ASHRAE calculation should also reflect a 50% reduction when running this for planning purposes.
 3. The agency should make every reasonable effort to achieve a reduction at least 50% on the post-blower door CFM50
 4. If a 50% reduction cannot be achieved, a reasonable explanation must be included in the audit or on the QCI.
- v. Where the initial CFM 50 is less than 4,000 on a dwelling unit :
 1. The anticipated reduction under Air Infiltration in the audit tool should be calculated at 30%.
 2. The “Infiltration Credit” field on the Estimated ASHRAE calculation should also reflect a 30% reduction when running this for planning purposes.

3. The agency should make every reasonable effort to achieve a reduction at least 30% on the post-blower door CFM50
4. If a 30% reduction cannot be achieved, a reasonable explanation must be included in the audit or on the QCI.

B9.4.e. ASHRAE Estimate

- i. An assessment of the existing ventilation must be conducted as part of each audit, and recorded using the current A06 ASHRAE Calculator (see NEAT Audit section on WAP Resources webpage) or approved alternate. Auditors must measure the amount of air each exhaust fan is moving, estimate post-weatherization ventilation needs, and formulate a plan to achieve the needs. For additional information see also [E7.21 Ventilation and Indoor Air Quality](#).

B9.4.f. Health & Safety Assessment

- i. A Health & Safety assessment must be conducted at each dwelling prior to installing any weatherization measures. This assessment is to be performed by the auditor as part of the energy audit. The assessment must identify any actions that need to be taken to maintain the physical well-being of the occupants, to allow weatherization workers to effectively perform weatherization work, and to assess if any health and safety actions will become necessary as a result of weatherization work. Auditors are to use the A07 Health & Safety Assessment checklist (see NEAT Audit section of WAP Resources webpage) in conjunction with the Health & Safety Plan (Program Guidelines [SECTION E](#).) to conduct the assessment. This form must be completed by the auditor, signed by the auditor and the homeowner, and a copy must be in the audit file.

B9.4.g. Lead Testing

- i. Lead testing of all painted surfaces that may potentially be disturbed during the Wx process must be tested in homes built or manufactured before 1978. An X-Ray Florescence (XRF) analyzer must be used to conduct the testing. Results must be summarized using the A08 Lead Inspection Report (see NEAT Audit section of WAP Resources webpage) and the XRF software report. The Inspection report and XRF results shall be included in the audit file. The client shall be informed of the testing and the results (See also [E7.15.b Lead Based Paint Testing](#)).
- ii. Lead testing results must include:
 1. Client's Name
 2. Lead Inspectors name and date of test
 3. Pre and post calibration tests. Readings not accompanied by successful calibration checks at the beginning and end of the testing period are unreliable.

4. Lead test results for every painted surface with a different painting history that will be disturbed during the weatherization process.
 5. Lead test results for each paint profile, on the interior and exterior surfaces of every window and every door that will be disturbed. If lead paint is found on one window, you can assume other windows with the same paint history also have lead. If no lead is found on one window, you CANNOT assume that all the other windows are lead free. You must show that at least one window has lead, and conduct RRP work on all the windows to be replaced with the same paint history, or provide lead tests for every window to be replaced. This is also the same for doors.
 6. Must clearly document the location and surface of each lead test. Including a description of the room, component, and substrate of each test. Any identification by number or shorthand should coincide with a diagram or site sketch.
- iii. Agencies are not required to conduct a Lead Inspection (R307-842-3(2)), Hazard Screen (R307-842-3(3)), or Risk Assessment R307-842-3(4)) as defined by Utah Administrative Code. Since these defined inspections/testing would not ensure the sampling of areas where weatherization activities would be conducted.

B9.4.h. Worst Case Draft Testing

- i. A Worst Case Draft/Spillage Test shall be conducted on every client home at the following stages: as part of the energy audit, at the end of each day where a measure is installed that affects the draft of vented appliances, and as part of the QCI. The BPI Combustion Appliance Safety Inspection for Vented Appliances standard shall be followed when conducting the test (see NEAT Audit section of WAP Resources webpage, BPI 1200 Quick Reference Card). The purpose of this test is to document the current venting conditions of all combustion appliances that are not Category IV appliances; and to determine if any corrective actions or a deferral are necessary.
- ii. All combustion appliances that are not Category IV shall be tested. This includes appliances in spaces that are adjacent to the building envelope where the appliance's draft is effected by pressure changes within the building. Examples of Adjacent Spaces are appliances in: attics, basements, crawlspaces, garages, and manufactured housing with exterior furnace or water heater closets. If an adjacent space is found to be completely disconnected from the building envelope, thru Zonal Pressure Diagnostic (ZPD) testing results of -50 PA wrt the building envelope, the appliance in the adjacent space will not require worst case draft testing from that point forward. The ZPD results showing the complete disconnect shall be documented on the Worst Case Draft Test form. If any work is done which causes the space to again communicate with the living space of the dwelling, WCD testing would again be required.

- iii. Worst Case Draft test results shall be documented using the A09 Worst Case Draft Test form (see NEAT Audit section of WAP Resources webpage) or Tech Log. When Tech Log is used all information that is on the A09 Worst Case Draft Test form should be added to the Tech Log report. See also [E7.8 Combustion Gases](#)

B9.4.i. Combustion Analysis & Combustible gas leak testing

- i. A Combustion Analysis—shall be performed on ALL combustion appliances at the dwelling regardless of whether they are inside or outside the building envelope, and regardless of the appliances venting type. Auditors shall use the BPI 1200 Standard (see NEAT Audit section of WAP Resources webpage, BPI 1200 Quick Reference Card) to determine whether appliances are operating within safe ranges or if corrections are required. Results shall be documented on the A07 Health and Safety Assessment form, and a copy of the Combustion Analysis tapes shall be included in the A10 CO analysis section of the audit file.
- ii. Gas Leak Testing— all accessible gas supply lines shall be inspected for gas leaks using BPI 1200 standard testing procedures as part of the Health and Safety Assessment. The results shall be documented on the A07 Health and Safety Assessment form, and appropriate measures shall be taken to address any leaks found.

B9.5. Four Measure Types

Everything we do in the Weatherization program shall be categorized in to one of the following four measure types: Energy Conservation Measure (ECM), Health & Safety Measure (HSM), Incidental Repair Measure (IRM), or a Non-Audited Measure (NAM). There is a fifth measure type, a Crisis Measure (CRM), that may be noted on a weatherization audit when a crisis measure that will be addressed under the Crisis Program is identified during weatherization ([see C3 Crisis Service Call Program for more info](#)).

B9.5.a. ECM—Energy Conservation Measure:

- i. An ECM is a procedure, including materials and labor, which is considered or performed for its anticipated energy savings (SIR of 1 or greater). An ECM often includes installation of ancillary items but will not include IRMs. The installed cost of all ancillary items associated with the proper installation of an individual ECM must be added to the cost of its ECM when calculating the SIR for the individual ECM. See Guidelines Section [B8](#) for a list of Authorized ECM's.

1. Ancillary Items: are items necessary for the proper installation of weatherization materials. Ancillary items refers to small items such as hardware, nails/screws, other fasteners, adhesive, sealant, etc., and not large-ticket items such as dry walling, roof/floor decking, rough framing, etc. (the latter are incidental repairs). Ancillary items are items required by materials manufacturers, general construction, and/or WAP field standards to achieve a finished product in a typical installation where no unusual or extensive repairs are needed. The costs of ancillary items and installation are to be included within the costs of an individual ECM when calculating the SIR for the individual ECM.
- ii. Allowable ECM's are identified as recommended measures having an SIR of 1 or greater. ECM's do not need to be identified on the audit by the naming convention required with IRM's, HSM's and NAM's.

B9.5.b. HSM—Health & Safety Measure

- i. Health and safety measures are those actions necessary to maintain the physical well-being of both the occupants and/or weatherization workers where the costs are reasonable and the ***actions MUST be taken to effectively perform weatherization work or the actions are necessary as a result of weatherization work.*** The cost of an HSM includes associated materials and labor to install the measure. The cost of HSM's is to be tracked and reported separately, and is not added to the cost of any ECM's or to the cumulative SIR of the package. See Guidelines [SECTION E](#): for approved Health & Safety measures and additional guidance.
- ii. Auditors can use the predefined Health & Safety measures listed in the NEAT/MHEA system, and/or create as many User Defined Health & Safety measures as needed, as long as the HSM is an allowable Health & Safety Measure per Guidelines Section [E7 Health & Safety Table of Issues](#). ***Note: some of the pre-defined Health & Safety Measures in the audit tool are not allowable HSM's. Be careful not to select them.***
- iii. All HSM's must be included on the energy audit. The rationale for performing each HSM and its relationship to the ECM that necessitated it must be clearly documented in the Client file. HSM's should be entered as an Itemized Costs so they appear on the input report under the Additional Measures section. When creating an HSM, the "include in SIR" box should not be selected. HSM's must be identified as an "HSM" in the title of the measure. The rationale and related ECM must be noted in the comment section. See example below:

The screenshot shows a software interface for entering health and safety measures. The 'Health & Safety' tab is active, showing 'Itemized Costs (8)' and 'Utility Bills (0)'. The 'Measure Name' field contains 'HSM - SW on replacement windows'. The 'Cost (\$)' field is '\$175.00'. The 'Include in SIR' checkbox is checked. The 'Comment' field contains 'HSM - Lead Safe Weatherization for windows S1, S2 and W2'. The 'ITEMIZED COST' section shows a list of 8 items.

B9.5.c. IRM—Incidental Repair Measure:

- i. Incidental Repair Measures are those repairs which are ***necessary for the effective performance or preservation of one or more ECM's***. The IRM category is intended for a measure that is not typically part of the installation of an ECM, and is outside the manufacturers or industry standard for installation. IRM's either have no energy savings, or are beyond the normal scope of an ECM. Approved ECM's cannot be installed as IRM's. With the exception of Knob & Tube wiring mitigation, the HSM's listed in *E7 Health & Safety Table of Issues* cannot be installed as IRM's (see also *E4 Incidental Repair vs. Health & Safety E3.4 Case-by-case Measure Approval Process*)
- ii. IRM's should be audited as stand-alone measures, and their costs should be separate from ECM's and from HSM's. The cost of an IRM should include incidental repair materials and labor. The IRM costs are not added to an individual or partial group of ECM costs. The total cost of all IRM's is added to the cost of the package of weatherization measures to calculate the whole unit or cumulative SIR. For each weatherized building, the cost of the total package of ECMs, added to the cost of all IRMs for the building, must have a cumulative SIR of 1.0 or greater.
- iii. Justification for the cost of each IRM and the reason it is necessary for the effective performance or preservation on an ECM must be documented in the audit file with photos and a written explanation. All IRM's must be included on the energy audit. They should be entered as an Itemized Costs so they appear on the input report under the Additional Measures section. The box next to "Include in SIR" must be checked so the measure will be included in the cumulative SIR. IRM's must be identified as an "IRM" in the title of the measure. The comments section must include the written justification for the measure. It should indicate which ECM(s) it is incidental to, along with an explanation of how each IRM is necessary for the effective performance or preservation of the ECM. See example below:

Audit Information | Status | Shell | Heating (1) | Cooling (1) | Ducts/Infiltration | Baseloads | Health & Safety | **Itemized Costs (8)** | Utility Bills (0)

Copy from User Defined Measures
Referenced User Defined Measure

Copy from Library Health and Safety Measures
Clear Reference to User Defined Measure

Measure Name IRM-Roof Repair
Cost (\$) \$75.00 **Include in SIR** ☒
Material 1/2 bundle of shingles, 1/2 sheet plowood, and 15sqft tar paper
Annual Energy Savings Units

ITEMIZED COST
by Description
6 of 8 New Copy Del

Comment IRM-Incidental to attic insulation. Necessary for the effective performance and installation of attic insulation

- iv. When an IRM is included in a package of measures, an auditor must verify that the cumulative SIR is 1 or greater. The cumulative SIR is found under the Energy Savings Measure Economics section of the Recommended Measures report. The cumulative SIR of the package is the cumulative SIR of the lowest ECM on the priority list, or the last ECM on the list. See example below:

Energy Saving Measure Economics

Index	Recommended Measure	Components	Measure Savings (\$/yr)	Measure Cost (\$)	Measure SIR	Cumulative Cost (\$)	Cumulative SIR
1	IRM-Ceiling Repair		0	50	0.0	50	0.0
2	IRM-Roof Repair		0	75	0.0	125	0.0
3	Infiltration Redctn		57	480	1.0	605	0.8
4	User-Spec Ceiling R	A1	26	391	1.0	996	0.9
5	DWH Pipe Insulation		18	16	11.7	1012	1.1
6	DWH Tank Insulation		34	45	7.9	1431	1.4
7	Smart Thermostat		43	75	7.0	1491	1.7
8	Low Flow Showerheads			60	5.4	1491	1.9
9	Wall Insulation	E	95	233	4.9	1491	2.5
10	Foundation Ins.	F1	63	241	4.1	1732	2.7
11	High Eff Furnace	NAM-HS1	50	2000	0.3	3732	0.0
12	HSM - Install ASHRAE fan & switch		0	253	0.0	3984	0.0
13	HSM - LSW on replacement windows			175	0.0	4159	0.0

Annotations: A blue circle highlights 'Lowest ECM on Priority List' pointing to row 10. A red circle highlights 'Cumulative SIR of the package of measures' pointing to row 10. A green circle highlights 'Not an ECM' pointing to row 11.

- v. If a package of measures does not have a qualifying SIR (cumulative SIR is less than 1), it would be necessary to remove the combination of the ECM and its related IRM with the lowest SIR. If the IRM was deemed necessary for effective performance of the ECM, then both the ECM and the IRM must be removed in the attempt to meet the dwelling SIR. This process (removing the lowest ECM and its associated IRM) would continue until the package of measures (and each ECM) has a qualifying SIR. If one IRM is necessary to protect or enhance more than one ECM, (e.g. knob & tube mitigation is protecting attic insulation, sidewall insulation, and foundation insulation) then all of those ECMs together must be considered for removal until the SIR for the package of measures is 1.0 or greater. This process may result in deferral of the weatherization work until another funding source can be found to pay for the IRM(s).

- vi. IRMs must be limited to those minor repairs necessary for effective performance or preservation of measures installed by the Sub-grantee.

B9.5.d. NAM—Non Audited Measure

- i. A Non Audited Measure is an allowable measure that does not require an SIR of 1 to be installed (see Guidelines Section [B8](#)). Typically NAM's are allowable because the job qualifies for use of other funding and the measure meets specific requirements.
- ii. **DOE funding cannot be used to pay for a NAM**
- iii. **Crisis funding cannot be used to pay for a NAM.** *If a Crisis Measure (CRM) is included in the documentation of a weatherization job, the measure must be identified on the energy audit and any work orders as a CRM. For example: if a furnace or AC is being replaced under the Crisis program as outlined in [B9.8.i.i](#) and [B9.8.j.i](#) the measure shall be identified as a CRM. Also see [C3 Crisis Service Call Program](#).*
- iv. If a measure is an Allowable Weatherization Measure (per section [B8](#)), it should first be evaluated to see if it qualifies as an ECM before considering it as an NAM.
- v. NAM's should be entered as an Itemized Cost so they appear on the input report under the Additional Measures section. The box next to "Include in SIR" must be unchecked so the measure costs will not be included in the cumulative SIR.
- vi. Whenever possible, NAM's should be identified as an "NAM" in the title of the measure, and the comments section must indicate why the measure is allowable without an SIR. See example below:

The screenshot shows the 'Itemized Costs' tab in a software application. The 'Measure Name' field contains 'NAM-Replace Mobile Home Door'. The 'Cost (\$)' field contains '\$215.00'. The 'Include in SIR' checkbox is unchecked. The 'Comment' field contains the text: 'Replace North door with new mobile home door. Existing door deteriorated beyond repair. Replacement necessary to complete air barrier. Not enough money in infiltration budget. See photo 17'.

- B9.5.e. DOE funds cannot be used to address incidental repair or health and safety issues caused by or related to the installation of a NAM. If a NAM has related health or safety costs, or incidental repair costs, these costs must be included in the cost of the NAM.

B9.5.f. User Defined Measures

- i. IRM's, HSM's, and NAM's can also be created as User Defined Measures in the Setup Library. In addition to the other setup rules listed above, the Energy Savings field should be set to "No Energy Savings."

B9.5.g. Removing Recommended Measures

- i. Occasionally a recommended measure will need to be removed from the audit. This will typically be an ECM with an associated IRM that exceeds the cumulative SIR (see [B9.5.c.v](#). Incidental Repair Measure), or an ECM that cannot be installed because there is no opportunity to install it due to height limitations or other site specific circumstances.
- ii. To remove an ECM, the associated shell inputs shall be accurately entered into the audit and an additional cost shall be added to the measure so that it no longer pays back to install the measure. The reason for the additional cost shall be documented in the comments section of the measure. This will allow for accurate inputs about the building shell so that the heating and cooling loads are calculated properly, and allows the auditor to document the reason there was no opportunity to install the measure. If the measure was an itemized cost, the measure just needs to be deleted. As a best practice the reason an itemized cost was not considered should be noted in A03 Field Collection Forms.

B9.6. Identifying Measures on the Audit

- B9.6.a. Identifying a Measure by Type on Audit:** Since the audit is the tool we use to document and justify every measure we install on a dwelling, it is important that every measure shall be identified on the audit as one of the four measure types. Identifying the measure type completes the justification process of an ECM and an HSM, and partially completes the justification process for an IRM and a NAM. Each Measure is to be identified by type and meet the additional justification requirements listed in the table below.
- i. Table: How to Identify and Justify a Measure on the Audit

	ECM <i>Energy Conservation Measure</i>	HSM <i>Health & Safety Measure</i>	IRM <i>Incidental Repair Measure</i>	NAM <i>Non-Audited Measure</i>	CRM <i>Crisis Measure</i>
How to Identify Measure Type on Audit	ECM's appear on Recommended Measures Report with a measure SIR of 1 or greater	Listed as an itemized cost with "HSM" written in front of the measure name	Listed as an itemized cost with "IRM" written in front of the measure name	Listed as an itemized cost with "NAM" written in front of the measure name	Listed as an itemized cost with "CRM" written in front of the measure name
Additional Justification Required	None	Yes-Must document why HSM is necessary and allowable. No-HSM's required on every home such as ASHRAE, Smoke & CO's need no additional explanation.	Yes-Must document the ECM(s) the IRM is incidental to, and describe how it protects or enhances the ECM	Yes-Must document why NAM is necessary and allowable without an SIR	Yes-Must document why CRM is necessary and allowable
Funding Source(s)	DOE or LIHEAP WAP	DOE H&S, or LIHEAP WAP H&S	DOE or LIHEAP WAP	LIHEAP WAP, State WAP, Dominion Energy	LIHEAP Crisis

ii. Example 1: Measures identified by the Measure Type on the Input Report

<i>Itemized Costs</i>								
<i>Description</i>	<i>Cost</i>	<i>Include in SIR?</i>	<i>Material</i>	<i>Energy Savings (mBTU/yr)</i>	<i>Units (of energy saved)</i>	<i>Life of measure (years)</i>	<i>Fuel Type Saved</i>	<i>Comment</i>
IRM-Inadequate Attic Ventilation	\$350.00	<input checked="" type="checkbox"/>	Turtle Vents					Incidental to Attic Insulation to enhance performance.
HSM-Vapor Barrier Needed (Basement/Crawlspac e)	\$100.00	<input type="checkbox"/>	See the User Defined Measure for a list of materials.					
HSM-CO Monitor is Needed	\$60.00	<input type="checkbox"/>	See the User Defined Measure for a list of materials.					Install in hallway
HSM-Install ASHRAE fan & switch	\$250.00	<input type="checkbox"/>						HSM - Install ASHRAE fan in Kitchen. Vent to exterior thru roof Set fan to required final CFM Educate client and leave paperwork

B9.7. Standard File Formatting

B9.7.a. Completed audits shall be organized in a standardized format to create uniformity across all agency files, to help agencies determine if the file is complete, and to aid in reviewing of electronic files. Audit files shall be organized into the following sub-sections and shall include all required documentation for each sub-section (see also *B9.4 Energy Auditing On-Site Procedures & C4.3 Energy Audit Documents*):

- A01 Input Report
- A02 Recommended Measures Report
- A03 Field Collection Forms
- A04 Audit Photos
- A05 Pre-Wx Blower Door

SECTION A: Funding
SECTION D: State

SECTION B: Agency & Program
SECTION E: H&S

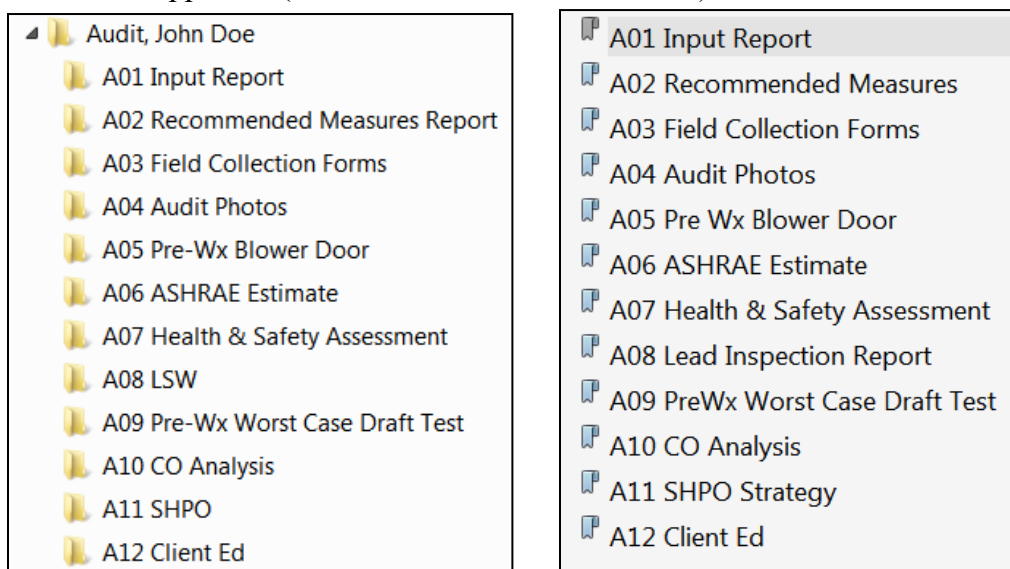
SECTION C: Application
Table of Contents

- A06 ASHRAE Estimate
- A07 Health & Safety Assessment
- A08 Lead Inspection Report & Testing Results
- A09 Pre-Wx Worst Case Draft Test
- A10 CO Analysis
- A11 SHPO Strategy & Docs
- A12 Client Ed

B9.7.b. Paper File Systems—if the audit is stored at the agency as a paper file, the completed audit should be arranged in the order listed above with a tab or a page divider indicating where each sub-section of the audit begins.

B9.7.c. Electronic File Systems—if the audit is stored at the agency as an electronic file, the sub-sections should be used to organize the audit. If the Audit contains multiple files and file formats, a Library should be created with a folder for each sub-section listed above. If the entire audit is saved as a Single Document such as a .pdf, the file should be bookmarked or should include a table of contents (preferably hyperlinked) indicating the beginning of each subsection. See examples below.

Example 2: Left, Library Approach (folder for each sub-section), or Right, Single Document Approach (bookmarks for each sub-section)



B9.8. Standard Audit Settings and Methods

The most current version of the Weatherization Assistant User's Manual shall be used along with the guidance in this section to guide the use of the NEAT/MHEA audit. Whenever the guidance in this section is specific or more restrictive than the User's Manual, the guidance in this section shall be followed.

B9.8.a. Audit Information

The following information should be used to determine which selections should be made on the Audit Information Tab:

- i. Setup Library—Select the library that was effective on the work-start date (the date the on-site audit was started). Auditors should ensure the setup library complies with all settings listed herein.
- ii. Fuel Cost Library—Select the library that was effective on the work-start date. See section [B9.2.b.ix](#)
- iii. Supply Library—Select the library that was effective on the work-start date.
- iv. Weather File—See section [B9.2.b.xi](#)

B9.8.b. Shell

- i. The Shell tab and its respective sub-tabs should be used to enter all aspects of the thermal boundary so the audit can accurately evaluate dwelling energy loads, and determine which opportunities to improve the thermal boundary will be cost effective.
- ii. **Thermal Boundary Strategy:** Auditors are required to formulate a cost-effective strategy to complete the thermal boundary, and to use the audit to evaluate each aspect of the strategy.
 1. Only those aspects with an SIR of 1 or greater shall be installed.
 2. Each audit must contain a written strategy for completing the thermal boundary. On most homes this can be documented using the “Shell” sections of the NEAT/MHEA audit.
 3. More complex single-family homes and multi-family homes may require diagrams to document the strategy. A diagram is recommended on all homes as a best practice.

B9.8.c. Walls

- i. Information about each wall on the thermal boundary of a dwelling should be gathered and input into the audit. *This excludes walls associated with a foundation, or a finished or unfinished attic.*

- ii. Inputs should accurately reflect the building type, orientation, surface area and existing insulation type and thickness.
- iii. Whenever possible the audit should determine if wall insulation will be added
- iv. Auditors should select the most cost effective insulation type to be added
- v. If the wall cavity is already filled with insulation, and it is not feasible to install additional insulation, Auditors can select “None” for the Added Insulation Type.
- vi. If there is no wall cavity, and the interior side of the wall is finished, Auditors can select “None” for the Added Insulation Type and should note the condition in the comment section.
- vii. Since we do not have an effective method for insulating shallow cavities, if a wall cavity is uninsulated and less than 2” deep, Auditors can select, “None” for the Added Insulation Type and note that, there was no opportunity for improvement because the cavity was less than 2” deep.

B9.8.d. Windows

- i. Information about each window on the thermal boundary of a dwelling should be gathered and input into the audit.
- ii. Each window should be set to "evaluate all" to ensure the window is evaluated for replacement with a Low-E window unless excluded in iii, or iv below.
- iii. All windows on the thermal boundary must be evaluated for replacement on the audit unless they are:
 - 1. in a bedroom which does not have a window that meets egress,
 - 2. Or they are double paned low-e windows in excellent condition.
- iv. Any window air sealing opportunities should be addressed and prioritized under the Air Sealing Strategy.
- v. **Basement Windows:** All basement windows on the thermal boundary should be evaluated on the audit. To evaluate basement windows either of the following methods can be used. Auditors should be consistent in the method used:
 - 1. Create a Wall just for BSMT windows and doors: To evaluate auditor should create an additional wall with a surface area 2 to 5 feet larger than the total surface area of all of the basement windows and doors on the thermal boundary. Label the wall “BSMT Windows”. Orient the wall to the direction with the majority of the basement windows. And assign all the basement windows to that wall.

2. Assign Basement Windows to the Wall directly above: To evaluate auditor should increase the total area of the Wall directly above the basement window by the area of the window and assign the basement window to that wall. The auditor must note in the comments section of each basement window that the wall area was increased to account for the basement window.
- vi. Basement Windows that Can't be Weatherized or Replaced: If there are a group of basement windows on the thermal boundary that cannot be weatherized or replaced due to code compliance, the auditor can either:
 1. evaluate each window individually using one of the methods above, select evaluate none, and document the reason the window cannot be weatherized or replaced, OR;
 2. Make one note in the comments section of any of the other windows on the house, documenting the number of basement windows that are not included on the audit, and the reason they cannot be evaluated to be weatherized or replaced.
 - vii. **Emergency escape and rescue openings (Egress):** When none of the windows in a bedroom meets the emergency escape and rescue openings requirements of the current building code, the window(s) in that room cannot be replaced by weatherization. Auditor should select evaluate none, and document in the comment field that the windows in that room do not meet egress.
 - viii. **LSW for Windows:** the cost of Lead Safe Weatherization for windows should never be included in the window ECM. When LSW is required, it should be included on the audit as one HSM for all the Windows requiring LSW. If a window is being replaced as a NAM, the cost of LSW for that window should be included in the NAM.
 - ix. **Methods for evaluating windows:** There are two methods for estimating window cost. By Square foot (NEAT) and United Inch (MHEA), or by inputting the Actual Cost of each window.
 1. SqFt/United Inch: Calculate the agencies average cost per SqFt for the NEAT and United Inch for the MHEA and enter these into the Setup Library under Costs on the Library Measures tab. List the typical Labor and Other costs respectively. If the Additional costs field is used to adjust the cost of any windows, an explanation must be provided in the comment section.
 2. Actual Cost: In the Setup Library, under Costs on the Library Measures tab, leave the Windows and Labor costs at zero, and set the other cost to include the average cost of labor and ancillary items (typically \$50-\$70). Then use the Additional Costs field for each window on the audit to include the actual cost of the window. If the Actual Cost method is used an explanation of additional costs in the comment section is not required. *This is one of the few times an explanation is not required for additional costs listed.

B9.8.e. Doors

- i. Information about each door on the thermal boundary of a dwelling should be gathered and input into the audit. All doors on the thermal boundary must be evaluated for replacement on NEAT audits by including the door type, condition, and leakiness.
- ii. **MHEA Doors:** Since the MHEA does not have a way to evaluate for the replacement of a mobile home door as an ECM based on its leakiness or condition, the door measures should be turned off in the MHEA Setup Library. Mobile home doors can only be replaced as an ECM if they are included in the infiltration reduction measure, or they can be replaced as a NAM using other funding sources where applicable.
- iii. **LSW for Doors:** the cost of Lead Safe Weatherization for doors should never be included in the door ECM. When LSW is required, it should be included on the audit as an HSM. If a door is being replaced as a NAM, the cost of LSW for that door should be included in the NAM.
- iv. **Replacing Doors with Glass:** The goal of replacing a door is to increase the thermal resistance and air tightness of that door. If an existing door on the thermal boundary has glass in it, the auditor can evaluate to replace the door with a more energy efficient door with glass similar to the existing door. The glass in the replacement door must be double paned, Low-e glass and the door must audit with an SIR of 1 or greater. If a door with similar glass does not have the required SIR, the audit should be re-run with a replacement door without glass. If a replacement door has glass in it, a photo of the existing door must be included in A04 audit photos.
- v. If a client refuses the replacement of a door on the thermal boundary, the auditor should evaluate the situation to determine if the declined measure is allowable and should document the situation accordingly (*see guidelines B9.3.a.vii Declined Measure*).
- vi. Sliding glass doors should be evaluated as windows on the Windows tab
- vii. **Basement Doors:** basement doors should be evaluated like basement windows (*see B9.8.d.v Basement Windows*).

B9.8.f. Attics

- i. Information about all attics that are part of the thermal boundary shall be gathered and input into the audit. When there are multiple attics, or attics of differing types or materials, auditors should create multiple attics and evaluate each to complete the thermal boundary.
- ii. The auditor shall identify the existing insulation type(s) and depth(s).

- iii. The Audit shall determine how much attic insulation shall be added to a dwelling. Auditors should select an added insulation Type, but should NEVER enter anything in the "Added R Value" field. If an Added R Value is entered, the audit treats it as a mandatory measure and includes it on the recommended measures report even when it does not have an SIR. The "Max Depth" field should only be used when there is a height limitation in the attic, and should be left blank whenever possible so the audit will determine how much insulation to add.
- iv. If there is more than one type of existing insulation, the type that best represents the majority of the existing insulation shall be selected, and the depth shall be the combined depth of each type of insulation
- v. If there are large sections of an attic (> 30sq ft) where the insulation type or the average depth differs substantially from another, the area weighted r-value of the attic should be used, or each section should be entered into the audit as a separate attic.
- vi. As a best practice, dwellings with finished attics, or multiple attics should include a diagram showing each attic listed on the audit

B9.8.g. Foundations

- i. Information about all foundations that are part of the thermal boundary shall be gathered and input into the audit. Where there are multiple foundations, or foundations of differing types or materials, auditors should create multiple foundations and evaluate each to complete the thermal boundary. When evaluating foundations, the goal is to choose the strategy that will allow you to complete the thermal and air boundary as much as possible, or the strategy that provides maximum allowable completion.
- ii. The auditor shall identify the existing insulation type(s) on the audit
- iii. The auditor shall determine the best location of the foundation thermal and air boundary.
- iv. Utah Field Guide Tables 6-1 and 6-2 shall be used to help determine whether the best location of foundation thermal and air boundary should be at the wall or the floor.
- v. As a best practice, zonal pressure diagnostics should be used to help determine whether the best location of foundation thermal and air boundary should be at the wall or the floor.
- vi. The air sealing, or infiltration reduction strategy must align with the thermal boundary strategy selected

- vii. When the thermal strategy is evaluated, if the NEAT/MHEA leaves a substantial portion of the thermal and/or air boundary incomplete, the auditor must provide additional documentation to show how the strategy selected provides maximum allowable completion.
- viii. Whenever possible, the Audit tool should determine how much insulation shall be added.
- ix. As a best practice, dwellings with multiple foundations should include a diagram documenting each foundation listed in the audit.

B9.8.h. Appliance Specs (HVAC, Water Heater, Refrigerator)

- i. Wherever possible the manufacturer's specifications for the appliance inputs, outputs, efficiency (except Furnaces, see [B9.8.h.iv](#) below), consumption, etc. shall be used in the energy audit. If his data cannot be found on the nameplate of the appliance, in the Preston's Guide, or the manufacturer's website, auditors must document how the Specifications were derived in the comment section for the appliance.
- ii. The Shipped from Factory ratings should be used whenever possible.
- iii. The Output ratings should not be derated for altitude on the energy audit as it will have no effect; but a derated output should always be used when sizing equipment.
- iv. For Furnaces: Wherever possible the measured Steady State Efficiency (SSE) shall be used in the energy audit. If the SSE cannot be measured, the Manufacturer's efficiency rating should be used and the reason shall be documented in the comments section of the Heating tab. If the SSE or the Manufacturer's efficiency ratings cannot be obtained, the following methods can be used. The reason for use and the calculation must be documented in the comments section:

The Output capacity can be determined using the following equation: # of burners x 20,000 x efficiency = Output capacity

- Example: 3 burners x 20,000 = 60,000 x 80% efficiency = 48,000 BTUH
- Efficiency of any Natural draft furnace should be 60% to 70%
- Efficiency of Cat 1 furnace should be 80% to 89%
- Efficiency of any furnace with PVC flues should be over 90%

B9.8.i. Heating

- i. Information about each heating system in a dwelling should be gathered and input into the audit. The Heating tab of the audit must represent the type of heating system which will be in operation *post-weatherization* regardless of whether the heating system will be replaced as an ECM, an NAM, under another program such as the Crisis program as a CRM, or not at all. This will ensure the SIR of all measures tied to the heat load is properly calculated since the heat load is determined by the post-weatherization furnace.
- ii. Heating Replacement as an ECM: To properly evaluate a dwelling, the existing heating system must be listed, along with a reasonable replacement option. The replacement option selected must be an active and allowable measure. The replacement info must be entered regardless of the age or condition of the existing heating system. If the existing system is a brand new 96% efficient furnace, auditors still need to enter in a replacement to show that replacing the furnace will not have a payback.
- iii. Heating Replacement as an NAM or CRM: The replacement system should always be audited first using the “Evaluate All” option to see if the furnace can be replaced as an ECM--(except for fuel conversions). If a Heating system replacement does not have an SIR of One or greater, and it is determined that it is necessary to replace the system based on other reasons per Guidelines [SECTION B:](#) or [C3Crisis Policy](#), then the Heating system should be replaced as a NAM or CRM. To do this, the auditor should:
 1. Select the appropriate mandatory Replacement System Option in the Replacement System Options field. Note: This is one instance where it is permissible to select “replacement mandatory” from the measure options.
 2. Leave the Include in SIR box Un-checked.
 3. Change the name of the System Code to “NAM-- plus the system code the agency prefers to use” or “CRM-plus the system code. For example, NAM-Furn.
 4. Document the reason for replacing the heating system as a NAM or CRM.
 5. See Example below:

NEAT Audit

Audit Name: 6County 1 NEAT Client ID: 6County 1 NEAT Client Name: NEAT, 6County 1 Alt. Client ID:

Audit Information | Status | Shell | Heating (1) | Cooling (1) | Ducts/Infiltration | Baseloads | Health & Safety | Itemized Costs (4) | Utility Bills (0) | Photos (0) | Measures (11)

System Code: NAM-Furn Heat Supplied (%): 100 Primary System: ☒

Equipment Type: Forced Air Furnace Manufacturer: JANITROL Uninsulated Supply Ducts (0)

Fuel: Natural Gas Model: GMP-125-5

Location: Heated Space

Required Heating System Details

GAS FURNACE DETAILS

Input Units: kBtu per Hour

Input Rating: 125

Output Capacity: 100 (kBtu/hr)

Steady State Efficiency: 85 (%)

Condition: Poor (but working)

Programmable Thermostat: ☐

Automatic Vent Damper: Present ☐ Evaluate ☐

Pilot Light/IID: IID ☐ Pilot Light ☐

Power Burner: ☐

Replacement System

Options: High Efficiency Replacement Mar

Fuel: Natural Gas

Include in SIR: ☐

System AFUE: 95

Labor Cost (\$): \$1,000.00

Material Cost (\$): \$1,000.00

Optional Heating System Details | Operational Tests | Vent Tests | Furnace Components | Boiler Components | Inspections | Thermostat

HEATING SYSTEM

by System Code:

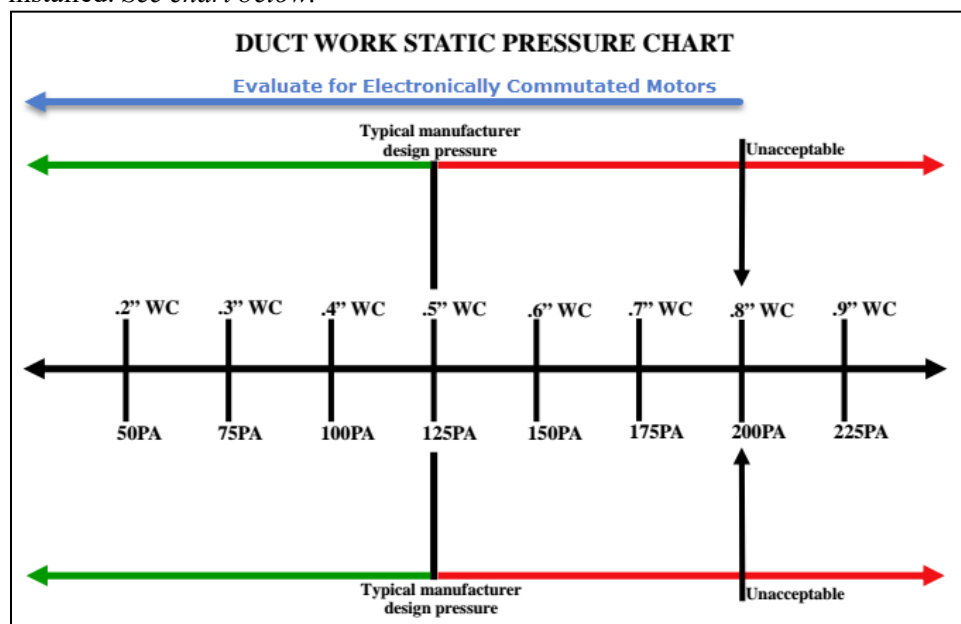
Comments: Furnace is 26 years old in poor working condition. Replaced as NAM per Guidelines B.8.b.vii

- iv. Fuel Conversion (NAM): The NEAT audit is not designed to evaluate for fuel conversions. A Fuel Conversion will be treated as a NAM. DOE funds will never be used to pay for a Fuel Conversion. If a fuel conversion is to be done on the home, the auditor must use *Fuel Conversion calculator* (see NEAT Audit section of WAP Resources webpage) to show a savings-to-investment ratio of 1 or greater. Since the NEAT Audit limits the replacement options to only those heating systems that will work with the primary heating fuel, auditors will have to work around the audit by selecting an existing furnace type similar to the type of furnace to be installed, which will allow the appropriate Replacement system to be selected. Then use the comments field to document what the actual existing heat source is, and that a fuel conversion is allowable. This work-around is not necessary in the MHEA except when the Fuel for the existing Equipment is Wood or Coal.
- v. Electronically Commutated Motors

In some situations, replacing the PSC motor on a furnace with an EC-motor can save your clients energy. Agencies should use this guidance to determine when it is appropriate to install an Electronically Commutated Motor.

1. Each agency shall create at least one user defined ECM in their NEAT/MHEA audit setup library for Electronically Commutated Motors. See *Section B9.2.b.vii Approved User Defined Measures*. The selection of this measure shall be used to indicate when an EC-motor is to be installed. As appropriate, agencies can create multiple user defined ECM's for EC-motors.
2. Air Handlers with standard PSC motors (including electric furnaces) should be evaluated to determine if the installation of an Electronically Commutated Motor is feasible. There are a number of factors to consider when evaluating the feasibility of an EC-motor. Some of these factors are: Size of cabinet, age and expected life of equipment, Total static pressure of duct, etc.

3. Agencies should consider installing an Electronically Commutated Motor anytime the Total External Static Pressure (ESP) of the duct system (*see B9.8.i.iii.4 & B9.8.i.iii.5 below*) is below .8" water column (WC). If Total ESP is higher than .8" WC then an Electronically Commutated Motor should NOT be installed. *See chart below.*



4. Modifications to the duct system to reduce Static Pressure are allowable as an NAM, or as an IRM incidental to the Electronically Commutated Motor. Caution: If duct modifications are audited as an IRM, and the Electronically Commutated Motor cannot be installed because the duct modifications are unsuccessful the IRM must be removed from the audit since the ECM it was incidental to was not installed. As a best practice, it is recommended that Duct Modifications be audited an NAM.
5. It is recommended that a 4" media box and filter be installed whenever possible, in conjunction with the new motor to help reduce static pressure. This measure can be audited as an NAM or an IRM incidental to the Electronically Commutated Motor. *See recommended best practice to audit as NAM above.* Installing a 4" media box can also be included in a larger measure to modify the duct system.
6. When an EC-motor is not going to be installed in a home with an air handler, and the Furnace is not being replaced, the reason for NOT installing an EC-motor shall be documented in the comments section of the Heating tab in the audit. Some examples of what documentation for not installing an EC-motor should look like are listed below:
- Cabinet only 14" wide. Not enough room to install EC-motor.
 - Total External Static Pressure 1.1"WC. Too high for EC-motor, no opportunity to modify duct to correct.
 - Three year old furnace. Installing EC-motor will void manufacturer's warranty.

7. Agencies are not required to evaluate furnace for an EC-motor when there is not sufficient room to install an EC-motor in the cabinet, or when there are fit issues with motor mounts, etc. If the model number of the existing furnace indicates that the cabinet is 14" or less it is not necessary to document reason for not evaluating for an EC-motor.
8. The age of the HVAC equipment should be taken into consideration when evaluating for an EC-motor. Avoid installing an EC-motor when the existing equipment is still under warranty and the installation of an EC-motor will void the warranty. Avoid installing an EC-motor when the equipment is nearing the end of its Estimated Useful Life.
9. Agencies are not required to evaluate Mobile Home furnaces for EC-motors since most mobile home duct systems have high static pressure that can rarely be corrected. It is not necessary to document the reason for not installing an EC-motor on a MHEA audit.
10. If it is determined after the audit has been run that an EC-motor is not appropriate, or will not work on a home, it is permissible to leave the EC-motor on the audit, and document the reason it was not installed on the work order. This is allowable because an EC-motor is a user defined Energy Conservation Measure. It has no impact on the audit's calculation of the heat load of the home, and therefore has minimal interaction with other audit measures. Below is an example of what this would look like:

Example: Leaving ECM motor on Audit when it cannot be installed

Index	Recommended Measure	Components	Measure M Savings (\$/yr)	M
1	Infiltration Reduction		86	
2	DWV Tank Insulation		285	
3	Foundation Ins.	FND	178	
4	Wall Insulation	E1, E2, N1, S1, N1	357	
5	Low-E Windows	11, 4, 10, 5.8, 12, 3, 6	307	
		7, 13		
6	DWV Pipe Insulation		12	
7	Foundation Ins.	FND 1	178	
8	Lighting Retrofits	GLB, L, E1, S	200	
9	Silbox Ins.	FND	40	
10	Cost-Effective Thermostat		6	
11	ECM Motor 3/4 HP		88	
12	Door Seals	2	25	
13	Refrigerator Appliance		110	
14	Furnace Tuneup	Heat	29	
15	Silbox Ins.	FND	29	
16	Attic Ins. R-30	Hatch	4	
17	HDM - Adjustable compliance exhaust fan		0	
18	HDM - CO monitor needed		0	
19	HDM - Fix Improper Venting Chimney Dryer		0	
20	HDM Smoke detector needed		0	
21	HDM Duct modification, add return air for ECM		0	

Measure 11: ECM Motor 3/4 HP

Comment:

#	Material / Labor	Description / Comment	Units	Qty	Estimated		Actual		Inspected
					Unit Cost	Total	Qty	Unit Cost	
10	Unspecified	Misc Material	Each	1	\$425.00	\$425.00			
Other Detail:									
Field Notes: Duct modifications did not reduce Total Static Pressure enough ECM could not be installed									

Measure Sub Total: \$425.00 **Sub Total:**

11. CHART 1: Total External Pressure is measured as shown below = B + C

Static Pressure Test Locations

High limit switches may be removed and pressure taken at that location.
Disconnect power before removing the switch.

Tested by: _____		Date: _____
Audit: <input type="checkbox"/> WX: <input type="checkbox"/> QCI: <input type="checkbox"/>		
Test Location	Pressure	Units (Circle One)
(A)		Pa"/WC
(B)		Pa"/WC
(C)		Pa"/WC
(D)		Pa"/WC

Pressure Drop Over Coil (Subtract)

Pressure Drop Over Coil (Subtract) or N/A ☐

(A) _____ - (B) _____ = _____ Pa"/WC

Pressure Drop Over Filter (Subtract)

(C) _____ - (D) _____ = _____ Pa"/WC


Total External Static Pressure (Add)

(B) _____ + (C) _____ = _____ Pa"/WC

Recommended Actions:

12. CHART 2: Some factors to consider when deciding if an air handler is a good candidate for an EC-motor

Is this Air-Handler a good candidate for an Electronically Commutated Motor ?	
Factors that favor Installing an EC-motor	Factors that favor NOT installing an EC-motor
The Air Handler motor is a PSC motor—this includes electric furnaces	Mobile Home forced air furnaces usually have high static pressure duct systems which are difficult to repair, with air filters that increase static pressure
There is room for the EC-motor to fit in the cabinet	Furnace cabinet is too small. It is an A cabinet (14" wide), or there are motor mount, or other sizing issues.
The Total External Static Pressure of the duct system is below 0.8" WC, or the duct system can be repaired to drop static pressure below 0.8"WC.	Total External Static Pressure is over 0.8" WC, and duct system repairs did not/will not drop static pressure to safe levels.
The appliance is not covered under warranty, is less than 10 years old, and in good condition	The appliance is still under warranty, or is nearing the end of its expected useful life (explore replacement options).
There are indications that the client will perform routine maintenance on the system like replacing the air-filter	There are indications that the client is NOT LIKELY to perform routine maintenance on the system. A dirty filter could raise static pressure and burn up an EC-motor.

13. Learn More: Here's a good video about measuring External Static Pressure: 

14. Learn More: Here's a video showing how to identify PSC and EC-motors:

Identifying EC-motors 

vi. Fireplace as the Primary Heat Source:

1. If a fireplace is the primary source of heat for a dwelling, the following inputs should be used.
 - Input Units: Lbs per hour
 - Input Rating: 8
 - Output Capacity: 32 kBTU/hr
 - Steady State Efficiency: 50%

vii. Duct Insulation

1. All uninsulated duct located outside the thermal envelope should be evaluated to be insulated using the NEAT audit, and should always be insulated when using the MHEA audit.
2. MHEA: Since there is not a way to evaluate duct to be insulated using the MHEA, all un-insulated duct located outside the thermal envelope shall be insulated as part of a belly or attic Insulation measure, or as a NAM.
3. NEAT: All uninsulated supply and return ducts should be evaluated using the "Uninsulated Supply Ducts" section of the heating tab, even though the button label in the audit says, "Uninsulated Supply Ducts".
4. NEAT: If more than three uninsulated duct sizes are present, similar duct sizes should be combined so that all uninsulated duct will be represented in the three spaces provided in the audit.
5. NEAT: Duct can be combined by averaging the size to represent the total surface area of the uninsulated duct (i.e. 10' of 6" round duct and 10' of 8" round duct can be combined and listed as 20' of 7" round duct).
6. NEAT: Since only one location can be selected, Attic or Subspace, the location with the majority of the uninsulated duct should be chosen.
7. Uninsulated Duct for Evaporative Cooler(s) and other secondary HVAC systems which will be operable Post-Weatherization should be evaluated to be insulated using NEAT, and should be insulated using MHEA.
8. Uninsulated duct in a crawl-space that is inside the thermal envelope (or will be post-Wx) can be evaluated to be insulated (NEAT) and can be insulated as a NAM using the MHEA; but is not required to be.

B9.8.j. Cooling

- i. Information about each cooling system on a dwelling should be gathered and input into the audit. The Cooling tab of the audit must represent the type of cooling system which will be in operation post-weatherization regardless of whether the cooling system will be replaced as an ECM, an NAM, under another program such as the Crisis Program as a CRM, or not at all. This will ensure the SIR of all measures tied to the cooling load is properly calculated since the cooling load is determined by the post-weatherization equipment.
- ii. See [B8.24 Air Conditioners](#) and [C3.7 Cooling Crisis](#) for further Guidance.
- iii. If an air conditioner is to be replaced because it will no longer function with the heating system that is to be replaced as a NAM—Fuel Conversion, the cost of the Air Conditioner shall be included when calculating the SIR for the cost of the fuel conversion.

B9.8.k. Ducts/Infiltration

- i. **Infiltration Reduction Strategy (Air Sealing Strategy):** Each audit must contain a written strategy for reducing air infiltration at the thermal boundary by 30% to 50% per the anticipated reduction listed in [B9.4.d](#). The Air sealing strategy should align with the thermal boundary strategy. On most homes this can be documented in the comments section of the “Ducts/Infiltration” tab of the NEAT/MHEA audit. More complex single-family and multi-family homes may require diagrams to document the strategy. A diagram is recommended on all homes as a best practice. Auditors are required to:
 - 1. Measure and document the total leakage of the home using a blower door and the TecTite software.
 - 2. Use blower door and other methods listed in Utah Field Guide Chapter 12 to identify air-sealing opportunities
 - 3. Prioritize Air-sealing opportunities in the following order:
 - a. Duct leakage to the outside—if Duct leakage to the outside is not evaluated as a separate measure is must be address as the highest priority in your air sealing strategy. (*see [B9.8.l Duct Leakage Testing for duct sealing requirements.](#)*)
 - b. Between the conditioned space and attached garage
 - c. Opportunities that can be addressed in conjunction with the thermal boundary strategy
 - d. Between the conditioned space and the attic
 - e. Between the conditioned space and the basement or crawl space
 - f. Between the conditioned space and outside (Lowest Priority)
 - 4. Use the audit tool to determine the total budget for infiltration reduction by adjusting the cost of the measure to get it to an SIR of 1. Per WPN 19-4 air sealing may have an SIR less than 1.0, if the cumulative SIR of the package of measures is equal to or greater than 1.0. (*see [B9.5.c IRM—Incidental Repair Measure:](#) for explanation and examples of the cumulative sir*).

Note: when an Infiltration Reduction measure has an SIR less than 1.0 the measure cannot include duct sealing. Duct sealing must be evaluated as a separate measure.

5. Formulate a cost-effective strategy to reduce air infiltration, based on the prioritization of the air-sealing opportunities and the budget of the measure.
6. Document the Air Sealing Strategy in the comments section of the Ducts/Infiltration tab or on the work order.
7. Wherever possible, Air infiltration reduction efforts should be entered into the Ducts/Infiltration section of the audit. This allows the audit to appropriately account for the energy savings of reducing air infiltration.
 - a. Example: if the cost of air sealing an attic is included in the cost of the attic insulation measure, it reduces the real SIR of that measure, and could cause the SIR of the insulation measure to drop below a 1. The air infiltration costs should be accounted for on the Ducts/Infiltration tab.

B9.8.1. Duct Leakage Testing

- i. Duct leakage to the outside shall be measured on all homes with duct outside the conditioned space, and shall be documented in A03 Field Collection Forms. Duct leakage can be measured using either Pressure Pan Testing, or Duct Blaster Testing. Duct blaster testing is required to qualify for utility rebates.
- ii. **Pressure Pan Testing:** Pressure Pan testing shall be conducted in accordance with [Utah Field Guide 8.14.1 Pressure Pan Testing](#). All Pressure Pan testing shall be conducted while the blower door depressurizes the house to -50 Pa. If the Pressure Pan results are greater than 2.0 Pa at any supply or return register, the duct shall be considered leaky and the auditor must evaluate for duct sealing using the Energy Audit.
- iii. **Duct Blaster Testing:** Duct Blaster Testing shall be conducted in accordance with [Utah Field Guide 8.14.2 Measuring Duct Leakage to Outdoors](#). If Duct Leakage to the Outside is greater than 8 cfm per 100 square feet of conditioned floor area, the duct shall be considered leaky and the auditor must evaluate for duct sealing using the Energy Audit.
- iv. Duct Sealing Goal: The goal of duct sealing is to achieve a 50% reduction in duct leakage to the outside. If the goal cannot be achieved, an explanation shall be documented in the client file.
- v. Duct Leakage in a crawl space shall be considered leakage to the outside, regardless of whether the crawl is inside or outside the envelope post-Wx.
- vi. Duct Leakage in a CAZ can be addressed as a Health & Safety measure when it effects the combustion and venting of combustion appliances ([see E7.8 Combustion Gases](#)).

- vii. Duct Leakage on unused HVAC systems: If a dwelling has a ducted HVAC system not being used, duct outside the envelope still needs to be addressed. Auditors either need to air seal and insulate the duct, or permanently isolate the duct from the thermal boundary of the dwelling. Auditors should discuss the options with the homeowner and commit to one strategy or the other.
 - 1. Example: A manufactured home is primarily heated with a wood stove. The home also has a ducted heating system which has never been used. Instead of sealing and insulating all the duct outside the envelope, the auditor could disable the furnace, and insulate and seal off the duct at the thermal boundary of the home (adjacent to the floor at each supply and return register). The latter option should be addressed as an ECM--Infiltration Reduction, or a NAM when there is not enough money in the Infiltration Reduction budget.
- viii. Evaporative Cooler Ducts: Duct Leakage Testing is not required on duct systems that only serve an Evaporative cooler, but evaporative cooler duct outside the envelope should still be air sealed. The cost of air sealing evaporative cooler ducts should be included in the Infiltration Reduction measure.
- ix. No Ducts outside the Conditioned Space: It is not necessary to conduct Duct Leakage Tests if all ducts are inside the conditioned space. It should be noted on the Auditor's field collection forms when there are no ducts outside the conditioned space.

B9.8.m. Evaluating Duct Leakage in the Energy Audit

- i. Duct Sealing can either be included in the Infiltration Reduction measure, or it can be evaluated as separate measure. Evaluating as a separate measure allows the audit to more accurately calculate energy savings, and generally allows for a greater investment in the two measures.
- ii. If duct leakage is included in the air-infiltration measure instead of being evaluated as a separate measure, it shall be given highest priority in the air-sealing strategy.
- iii. Duct Blower Measurements Method:
 - 1. Check, "Evaluate Duct Sealing", on the Ducts-Infiltration/Air and Duct Leakages tab as shown in red below
 - 2. Select the Duct Leakage Method, "Duct Blower Measurements" from the dropdown menu
 - 3. Fill in all of the required fields appropriately.

NEAT Audit

Audit Name: **Example Audit** Client ID: **Example Client** Client Name: **Doe, John** Alt. Client ID:

Audit Information | Status | Shell | Heating (1) | Cooling (1) | **Ducts/Infiltration** | Baseloads | Health & Safety | Itemized Costs (10) | Utility Bills (0) | Photos (0) | Measures (0)

Air and Duct Leakages Optional Blower Door and Zonal Pressures (0) | Optional Pressure Balance (0) | Optional Pressure Pens (0)

Evaluate Duct Seal ☒ Duct Leakage Method **2** Duct Blower Measurements

3 Whole House Blower Door Measurements

Before Weatherization (Existing)		After Weatherization (Target or Actual)	
Air Leakage Rate (cfm)	3893	2725	
at House Pressure Difference (Pa)	50	50	

Duct Operating Pressures

Before Duct Sealing		After Duct Sealing	
Supply (Pa)	34	35	
Return (Pa)	42	45	

Duct Blower Measurements

Before Duct Sealing (Existing)		After Duct Sealing (Target or Actual)	
Total	Outside *	Total	Outside *
Fan Flow (cfm)	298	120	187
at Duct Pressure (Pa)	25	25	25
House Pressure WRT Outside (Pa)	25	25	25

* 'Outside' readings are taken while the house to outdoor pressure difference provided by a blower door is maintained at the same level as the duct to outdoor pressure difference created by the duct blower. Thus, the 'Duct Pressure' and the 'House Pressure With Respect To Outside' should be equal.

Costs

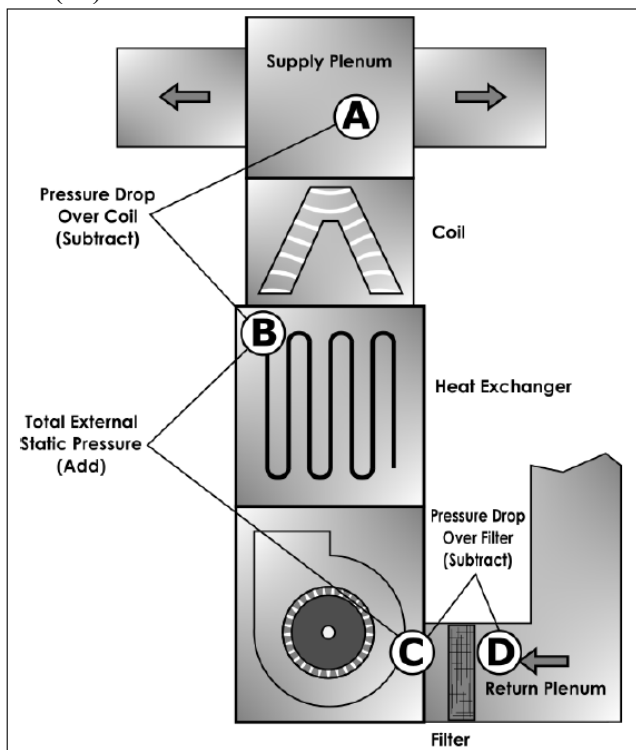
Infiltration Reduction (\$) **\$275.00** Comment **1240 sq ft Conditioned Space. Reduce duct leakage to outside down to 52 cfm or less.**

Duct Sealing (\$) **\$300.00**

Refresh Tightness Limit The minimum recommended CFM at 50pa is: 1427 CFM

Run Audit
Last Run On
Not Run at

- Total duct leakage, and duct leakage to outside test must be conducted on the dwelling to evaluate the duct sealing.
- Static Pressure: Duct operating pressures should be measured according to the image below: Supply (Pa) should be measured at location A, and Return (Pa) should be measured at location D.



B9.8.n. Pressure Pan Measurements Method:

- Pressure Pan Method in the NEAT:

1. Efforts to correct Duct leakage shall be included as the highest priority in the Infiltration Reduction Strategy.
- ii. Pressure Pan Method in the MHEA:
 1. Check, “Evaluate Duct Sealing”, on the Ducts-Infiltration/Air and Duct Leakages tab.
 2. Select the Duct Leakage Method, “Pressure Pan Measurements” from the dropdown menu.
 3. Fill in all of the required fields appropriately
 4. Static Pressure and the sum of all Pressure Pan Measurement must be conducted to evaluate duct sealing with this method.

B9.8.o. Prohibited Duct Leakage Methods

The following are prohibited duct leakage evaluation methods. They are prohibited because they have a high margin of error and there are some programming issues with Weatherization Assistant v 8.9 that the developer has no plans to correct.

- i. Whole House Blower Door Measurements
- ii. Blower Door Subtraction Measurements

B9.9. Baseloads

B9.9.a. Water Heating

- i. The existing equipment should always be listed to allow audit to evaluate for showerheads and baseload costs.
- ii. All Showerheads should be evaluated for replacement. Auditors should use a bucket and a stopwatch to measure the flow of each showerhead, should consult with the client to approximate the time the showers are in use each day, and educate the client on the potential savings associated with replacing with low flow. If the client refuses to have a showerhead replaced, the showerhead should be removed from the evaluation, and the flow, usage, and reason for refusal should be noted in the comments section of the audit. Since showerhead replacement is not a major measure, client refusal shall not be treated as measure skipping.

B9.9.b. Refrigerators

- i. The primary refrigerator in each dwelling shall be evaluated for energy savings against a reasonably priced replacement refrigerator. See [B8.10 Replacement Refrigerators](#) for additional requirements.

- ii. Auditors shall record model number, date of manufacture, condition and energy consumption of the primary refrigerator in each dwelling. If the model number and date of manufacture cannot be determined, the type and approximate age of the appliance shall be recorded.
- iii. Refrigerator Energy Consumption:
 - 1. If the existing primary refrigerator is listed in the NEAT/MHEA refrigerator database, the energy consumption information from the database can be used to evaluate the SIR of a replacement fridge.
 - 2. If the existing primary refrigerator is not listed in the database, the agency shall measure the energy consumption with a Digital Power meter for a minimum of 3 hours to determine the SIR of a replacement. *Note: testing requirements to qualify for the RMP refrigerator testing reimbursement is to meter for a minimum of 72 hrs. See B8.10.c.*
 - 3. Auditors can use metered energy consumption if they are concerned that the listed consumption is not an accurate representation of actual energy consumption.
 - 4. If refrigerator is not listed in the database and cannot be tested, auditor must document reason in the comments section of the refrigerator tab of the audit. A refrigerator cannot be replaced unless it is listed in the NEAT/MHEA audit refrigerator database, or it has been metered.
- iv. If a client refuses a refrigerator replacement, the auditor should evaluate the situation to determine if the declined measure is allowable or legitimate (*see guidelines B9.3.a.vii Declined Measure*). If it is declined for a legitimate reason, the replacement refrigerator info shall be removed from the evaluation and the reason for the declined measure shall be noted in the comments section of the audit.

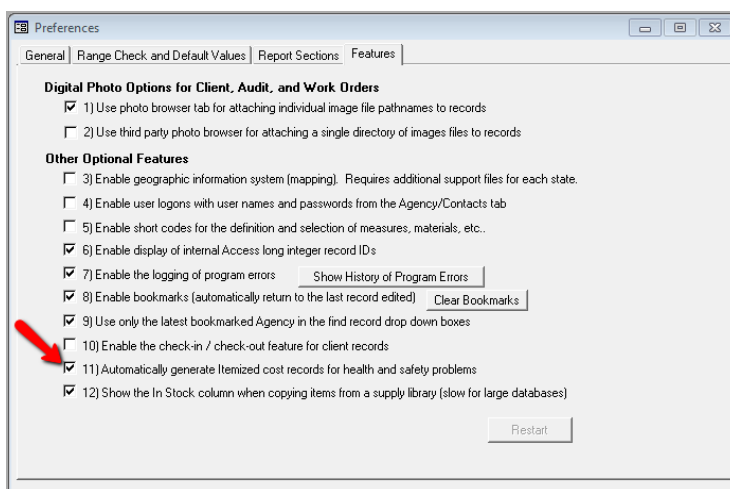
B9.9.c. Lighting Systems

- i. All incandescent bulbs in use for 2 hours or more each day should be evaluated for replacement.
- ii. Incandescent Bulbs in Vanities, Flood Lights, and fixtures candelabra and other non-standard sized bulbs should be evaluated for replacement with similar LED bulb(s)
- iii. Incandescent Can lighting should be evaluated for replacement with LED Retrofit Can Lights. Air-tight LED retrofit can lights could also be considered for installation as part of an air-sealing measure.
- iv. LED light bulbs should be used wherever possible
- v. When an LED bulb is cost prohibitive, a CFL should be considered
- vi. LED bulbs must be Energy Star rated

- vii. To evaluate to replace lights with LED Bulbs, the CFL Size (watts) field on the Lighting Systems tab must be adjusted to reflect the wattage of the LED replacement bulb.

B9.9.d. Health & Safety

- i. A Health & Safety measure should be created on the itemized costs tab for every Health & Safety item identified as the agency's responsibility on the Health & Safety evaluation.
- ii. The cost of Health & Safety measures should be accurate estimates of the actual cost.
- iii. The Health & Safety measures the Other Optional Feature #11 should be active in order to have selections on the Health & Safety tab create an itemized cost for the measure.



B9.10. Itemized Costs

- B9.10.a. Since the audit must list every measure which will be performed on an audit, the itemized cost tab shall be used to create all HSM's, IRM's and NAM's (except for HVAC Replacements which are listed on the heating and cooling tabs) which will be conducted on the home. Follow the instructions under the associated measure type to create these measures.

B10. TRAINING

B10.1. Utilization of Funds

Local Agencies – Training funds will be used primarily for salary, fringe and travel costs to attend local, state, regional and national training events for selected staff. Some funds may be used for training supplies, equipment, materials, facilities, etc. as needed for agency in-house training.

B10.2. Client Education

- B10.2.a. The goal of Client Education is to involve Weatherization clients as partners in controlling their consumption, comfort, pollution and in establishing energy management habits in their household.
- B10.2.b. All agencies are required to educate clients in ways to save energy such as thermostat setbacks, efficient use of draperies, lighting, appliances, day lighting, etc.
- B10.2.c. They are required to provide program recipients a copy of selected client education materials and to explain the use and maintenance of items installed in the home such as *Energy Saver*®, *Bright Ideas*, *Lighting for Smarties*, *Saving Watts of Water*, etc.
- B10.2.d. Each applicable household should also receive a copy of “*Renovate Right: Important Lead Hazard Information for Families, Child Care Providers and Schools*”.
- B10.2.e. The first educational objective with every client-customer is to identify his or her self-interest that could be connected to energy consumption. In order to establish a commitment on the part of the Weatherization client, a non-binding contract between the Weatherization agency and the Weatherization client will be used. This Partnership Agreement can be found in *Attachment 9* as a part of the final inspection certification.
- B10.2.f. Local Weatherization agency workers will continue to develop and implement a more comprehensive and effective client education program.
- B10.2.g. Agencies wanting to claim the \$50 rebate from Rocky Mountain Power for Energy Education on electrically heated homes must provide the approved training curriculum and complete the reimbursement request.

B10.3. Training and Technical Assistance

- B10.3.a. General: Training and Technical Assistance (T&TA) in the Utah Weatherization Assistance Program takes on several forms. As a result of this diversity both individual and group training needs can be addressed for the majority of the local Weatherization agency staff.
- i. **Sub-grantee Monitoring Visits:** During the course of sub-grantee monitoring opportunities will be available to conduct training on weaknesses identified or agency needs.
 - ii. **Weatherization Coordinators meetings:** Every four months state staff and local agency program coordinators meet to discuss policy, changes, strategy and other topics of interest to the group. During these meetings there is usually some training time set aside for the program coordinators regarding program implementation.
 - iii. **The Intermountain Weatherization Training Center (IWTC):** The IWTC will be utilized primary resource for training of the Utah Weatherization Assistance Program. Currently the staff is developing a comprehensive training program based on DOE Standardized Workforce Curriculum.
 - 1. A training calendar will be published.
 - 2. Local agencies may also reserve the center for their own training upon request.

B11. PERFORMANCE STANDARDS

B11.1. General

- B11.1.a. In an effort to achieve the definition of Weatherized Unit in *A5 Weatherized Unit* certain procedures, testing, and documentation is required to be completed. This section will further detail how specific portions of the weatherization process will conducted
- B11.1.b. Any wood installed as part of weatherization will be protected with a primer or sealant.
- B11.1.c. Work site shall be cleaned daily prior to workers leaving.

B11.2. Audits

- B11.2.a. A pre and post-blower door test is required on all dwelling units.

- i. Data shall be captured using TecTite®, or approved equivalent software.
 - ii. Data shall be part of the client file in hard copy or electronic format.
- B11.2.b. If environmental, structural, or other reasons prevent a test, it is to be documented in the client file.
 - i. A blower door operation checklist can be found in *Attachment 21*. This form should be completed and included in each client file.
- B11.2.c. Blower door pre-tests should be performed after the following items have been addressed:
 - i. Broken glass is replaced or a hole is temporarily patched.
 - ii. Major holes in building shell are repaired or temporarily patched.
 - iii. Evaporative cooler vents and window mount refrigeration units are sealed.
- B11.2.d. Where the initial CFM 50 exceeds 4,000 on a dwelling unit the opportunity exists to make a significant impact to the home.
 - i. The anticipated reduction under Air Infiltration in the audit tool should be calculated at 50%.
 - ii. The “Infiltration Credit” field on the ASHRAE calculator should also reflect a 50% reduction when running this for planning purposes.
 - iii. The agency should make every reasonable effort to achieve a reduction at least 50% on the post-blower door CFM₅₀
- B11.2.e. Where the initial CFM 50 is less than 4,000 on a dwelling unit :
 - i. The anticipated reduction under Air Infiltration in the audit tool should be calculated at 30%.
 - ii. The “Infiltration Credit” field on the ASHRAE calculator should also reflect a 30% reduction when running this for planning purposes.
 - iii. The agency should make every reasonable effort to achieve a reduction at least 30% on the post-blower door CFM₅₀
- B11.2.f. Agencies are not required to conduct a Lead Inspection (R307-842-3(2)), Hazard Screen (R307-842-3(3)), Risk Assessment R307-842-3(4)). As defined by Utah Administrative Code. Since these defined inspections/testing would not ensure the sampling of areas where weatherization activities would be conducted.

B11.3. Building Tightness Limit

- B11.3.a. The mandates of WPN 11-6 to use ASHRAE 62.2 have, in effect, removed the Building Tightness Limit.

B11.4. Work Orders

- B11.4.a. All weatherization work shall be directed by a written work order. This may be a hard copy or electronic format.

- B11.4.b. The intent of the Work Order is to get the right person in the right place with the right tools or equipment and materials with enough details to do the job they were hired to do.

1. **Right Person:** When appropriate, the Work Order should be broken down in to the functional areas of the crews organizations the agency uses. (e.g. HVAC, Weatherization, Insulation, Electrical, etc...)
2. **Right Place:** The Work Order should contain enough information that a person who has never been to the job site can reasonably locate where the work needs to be done. Suggestions would be:
 - a. Numbering system or method to indicate which windows are being replaced.
 - b. Use of pictures and/or diagrams to locate and indicate air sealing locations.
 - c. Specific locations for smoke or CO detectors to be installed.
3. **Right tools or equipment:** Information should be given to the crew doing the work that would ensure they have any specialty tools or equipment necessary to complete the job. (e.g. core drill, that a particular task involves LSW)
4. **Right materials:** A component of the Energy Audit is to estimate materials necessary for the job. Providing information on the Work Order that ensures the crews have the right materials for the task they are expected to accomplish. Examples:
 - a. Size and direction of flow of the furnace
 - b. Model of ASHRAE fan and ducting size
 - c. Specific type of hard wired smoke detector
 - d. Approximate bag count of insulation
5. **To do the job they were hired to do:** The work in this program is expected to meet many standards. (Utah Weatherization Field Guides, Weatherization Program Guidelines, State Building Standards, Dominion Energy & RMP Rebate rules) Adding additional information that, when appropriate, references these standards is considered a “Best Practice” to ensuring the work meets the standards of the program and reduces Call Backs.

- B11.4.c. Additional things to consider that help make an effective Work Order

- i. Be measure based and clearly align with the NEAT/MEHA audit associated with the job.

- ii. Being ordered in such a way that the work flow does not require a crew to damage or redo work already done.
 - 1. Attic air sealing prior to insulation
 - 2. HVAC work typically prior to weatherization work
 - 3. Installing a measure, such as wall insulation prior to windows, so a client refusal of a measure will not create a “cherry picking” situation
- iii. Indicating when required forms, testing, or client education is required after the work has been done (e.g. furnace forms, WCDT, combustion analysis, LSW Declaration, changing filters, batteries, etc...)

B11.5. Final Inspections/Completions

B11.5.a. The Final Inspection of a home shall be conducted by an individual holding a current Building Performance Institute (BPI) certification of Quality Control Inspector (QCI) that has been validated and accepted by the State of Utah WAP.

- i. It is the responsibility of the individual to maintain a current QCI certification with BPI. The training required to obtain the CEU’s for recertification are an allowable expense under A2.4 Training and Technical Assistance Costs.
- ii. QCI’s will be required to provide the IWTC with a copy of all CEU’s they obtain to maintain the validation their certification with the IWTC.
- iii. The QCI may not conduct inspections of work that they have done. This includes either the audit or work performed as part of a weatherization crew. Below is a table indicating where the Auditor may QCI their own energy audit and the increased monitoring percentage by the State.

Sub-Grantee	QCI Approach	Monitoring Percentage
Bear River AOG	Auditor/QCI	10%
Salt Lake CAP (dba UCA)	Independent QCI	5%
Mountainland AOG	Independent QCI	5%
Uintah Basin AOG	Auditor/QCI	10%
Southeastern Utah ALG	Auditor/QCI	10%
6 County AOG	Auditor/QCI	10%
5 County AOG	Auditor/QCI	10%

- iv. The QCI may directly supervise personnel conducting required testing as part of the inspection process. This does not alleviate the responsibility of the QCI for the accuracy of the results. The intent is not prevent the QCI from having help during the inspection process and to allow for on the job training.

B11.5.b. The QCI will conduct and document their Final Inspection on the Utah QCI Form found under Attachment 9.

- i. This inspection will cover:
 1. Client File Review
 2. Energy Audit assessment and review
 3. Work Order assessment and review
 4. Post Weatherization Blower Door test
 5. Worst Case Draft/Spillage of atmospheric draft combustion appliances
 6. Combustion analysis of all non-solid fuel combustion furnaces and water heaters in the unit.
 7. Accounting for materials charged to the job.
 8. Verification of invoices credited to the job.
 9. Assessment and verification of audited measures installed in compliance with program guidelines, Utah Field Guide and SWS's
 10. Assessment and verification of Health & Safety measures installed in compliance with program guidelines, Utah Field Guide and SWS's
 11. Assessment and verification of general heat waste measures installed in compliance with program guidelines, Utah Field Guide and SWS's
 12. Assessment and verification of compliance with ASHRAE 62.2 installed in compliance with program guidelines, Utah Field Guide and SWS's
 13. Review Client Education items and materials with the client , complete & obtain the client's signature on the Weatherization Final Inspection & Partnership Agreement form found under Attachment 9
- ii. If a QCI Final Inspection cannot be completed the job cannot be reported as a Weatherized Unit as defined in A5. The job shall be reported as a Partial Weatherized Unit in the WebGrants system and closed out.
- iii. DOE Program Notice 11-03 Return/Call Back Work on Completed Units prohibits a local agency from returning to a dwelling that has been reported as a completion to DOE, with DOE funds. Any cost for Call Back work from DOE funds will be disallowed.
- iv. Division of Housing & Community Development realizes situation will arise that require an agency to return to a completed dwelling. Agencies shall ensure this work is charged to other eligible funding sources, such as LIHEAP.
- v. If a situation arises where it is found that a dwelling unit was not properly completed during the original Weatherization, the agency is to complete that work and submit an amended BWR to the Division of Housing & Community Development and the dwelling unit is not to be counted as a new Weatherization completion.

- vi. No more than five percent of the homes completed where material costs did not exceed \$50 can be reported as a completed home without prior approval from the Housing and Community Development. **Final inspections must be completed and BWR's must be submitted to HCD no more than 90 days after completion of physical work on the home.** *See Attachment 9.*
- vii. The Department of Energy has defined a DOE completed unit as follows:
 - 1. A DOE Weatherized unit is: "A dwelling unit on which a DOE-approved energy audit or priority list has been performed. As funds allow, the appropriate measures installed on this unit have an SIR of 1.0 or greater, but also may include any necessary energy-related health and safety measures. The use of DOE funds on this unit may include but are not limited to auditing, testing, measure installation, inspection, use of DOE equipment, vehicles, or DOE provides the training and/or administration."
 - 2. Therefore, a dwelling unit that meets both the definition of a DOE weatherized unit and has DOE funds used directly on it must be counted as a DOE completed unit.

B11.6. High Energy User Program (HEP)

B11.6.a. Program Intent

- i. The goal of this program is to contact HEAT recipients with a unusually high energy burden and find ways to reduce their expenses using known effective weatherization measures & client education. Reasonable repair or replacement of non-traditional systems in the home that are causing energy burden may be addressed when investigation and analysis has identified them.
- ii. Only Crisis funds may be used to conduct work under this program.

B11.6.b. Client Qualification

- i. Only owner occupied single family dwellings will be serviced under this program.
- ii. Agency needs to obtain a signed Weatherization application that grants Right of Entry and Right of Alteration of Structure.
- iii. Agency will create and maintain for a minimum of 3 years, a Client File. In general this file would contain all the required documents a normal Weatherization or Crisis job would contain. There may be allowances for the differences this program creates.
- iv. Agency needs to obtain 12 prior month utility billing information on the client for a Baseload Evaluation. Client provided bills are acceptable.

B11.6.c. Client Home Evaluation

- i. There needs to be a methodical analysis of the client home to determine the most effective actions to be undertaken on the client home. This does not necessarily mean a full Energy Audit every time.
 - 1. The agency needs to determine if the home has received prior weatherization.
 - 2. A Prior-WX home shall get a Baseload evaluation and verification of WX Measures previously installed.
 - 3. A Non-WX home shall get an Energy Audit and a Baseload evaluation.
 - 4. Health & Safety provisions of the program still apply to homes serviced under this program.
- ii. The purposed measure need to be clearly scoped with a brief justification of how the measure will result in energy savings when not doing an audit.
- iii. Fuel switching is permitted under this program with a calculated SIR. Fuel switching to a non-metered fuel is not permitted without written permission from HCD.

B11.6.d. Production

- i. All work should be done in a manner that complies with the State of Utah Weatherization Guidelines. This includes all testing, forms, 3rd party compliance (LSW, RRP, SHPO) etc... as applicable to the work being done on the client home.
- ii. Worst Case Draft Testing rules as covered in Section *B9.4.h Worst Case Draft Testing* apply to these projects.

B11.6.e. Final Inspection

- i. A Final Inspection, by a person other than those responsible for the work, is required. The inspection will still be documented on the Final Inspection Partnership Agreement form and the applicable sections of the QCI form.
- ii. A QCI may be conducted but is not required at this time.

B11.6.f. Reporting

- i. Completions will be reported in WebGrants using the BWR and by selecting the HEP radio button on the form. Other data will be filled out as applicable.

SECTION C: APPLICATION PROCESS

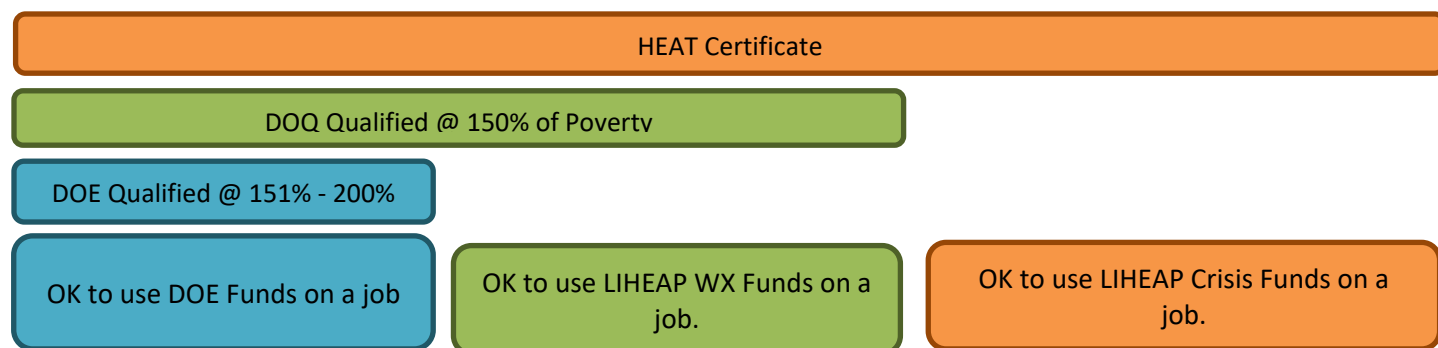
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C1. WEATHERIZATION PROGRAM ELIGIBILITY (DOE)

A client must complete the weatherization application and provide all appropriate documentation in order for an agency to determine a client's eligibility to the weatherization program. The agency is responsible to compile and store each client's information and documentation as proof of program eligibility. Client information must be available for inspection upon request by the Grantee or Grantor.

C1.1. LIHEAP Qualification Chart



C1.1.a. Requalification rules are under C1.10.f Income Re-qualification.

C1.2. Client Application

- C1.2.a. A uniform application process will be implemented by all local Weatherization agencies. Standardized application documents will be used with the only changes allowed being the addition of local agency identification information. (See Attachment #3 WAP Application)
- C1.2.b. Applicants will be given at least 60 days from the date an application is submitted to return to the agency any missing or incomplete documentation. At least two agency follow-up contacts (letter, phone call, e-mail, etc.) will be made to attempt to obtain the missing documentation.
- Example - After processing an incomplete application the agency sends a letter to the applicant notifying them they have 30 days to respond with required documentation. At 31 days the agency can send a 2nd letter notifying the applicant that if they do not respond in 30 days their application will be closed and they are welcome to reapply.
- C1.2.c. The local agency shall forward to the State WAP Office any weatherization or crisis service call application that could be construed as a conflict of interest. For the purpose of this section conflict of interest is defined as:

Conflict of interest – A situation that has the potential to undermine the impartiality of a person/agency because of the possibility of a clash between the person's/agency's self-interest and the professional interest of the weatherization program.

- i. Examples of applications that involve the following individuals shall fall under this classification. Be advised this list is not all inclusive and does not represent all possible scenarios where a conflict may exist.
 - An agency employee, their immediate, or extended family members
 - Governing board member, their immediate, or extended family members
 - Significant others or individuals who may cohabitate with employees or governing board members.
- ii. The State WAP Staff will review and endorse compliant applications returning them to the agency for activities approved under the program. All conflict of interest projects will be subject to 100% monitoring by State WAP Staff.
- iii. When the conflict of interest involves an individual at the local agency who is in a leadership or decision making capacity they shall recuse themselves from decisions involving that applicant/client.

- iv. The agency, in consult with the State WAP office, may turn over to the State WAP Staff particular responsibilities of the weatherization or crisis service call process as a means to mitigate the conflict of interest issue.
- C1.2.d. HCD shall forward to the DOE Project Officer any weatherization application received from an agency that involves, in any way:
- A State WAP employee
 - A State WAP staff extended family member

C1.3. Determination of Income

- C1.3.a. Delete
- C1.3.b. The current version of DOE's Definition of Income is to be used to determine if an applicant is income eligible for Weatherization. According to DOE's Definition of Income, there are five ways an applicant can be determined income eligible:
- i. DOE's Definition of Income is used to determine their household income is at or below the accepted federal poverty level.
 - ii. They are a qualified for the HEAT Program. This is done by obtaining a HEAT Certificate from SEAL Works.
 - The Date of Award on the HEAT certificate must be within 12 month of the Application Date.
 - The Date of Award on the HEAT Certificate must be within 12 months of the Work Start Date.
 - A copy of the Application Summary is NOT acceptable as qualification for the HEAT program.
 - iii. Their residence is listed on one of the HUD Multifamily Properties Eligible lists for Weatherization Assistance lists.
 - iv. They have qualified for assistance under Title IV of the Social Security Act as administered by the State of Utah.
 - v. They have qualified for assistance under Title XVI of the Social Security Act.
- C1.3.c. The current income eligibility limit is 200% of the federal poverty level. The eligibility limit was changed from 150% to 200% in 2009 (see 10 CFR 440.22).

C1.3.d. DOE’s current Weatherization Program Notice (WPN CY-3) Poverty Income Guidelines and Definition of Income and all applicable attachments shall be used:

- As the official definition of income
- For guidance on what is allowable Proof of Eligibility
- For guidance on how to annualize income
- As the official list of the current program Income guidelines.

This document can be found at waptac.org under Program Guidance.

C1.4. **Proof of Income Eligibility**

C1.4.a. Proof of Income shall be provided for every household member listed on the application that is 18 years old or older.

C1.4.b. The applicant must provide proof of all household income using one of the methods listed below. This information shall be retained in the client file. To align income information with the published tables the local agency may need to annualize the income information provided (see Section [C1.3](#). For annualization guidance).

- i. Proof of gross income earned for the applicable tax year.
 - Annualization may be required. See [C1.5 Income Annualization](#)
 - Income is defined in the most current version of Department of Energy Weatherization Program Notice (WPN) *xx-3 Program Income Guidelines*
- ii. A HEAT Program eligibility sheet, from the SEAL WX Search or copy from a Tribal HEAT program, showing proof client was deemed eligible.
 - **(Ref. 10 CFR 400.22** “is eligible for assistance under the Low-Income Home Energy Assistance Act of 1981”
 - HEAT qualification does not constitute weatherization approval. All aspects of the weatherization program eligibility must still be met.
 - Because the Utah WAP has opted to allow the LIHEAP to determine income eligibility, agencies are required to accept current proof of LIHEAP eligibility as proof of income eligibility.
- iii. If an applicant is self employed, **Attachment # 3 “Self Employment Ledger Form** must be completed and all verification the form requests must be included with the application to verify income. (See Attachment #3 WPN 11-5 B. 2. & D.3.)

- iv. If a tax return is used as income verification, an IRS transcript of the prior year's tax filing must be provided. To obtain a transcript, applicants must submit form 4506-T to the IRS.
 - The requested year or period shall be the most recent tax year.
 - The qualification process cannot be completed until a transcript is received from the IRS.
 - Only copies received from the IRS will be used.
 - Copies provided by the applicant are not valid. Tax preparation software is readily available for individuals to prepare returns which may be different from the copies filed with the IRS.
- v. Routine monthly income checks from retirement funds or any other monthly checks, will be counted towards income for the month they were intended, not the month they were received.
- vi. Other checks will be counted based upon the date of issue, not the date cashed or deposited and must be annualized according to reoccurrence.
- vii. After all other avenues of documenting income eligibility are exhausted, self-certification is allowable. However, evidence of the various attempts at proving eligibility must be contained in the client file. When the applicant or any adult in the household does not have a source of income, **Attachment #3 Income Deficient Statement** must be completed and notarized.

C1.5. Income Annualization

- C1.5.a. Income qualification for the Weatherization program is based on gross household income during the previous 12 calendar months, or during the applicable tax year. If a client is unable to provide a complete 12 month record of gross household income, the local agency must annualize the client's income information for adaptation to the Annual Poverty Income Guidelines chart.
 - i. Applicable Tax Year – Is the most recent 12 consecutive month period for which the applicant has filed their income tax return.
- C1.5.b. An applicant cannot be rejected because they cannot provide a complete 12 month record of income. A minimum of 1 month of income for the previous calendar month is required as proof of income eligibility.

- C1.5.c. If a client receives a periodic payment, such as a quarterly or bi-monthly payment, the payment may be annualized according to its frequency so long as proof of frequency is provided. If no proof of frequency can be provided the payment must be added to the gross amount for the period and annualized accordingly.
- i. **Example:** Client is paid twice a month by their employer. Client is required to present consecutive paycheck stubs showing their gross pay for the previous calendar month. The agency would then add the gross pay for the month and multiply the monthly income by 12 to determine the gross annual income.
 - ii. **Example:** Client has provided two bi-weekly paycheck's in previous example along with a pension check for \$5000 which the client claims is an annual payment. If the client is unable to provide proof of the frequency of the pension check the amount of the check must be added to the two bi-weekly checks and multiplied by 12 to determine the gross annual income.

C1.6. Residency Status

- C1.6.a. To be considered for eligibility all applicants must be a US Residents, or a "Qualified Alien". Proof the this status must be in the Client File. A valid HEAT Certificate is adequate back up for that proof.
- i. US residents would typically have a birth certificate from the US or Social Security card.
 - ii. Qualified Aliens are residing in the US in a legal status and are in possession of documentation that indicates that status. Please refer to Attachment #3 - Form M-396 Attachment
 - iii. Any applicant who cannot produce documentation indicating citizenship or qualified alien status are not eligible.
 - iv. Social Security numbers will be requested for all residents 18 or older. This is needed to identify employment using E-Share or E-Rep. Refusals to provide this information will be dealt with by the local agency on a case-by-case basis. A copy of the Social Security Cards is required.
 - v. **Total income from all of the occupants of the home must be counted, but only those individuals that are citizens or qualified aliens will be counted towards the Total in Household count when determining priority points.**

- vi. When the eligible applicant is a minor child they cannot be denied services. A parent or legally appointed guardian may apply on their behalf, regardless of that person's citizenship status. Additional documents may be needed such as proof of guardianship or paternity/maternity when a HEAT Certificate is not present.

C1.7. Proof of Property Ownership

C1.7.a. The intent of determining property ownership is:

- Gaining right of entry
- Gaining right to conduct WX activities and alter structure
- Determining if the applicant has the right to grant the above permissions
- Verify age of construction for SHPO & LSW
- Determining if the legal owner of the property is using the property as income generating property. If the applicant/occupants are paying money to the legal owner for the right to occupy the property is should be treated as a rental unless further documentation can be provided.

C1.7.b. To aid in the certification of home ownership issues where the property is not clearly owned by the applicant, **Attachment #3 Declaration of Ownership and Occupancy** form has been created. This form must be used in all situations where the client is not listed on the government records as the owner or **Attachment #3 – Income Property Owner Weatherization Agreement** has not been provided.

C1.7.c. Local agencies can accept the following as verification of property ownership when the applicant information matches these records:

- i. Property tax records or other government records
- ii. Legal copy of a recorded deed. (Typically recorded within 12 months or less of the application.
- iii. DMV title
- iv. Promissory notes and or purchase contracts may be also used as ownership verification in mobile homes if the note has been in force and if the client has been living in the home at least two years

C1.7.d. When the dwelling unit is located on Tribal Lands the applicant does not need to provide proof of ownership. When possible the agency should obtain a copy of the Home Site Lease or Chapter Certificate of Residency.

C1.7.e. When an agency becomes aware, either through documentation provided by the client or a search of County property records, that the property taxes are four or more years delinquent on the application property, the application will not be accepted until the taxes are brought current

C1.7.f. Notes:

- i. It is the intent that the local agencies have the flexibility to address mitigating circumstances where the legal owner of the property is allowing the applicant/resident to occupy the property as owner. It is important that the agency document the methods use to arrive at their decision. **Attachment #3 Declaration of Ownership** is available for this.
- ii. Quitclaim deeds, warranty deeds and other similar types of documents are not proof of ownership and will not be accepted.
- iii. A DMV property tax notice is not proof of ownership for mobile homes, unless the mobile home is on land owned by the client and they receive a property tax notice from the county assessors' office
- iv. An individual holding a power of attorney for a deceased person cannot grant permission to enter and perform work on a home.
- v. The person(s) shown on the County records, or other proof of ownership records provided, as the owner(s) **must** be the same person whose signature appears on the WX application, **Attachment #3 Declaration of Ownership** or on the **Attachment #3 – Income Property Owner Weatherization Agreement** in the case of a rental. If this person is deceased, the home cannot be weatherized.

C1.8. Eligible Dwelling

C1.8.a. To be considered an Eligible Dwelling unit the applicant's residence should meet the following:

- i. A dwelling unit is a permanent structure such as a:
 1. Single family dwelling (house)
 2. Townhome
 3. Apartment
 4. Studio Apartment
 5. Cottage
 6. Condo
 7. Manufactured home

- Installed on permanent foundation
 - Installed on a support system with a tie-down system
8. Mobile home
- Installed on permanent foundation
 - Installed on a support system with a tie-down system
9. Shelter
- ii. An eligible dwelling unit is typically permanent in nature. Usually this means it would require significant disassembly or major disconnection of utility services before it could be moved. Things to consider are:
- A hitch or other device to be used for towing.
 - Is not self-propelled.
 - Does not have operable axles, tires or wheels
 - Cannot be easily moved or relocated.
- iii. Not connected to public utilities. This is applicable when public utilities are reasonably available, service has been disconnected, etc..
1. No repairs and or replacements of heating system and water heating equipment **will** be completed until utilities have been restored to the home. (when applicable)
 2. Repairs may be undertaken if they are necessary to restore the utilities. (e.g. a Red Tagged furnace)
 3. The local agency may defer weatherization if utilities are anticipated to be restored in a reasonably short period of time.

C1.8.b. Basement Apartments, Mother-in-Law additions and similar situations:

- i. When a single family dwelling has been modified to accommodate a renter or additional extended family the dwelling will still be treated as a single family dwelling by this program regardless of the individual compensating the owner.
- ii. Indicators that the dwelling meets this category are:
 1. Single HVAC system for the whole building.
 2. The “apartment” does not have an independent thermal & air barrier.
 3. The unit has single meters for utilities.
 4. The building is recorded by the county as a single family dwelling.
- iii. Qualification of these units will be inclusive of all occupants income to program standards.

- iv. It is acknowledged these non-traditional situations can be complicated and the local agency should consult with State WAP to ensure the correct approach.

C1.9. Ineligible Dwelling

C1.9.a. No funds shall be used to weatherize a dwelling unit which is not eligible as defined in *C1.6 Residency Status*, or when any of the following apply:

- i. Dwellings that have been previously weatherized.
 - If the dwelling unit was previously weatherized and has an Approved Date less than 15 years from the date the applicant signed the application, it shall be considered ineligible for weatherization.
 - If the Approved Date greater than 15 years from the Application Date, date the applicant signed the application, it shall be considered eligible for weatherization and reported as a Reweatherized Unit
 - Local agencies must verify this status by address using agency or Housing and Community Development files.
- ii. Dwelling is vacant or not being occupied
- iii. Designated for acquisition or clearance by a federal, state, or local program.
- iv. Dwelling has been foreclosed
- v. A dwelling is not eligible for weatherization unless it is the present and primary residence of the applicant. (summer homes, cabins, or other part time residences are not eligible.)
- vi. The applicant has plans to move from the property within 12 months of completion.
- vii. A “For Sale” sign is observed
 - The home will be ineligible for any weatherization services for a period of 12 months.
 - If weatherization has started, the agency must determine if the weatherization should continue based on what has already been installed and/or purchased for the home. Details of the action taken should be recorded in the client file. The Housing and Community Development must first approve variations from this in writing.
 - Crisis should be treated similar to rental units. The goal is to mitigate only the crisis, in the most economical way. The intent is to attempt to repair the unit when it is more cost effective than total replacement. If replacement is

necessary the local agency shall follow the general crisis policy in [A1.4 LIHEAP Energy Crisis](#).

- viii. Dwellings that are in a state of remodel or similar situations that have repairs which would exceed the scope of an IRM should be considered ineligible until the resident or owner can remedy the situation to a level that allows effective weatherization. These applicants should be referred to a home rehab or similar program for assistance.

Example: Auditor arrives at dwelling and finds 1 or more rooms missing interior finish surfaces on the pressure boundary of the building, like drywall or paneling. Since there is no air barrier to even asses for air sealing the dwelling would be ineligible.

C1.10. Weatherization Priority Rating System

C1.10.a. Priority Rating System

- i. If there is less than a 2 month backlog assistance shall be provided on a first-in first-out basis.
- ii. If there is more than a 2 month backlog the local agency shall create a Priority List.
- iii. Upon qualification of an applicant the local agency will assign a priority using the format in Section [C1.10.b](#). This will determine placement on the agency's Priority List.
- iv. Definitions:
 - **Energy User Percentage** - The most recent 12 consecutive month consumption, from date of application, of the applicant's metered primary heating fuel divided by Utah average energy usage. (6540kWh and 59.5dth)
 - **Energy Burden Percentage** – The sum of expenses of the most recent 12 consecutive month, from date of application, of the applicant's metered utilities divided by their annualized household income. This would typically be natural gas & electricity.
 - **Non-Metered Fuel** – A primary heating fuel that is not metered by a utility provider. These fuels would be:
 - Coal
 - Oil
 - Propane

- Wood
- **Wood Fuel** – The primary heating fuel of the dwelling is a stove or fireplace burning wood, wood pellets or similar fuel source.
- **Elderly** - Any individual who is at least 60 years of age.
- **Disabled** - Any individual (1) who is a disabled individual as defined in Section 7(6) of the Rehabilitation Act of 1973, (2) who is under a disability as defined in Section 1614(a) (3)(A) or 223(d)(1) of the Social Security Act or in Section 102(7) of the Developmental Disabilities Services and Facilities Construction Act, or (3) who is receiving benefits under Chapter 11 or 15 of Title 38, U.S.C. (4) who has a letter from a physician stating that the disability will exist longer than six months, (5) who has a visible confirmation by Weatherization staff that there is a disability, or (6) who has a disability confirmed by the HEAT program.
- **Pre-School age Children** - Anyone that is under the age of six (6) years old. These children are considered to be at additional health risk because of their young age and the fact that in many cases they will be in the non-weatherized dwelling during the entire day.

C1.10.b. Priority Rating System

a.	The household has Elderly or Disabled living in residence (25 points)	
b.	Preschool children reside in the household. Add 3 points for each child under the age of six.	
c.	For every 6 months the application has been on file add 10 points.	
d.	Prior Weatherization of the dwelling unit subtract 10 points	
e.	Where household income: Under 75% of the poverty level add 40 points. 75% to 100 % of poverty add 30 points 101% to 125 % of poverty add 20 points 126% to 150 % of poverty add 10 points 151% to 175 % of poverty add 0 points 176% to 200 % of poverty add 0 points	
f.	Where Energy User Percentage is: 125% and greater add 20 points 120% to 124% add 15 points 115% to 119% add 10 points	
g.	Energy Burden Percentage is: 25% and greater add 20 points 20% to 24% add 15 points 15% to 19% add 10 points	
TOTAL POINTS		

C1.10.c. Priority List Deviations:

- i. A local agency may deviate from the Priority List when:
 - 1. Coordinating with housing rehabilitation with other entities or programs. (Self Help is not approved for this exception)
 - 2. Coordination of agency services due to geographic reason.
 - 3. Agencies with large geographic service areas may move clients up the Priority List, with documentation, when it is in the best interest of the program to conserve program funds.
 - 4. Local agencies may weatherize a LIHEAP Crisis client when documented circumstances show it is in the best interest of the program. (e.g. post-weatherization furnace sizing would not be adequate to heat the home)

C1.10.d. Client Moving

Approved clients living in an approved residence that move before receiving services will retain their original priority listing when they reapply.

C1.10.e. Multiple Applications

Clients can apply multiple times. Clients may not have more than one active application at a time. Individuals receiving Weatherization assistance within the last twelve months while residing at another residence shall receive assistance at their present residence based upon the applications Priority List ranking of their current active application.

C1.10.f. Income Re-qualification

Applicants waiting more than twelve months to be assisted must re-qualify their income based upon their current income and household size before the work can begin.

- i. The 12-month waiting period starts on the date of the income verification.
- ii. Income Verification for applicants qualified under DOE rules is the date the agency representative signs the application as approved.
- iii. Income Verification Date for an applicant with a HEAT Certificate is the Date Awarded on the HEAT certificate. That is the date a person verified that person's income. It is NOT the agency verifying the HEAT certificate.
- iv. Time ends when the first work starts on the home (crisis work, audit, etc.).
- v. A copy of the re-certification documentation must be placed in the client file.

C1.11. Denial of Service

- C1.11.a. Service may only be denied when the applicant fails to qualify for the program.
- C1.11.b. If an income eligible applicant occupies a structure that is not an eligible dwelling unit, they are to be referred to a local housing provider for available housing assistance, when applicable. Any deviation from this policy will require written approval from the Housing and Community Development

C2. LIHEAP WEATHERIZATION PROGRAM ELIGIBILITY

Starting with 2012 -2015 LIHEAP contract weatherization qualification will follow the same process and require the same documentation as *C1 Weatherization Program Eligibility (DOE)*.

C3. CRISIS SERVICE CALL PROGRAM

C3.1. Crisis Policy

- C3.1.a. General: A Crisis Service Call is a different and independent activity from a weatherization project:
 - i. The applicant would be either a referral from a HEAT Office or
 - ii. An applicant contacts the Agency directly and is HEAT qualified or
 - iii. The agency identified an eligible Crisis Service Call activity while on site of a current qualified or eligible client Crisis Service Call client. This provision could supersede Section C3.5.
 - iv. The work done is in response to an occurrence that is specified on the crisis application or the agency identified the issue while on site.
 - v. The Crisis Service Call program is not a rehabilitation program. It repairs or replaces existing systems only and/or it mitigates significant losses of energy that impact the household. New systems may be installed for both No Heat and Cooling with case by case approval from State WAP.
 - vi. Weatherization clients who are on the waiting list and have a Crisis Service Call can be treated 2 ways.
 - 1. They may be moved up the priority list to address the Crisis Service Call and all regular weatherization activities. This must be a Weatherized Units per Section *A5 Weatherized Unit* of the guideline and their file closed.

or

2. They may be served as a Crisis Service Call client and only the issue causing the crisis will be addressed. The Crisis Service Call will then be closed out and reported according to Section *C3.10 Client File*.
 - vii. Weatherization clients that do not have a HEAT Certification as part of their qualification will need to apply, and be approved, for HEAT Certification prior to working the on the Crisis Service Call.
 - viii. The primary use of LIHEAP Crisis funds are for the heating season. There are situations where a Cooling Crisis may arise. Caution should be exercised in expending LIHEAP Crisis funds to ensure availability of services during the No Heat season.
 - ix. Dominion Energy funds may be used to supplement LIHEAP Crisis funds for Dominion Energy clients.
 - x. Crisis Service work is a benefit we provide on behalf of the HEAT Program. There will be times that the general rules of Utah WAP create conflicting issues with this service. The Utah WAP Office should be contacted to work with the local agency to authorize work to ensure we are delivering service that meets the needs of the HEAT Program.
- Example:** A HEAT Approved applicant lives in a RV on their own land with a permanent address.
- xi. Final inspections of Crisis Service work shall be conducted. This inspection shall meet all the requirements below:
 1. Inspection by a qualified individual. This is not to imply they must be a QCI certified individual.
 2. Inspection shall take place prior to payment of contractors
 3. Inspection shall be documented on an agency generated form and retain in the Client File
 4. Inspection shall account for all materials charged to the job
 5. Inspection shall verify work conforms to Utah WAP standards such as the Utah Field Guide and Weatherization Guidelines

C3.1.b. Definitions:

Crisis Service Call - An immediate risk to the occupants of an eligible dwelling due to one of the following:

- i. No Heat Crisis – the primary source of heat for the dwelling is not operational within normal limits. This would include:

- High CO level (100ppm or higher)
 - Cracked heat exchanger
 - Any measureable CO in the supply air stream
- ii. Cooling Crisis – A “Target” home where the primary source of cooling is not operational
- iii. Water Heater Crisis – A home with “Target” clients that the primary source of water heating is not operational. Target rules do not apply if the agency is using Dominion Energy Funds

“Target”= Elderly, Disabled, Pre-School age children

- iv. Agency Identified Work – During the course of authorized program activities agency staff may identify work that is allowable under the Crisis Service Call Program and take the necessary steps to mitigate the issue. These measures could include:
1. Programmable, smart or setback thermostats
 2. Ceiling, wall, floor, perimeter and duct insulation
 3. Window and door replacement
 4. Air infiltration reduction
 5. Solid fuel burning stoves
 6. EC Motors
 7. Knob & tube wiring abatement

Work shall be performed to established weatherization program standards including all required testing, forms, justifications, or other documentation as covered in Section B8. Et.al.

- v. Incidental Work – Additional work created by the actual crisis service call. It shall be included in the cost of the Crisis Service Call. (e.g. A new furnace is installed and it causes an orphaned water heater to no longer draft. The cost to fix this problem is part of the Crisis Service Call) When trying to determine if the Incidental Work is allowable, State guidance would be comparable to an IRM or HSM in weatherization.
- vi. Deferral of Service – Crisis Service Call work will use the same deferral process as Weatherization covered in Section E5. When considering deferral of Crisis Service Call work the local agency should take in to consideration that is a crisis and all reasonable effort should be made to resolve it.

- vii. New System – A new system means installation of HVAC equipment that is not similar in function to the existing HVAC system or there was no existing source of heating or cooling in the home. (e.g. Home has existing boiler system and agency is considering ducted forced air or mini-split. Or Home has evaporative cooling and agency is considering refrigerated forced air.)

C3.1.c. Allowable Costs

- i. The Administration funds for this budget category are included in the LIHEAP allocation so no additional Admin charges are permitted.
- ii. The T&TA costs associated with this Crisis Service Call program are included in the LIHEAP T&TA budget category.
- iii. Program Operations costs associated with operation of the Crisis Service Call Program are allowable charges to this budget category. Some of those allowable costs would be:
 - Labor & fringe to determine crisis needs (diagnose, preliminary site assessment)
 - Labor & fringe to install a crisis measure
 - Materials used for the crisis
 - Fuel & vehicle insurance used getting to the crisis job
 - Labor & fringe to conduct intake and application processing of the Crisis Service Call Applications
 - Labor, fringe, and the cost to purchase, transport, warehouse, & deliver crisis materials
 - Temp space heaters loaded to qualified clients

C3.2. Crisis Service Call Application

- C3.2.a. A uniform application process will be implemented by all local agencies. Standardized application documents will be used with the only changes allowed being the addition of local agency identification information. (See Attachment #3 Energy Crisis Application)
- C3.2.b. The local agency shall follow the Conflict of Interest policy as outlined in [C1.2.c](#) for Crisis Service Call applications.

C3.3. Verification of HEAT Eligibility

- C3.3.a. Once a signed Crisis Service Call Application has been obtained the local agency shall conduct a search of the SealWorks system to obtain a copy of the HEAT Qualification certificate.
- C3.3.b. If the applicant listed is not in the system you cannot search under another name without the signature of that person on the application.
- C3.3.c. A copy of the HEAT Certification shall be placed in the Crisis Service Call File.
- C3.3.d. At the local agency's discretion they may develop a written policy that is submitted annually as part of the Weatherization Operations Plan which will detail how the agency will allow for the use of Dominion Energy Funds for Dominion Energy clients on Crisis Service Call whose households are 151%-200% of poverty under DOE rules.

C3.4. Proof of Property Ownership

- C3.4.a. The intent of determining property ownership is:
 - Determine if the crisis location is a Income Property
 - Gaining right of entry
 - Gaining right to conduct Crisis Service Call activities and alter structure
 - Determining if the applicant has the right to grant the above permissions
- C3.4.b. Agencies will use the same methods to determine proof of ownership as they would for regular weatherization. See Section [C1.7 Proof of Property Ownership](#).
- C3.4.c. If it is determined that the applicant is not legal property owner agencies will need to use Attachment #3 Declaration of Ownership & Occupancy.

C3.5. Income Property

- C3.5.a. The Utah Fit Premises Act ([Utah Code Title 57 Chapter 22](#)) requires the owner to maintain the heating system, hot & cold water system, & any air conditioning system.

- C3.5.b. Energy Crisis applications received that involves any dwelling that is considered a Income Property shall be denied when the crisis involves heating, cooling, or domestic hot water.

C3.6. No Heat Crisis

- C3.6.a. The primary heating system of a home may be repaired or replaced as a No Heat Crisis.

C3.6.b. Repairs

- i. Diagnoses and evaluation of existing systems prior to taking any action is a best practice that can help the agency avoid unnecessary expenses.
- ii. Attempts should be made to repair any existing system when feasible. When diagnosing and evaluating the system technicians need to be aware of the Repair Cost Limits: (materials only)
 - Repair cost % should be calculated against a new 90%+ single stage unit. (NG)
 - 1-5 year old central systems up to 40% of the replacement cost.
 - 6-10 year old central system up to 25% of the replacement cost.
 - 11 + year old central system \$400 maximum.
 - When repairs are anticipated to exceed the Repair Costs Limits above replacement may be considered.
 - Other fuels or non-forced air system consult the State WAP staff for guidance.

C3.6.c. Replacement

- i. New systems will meet all the specifications and installation requirements of a weatherization installation. This is to include:
 - Attachment #22 HVAC Best Practices
 - Attachment #22 New Furnace Install Checklist
- ii. Air conditioning can be included in the replacement when the existing system had AC and has been verified as operational.
 - Verification of the existing cooling equipment being operable within 12 months of the work start date shall be placed in the client file.
 - When the operation cannot be physically verified use of the previous year's billing history will be acceptable.

- When verification of the existing system's operation is not possible work shall be considered as "New Installation" and follows all applicable rules.

C3.7. Cooling Crisis

C3.7.a. The primary cooling system of a "Target" home may be repaired or replaced as a Cooling Crisis.

C3.7.b. Repairs

- i. Diagnoses and evaluation of existing systems prior to taking any action is a best practice that can help the agency avoid unnecessary expenses.
- ii. Attempts should be made to repair any existing system when feasible. When diagnosing and evaluating the system technicians need to be aware of the Repair Cost Limits: (materials only)
 - Repair cost % should be calculated against a new 13/14 SEER single stage.
 - 1-5 year old central AC systems up to 40% of the replacement cost.
 - 6-10 year old central AC system up to 25% of the replacement cost.
 - 11 + year old central AC system \$400 maximum.
 - Evaporative Cooler \$250 maximum.
 - When repairs are anticipated to exceed the Repair Costs Limits above replacement may be considered.

C3.7.c. Replacement System

- i. A replacement system can be installed when it has been determined necessary. It is recommended that a minimum 17 SEER or greater be installed. Consideration should be given to available rebates or other incentives.
- ii. New systems will meet all the specifications and installation requirements of a weatherization installation. This is to include:
 - Attachment #22 HVAC Best Practices
 - Attachment #22 Air Conditioner Start-Up & Performance Checklist

C3.8. Water Heater Crisis

C3.8.a. The primary water heating system of an owner occupied home may be repaired or replaced as a Water Heater Crisis. This home must include a Target Client as defined in [C3.1.b](#) The use of Dominion Funds are not tied to the Target requirement.

C3.8.b. Allowable causes for Water Heater Crisis are:

- Appliance is inoperable
- Appliance is leaking
- Appliance is producing High CO (200ppm (CO)₀ or higher)

When other issues are identified they should be addressed as part of the Water Heater Crisis. (e.g. gas leak, improper venting, inadequate combustion air, spillage or back drafting)

C3.8.c. The intent of this measure is not to increase the scope of work during weatherization by having the agency identify water heaters for replacement. Weatherization and Crisis Service Work are 2 independent activities performed by the agency. Their work, billing and reporting should stand on their own.

C3.8.d. When a water heater is being addressed under a Water Heater Crisis and it is installed in an unapproved location for a combustion appliance according to the current adopted residential or fuel gas code the agency shall bring the situation in to compliance as part of the Crisis. (e.g. install a direct vent appliance or moving it to an approved location)

C3.8.e. A non-mobile home approved appliance installed in a mobile home does not constitute a Water Heater Crisis. If the non-mobile home approved appliance has been “red tagged” by Dominion Energy their funds should be used to replace the appliance (not tied to target). When installing a new water heater the agency shall ensure that it is appropriately listed for the location that it will be installed (e.g. mobile home approved).

C3.8.f. A water heater that is being replaced as part of the weatherization process under Health & Safety is not a Water Heater Crisis. The use of Energy Crisis Funds to replace a water heater as part of weatherization is not permitted.

C3.8.g. Installation of a new appliance shall meet all the requirements of the current adopted building, plumbing, & fuel gas codes. This would include the installation of appropriate expansion devices, seismic restraints, shut off valves etc. When appropriate an insulation blanket should also be installed.

C3.8.h. Required testing & documentation will include:

- Combustion analysis (Do not drill holes in direct vent water heaters to get more accurate readings)
- Worst Case Draft Testing (as applicable)

C3.9. Reporting & Requesting of Funds

C3.9.a. Agencies are required to report their completed Crisis Service work on a monthly basis.

C3.9.b. Reporting will be through the WebGrants system and is due by the 25th of the month. If the 25th falls on a weekend or holiday, the reports will be due at the close of business on the following business day.

C3.9.c. When completing a BWR in the WebGrants system the agency will select a Crisis Only BWR and complete as much information as possible. When the Crisis Service was labor only they will be required to enter \$.01 for the system to accept the report.

C3.9.d. Fund requests will be submitted as part of the regular Weatherization process.

C3.10. Client File

C3.10.a. Agencies are required to maintain a client file for each approved applicant. This file may contain the required documentation of multiple Crisis Service Calls.

C3.10.b. Each client file shall contain:

- i. Application
- ii. Proof of HEAT approval. (This could be a HEAT certificate from a tribal ran program)
- iii. Additional ownership documentation as needed.
- iv. Required HVAC forms for the work done on the dwelling.
- v. Contractor or vendor invoices or other proof of payment for services. The contractor must list the materials they install.
- vi. Material inventory sheet from warehouse materials used on the job.

C4. CLIENT FILE REQUIREMENTS

All client file shall be available for each approved applicant and reported completion. These files must include the following:

C4.1. General

- C4.1.a. Agency may maintain separate LIHEAP Crisis Service Call files for each client served.
- C4.1.b. Client files should not contain documents/information that is not required to qualify the client and could be used for identity theft.

Each agency should have a policy in place to protect sensitive material in client files and applications in-progress to avoid identity theft including securing files under lock & key.

C4.2. Application Documents:

- C4.2.a. A completed Application (Crisis or Weatherization)
- C4.2.b. 3rd party Income documentation or Client Qualification worksheet with income documents. (such as)
 - HEAT Certificate
 - Pay stubs with Client Qualification worksheet
 - SSI or SSA letter with Client Qualification worksheet
- C4.2.c. Income re-certification when income data is not within 12 months of work start date.
- C4.2.d. Signed copy of “Income Property Owner Weatherization Agreement” (rental units)
- C4.2.e. Landlord Co-pay documentation (if applicable rental units)
- C4.2.f. Age verification of client homes. (**Must be from local government agency.** Use *Attachment #27* Alternate SHPO Age Verification if this can only be done via phone)
- C4.2.g. Verification of ownership details in file, including rental units

- C4.2.h. A longitude/latitude address established through the use of a Global Positioning System (GPS)
- Only required on dwelling units without a standardized street address
 - GPS address will be the required address reference for all client file records such as applications and BWR's and other documents related to the project
- C4.2.i. Fuel history or release forms
- C4.2.j. Proof of Citizenship or Social Security Card (copy)

C4.3. Energy Audit Documents

Audit files must include the following documents (See also *B9.4 Energy Auditing On-Site Procedures* & *B9.7 Standard File Formatting*):

- C4.3.a. A01 NEAT/MHEA Input Report
- C4.3.b. A02 NEAT/MHEA Recommend Measures Report (or approval document & Work Scope for EA-QUIP audits)
- C4.3.c. A03 Field Collection Forms & Notes
- i. Sketch of thermal boundary of home including walls, windows, doors, attics and foundations
 - ii. Documentation that refrigerator was tested
- C4.3.d. A04 PreWx Photos
- C4.3.e. A05 PreWx Blower Door report
- C4.3.f. A06 PreWx ASHRAE Estimate
- C4.3.g. A07 Health & Safety Assessment
- i. Applicant Health & Safety Evaluation completed prior to Weatherization
 - ii. Knob-and-tube wiring inspection/certification documents
- C4.3.h. A08 Lead Inspection Report
- i. XRF testing results if home was built prior to 1978 (if applicable)
- C4.3.i. A09 PreWx Worst Case Draft test

C4.3.j. A10 CO Analysis

- i. PreWx combustion tapes for all combustion appliances
- ii. Combustion Air Calculations for all Category I, II, III appliances

C4.3.k. A11 SHPO Strategy form

- i. For all homes requiring a 106 review the SHPO Review request & Pictures and the SHPO Approval Letter shall be included

C4.3.l. A12 Client Ed Documentation

- i. Notification of client receiving Renovate Right pamphlet (pre-1978 homes)

C4.4. **Weatherization Documents**

C4.4.a. reserved

C4.4.b. Furnace forms and Green sticker verification

C4.4.c. Combustion analyzer printout tapes: (non-solid fuel burning appliances)

- i. Furnaces
- ii. Water heater
- iii. Boilers
- iv. Wall Heater

C4.4.d. Pre and post blower door test results

C4.4.e. Work Orders reflecting all work done on home

C4.5. **Job Completion Documents**

Job completion documentation shall clearly show the actual cost of each measure, the funding source(s) that were used to pay for each measure, and that each measure, when required, was cost effective. Documentation shall be itemized to show all materials and labor for each measure and the funding source that was used to pay for each. The total of all receipts, invoices, and inventory materials shall reflect all work done and align with totals reported on the BWR.

C4.5.a. Weatherization partnership agreement

- C4.5.b. Material invoices
- C4.5.c. Material inventory sheets
- C4.5.d. Contractor invoices
- C4.5.e. Completed & signed final inspection sheets
- C4.5.f. Building Weatherization Report (BWR)
- C4.5.g. Rocky Mountain Power Addendum (RMP customer homes only)
- C4.5.h. Worst Case Draft forms or TecLog printout or electronic file
- C4.5.i. QCI Inspection Form
- C4.5.j. Client Completion Report or Job Cost by Measure Report

C4.6. Forms

The forms included in these guidelines (see attachments) shall be used by all local agencies and shall not be altered in any way without written approval from the Housing and Community Development.

C4.7. Record Retention

Client files and all other weatherization documents are required to be retained by local Weatherization agencies for a minimum of three (3) years following the reported completion or resolution of any CPA audit finding or recommendation.

Agencies are encouraged to develop a detailed retention policy to be included in their Weatherization Policy and Procedures manual.

C5. INCOME PROPERTY

C5.1. General

- C5.1.a. Both owners and renters shall be eligible to receive Weatherization assistance. This also includes subsidized housing.

- C5.1.b. In the case of renter occupied dwellings the goal of any weatherization project must be to assist low-income tenants as much as possible without excessive or undue enrichment to the property owner.
- C5.1.c. Landlords are not required to participate in cost sharing. Cost sharing was a practice where landlords would pay for a portion of the weatherization costs to avoid undue enrichment. DOE feels that weatherization does not unduly enrich a dwelling owner, and a client should not be denied weatherization because a landlord is unwilling or unable to participate in cost sharing.
- C5.1.d. Whenever renter occupied dwellings are weatherized, a signed ***Attachment #3 – Income Property Owner Weatherization Agreement*** must be obtained from the property owner before work can begin.
- C5.1.e. The local agency may accept the property owner’s authorized agent to act on behalf of the owner in the matters of the Weatherization Program when sufficient evidence has been presented to establish their authority in the eyes of the local agency.

C5.2. Shelters

Shelters may also be eligible for Weatherization services.

- C5.2.a. “Shelter” means a dwelling unit or units whose principal purpose is to house, on a temporary basis, individuals who may or may not be related to one another and who are not living in nursing homes, prisons, or similar institutional care facilities.
- C5.2.b. To determine how many dwelling units exist in a shelter count each 800 square feet of the shelter as a dwelling unit or it may count each floor of the shelter as a dwelling unit.
- C5.2.c. Documentation qualifying the shelter:
 - i. Program narrative
 - ii. Charter
 - iii. Other documentation clarifying the facility’s function
- C5.2.d. There are no requirements to document the eligibility of shelter residents.

- C5.2.e. Shelters are not rental units but ***Attachment #3 – Income Property Owner Weatherization Agreement*** needs to be completed and placed in the client file(s) indicating right of entry and right of alteration.
- C5.2.f. Shelters can only be weatherized with DOE and Rocky Mountain Power funds. ***LIHEAP and Dominion Energy funds cannot be used on these projects.***

C5.3. Owner Participation

- C5.3.a. Owner Cost Share: Owner Cost Share is the practice of requiring the owner of an income property to contribute a portion of the cost of weatherization to avoid undue enrichment of the owner. DOE does not feel that weatherization results in undue enrichment, and does not want a client denied weatherization if a landlord is unwilling or unable to participate in cost sharing. Owner cost sharing is allowed at the owner's discretion.

C5.4. Reserved

C5.5. Multi-Family Complex Qualification Requirements:

- C5.5.a. Use of DOE Funds for the Weatherization of income property:
 - i. Income eligible households must occupy sixty-six percent (66%) of the units in multi-family buildings.
 - ii. Income eligible households must occupy fifty percent (50%) of the units in duplexes and 4-plexes.
 - iii. The allowable maximum spending limit for the entire complex will be \$7105 times the number of qualified units.
 - iv. Written permission to enter and alter must be obtained from the owner(s) of every unit in the Multi-Family Building or Complex.
- C5.5.b. Use of LIHEAP Funds for Weatherization of income property:
 - i. LIHEAP Funds may only be used on the units that are income qualified under LIHEAP rules.
 - ii. The allowable maximum spending limit for the entire complex will be \$7105 times the number of LIHEAP qualified units.
 - iii. If the unit is both DOE and LIHEAP qualified the spending limit will only be applied to the unit once.

C5.5.c. Use of RMP and Dominion Energy Funds for Weatherization of income property:

- i. RMP and Dominion Energy funds may be used in conjunction with other program funds of qualified units when they are individually metered.

C5.5.d. Multi-Family requirements Based on Housing Type

- i. **Stacked Housing Units (Apartments, Condos, 4-plex's, etc.):** A whole building approach must be taken for multi-family housing buildings with units that are stacked on each other. Units cannot be weatherized individually. The whole building and all the units in the building must be weatherized together. It does not matter whether the units are individually metered or not. It does not matter if the units are individually owned, or not. These units would be reported as multifamily housing units.
- ii. **Row House without separation of systems (Town houses):** A whole building approach must be taken on row housing buildings that do not have a complete separation between units of building thermal barrier, air pressure boundary, and mechanical systems. The whole building and all the units in the building must be weatherized together. These units would not be reported as single family because the entire row house building would need to be weatherized. In this case, a row house building in which all units are weatherized will be reported as multifamily housing units.
- iii. **Applications for Stacked Housing and Row Housing without separation of systems:** When applications are received for individual units in a stacked multi-family building, or a row house without separation of systems, agencies should process the applications per Guidelines Section C. The agency should inform the applicant in writing that their unit cannot be weatherized until their whole building is qualified for the weatherization program. This is not a deferral. The applicant's file should remain open until their income eligibility expires, or until the whole building is qualified. Due to limited resources, it is not the responsibility of the Agency or the Utah WAP to proactively work to get buildings qualified, but agencies are required to provide a reasonable level of assistance to applicants and/or building owners in their efforts to get multi-family buildings qualified to be weatherized.
- iv. **Individually Metered Row House with separation of systems (Town houses):** If the unit is an individually metered row house where there is a complete separation between units of building thermal barrier, air pressure boundary, and mechanical systems, then the individual unit can be weatherized. The number of units in the building does not matter. It should be audited using the NEAT audit. It should be reported as single family housing.

- v. **2-Plex's, 3-Plex's, or 4-Plex's:** If the unit(s) are stacked, follow the guidance on Stacked Housing Units. If the units are Row Houses follow the guidance on row housing. For guidance on Basement Apartments, Mother-in-law additions and similar situations see C1.8.b

C5.6. Master metered units:

Master metered units shall be classified as either:

C5.6.a. Owner occupied:

- i. Typically this would be a mobile home in a park or a condo.
- ii. The applicant has title or ownership of the unit but not the property is on.
- iii. The park is master metered and the client pays a fee to the park owner.

C5.6.b. Income Property:

- i. Typically this would be an apartment building.
- ii. The applicant has no title or ownership of anything.
- iii. The building is master metered and fees are typically part of the rent paid.

C5.6.c. Upon classification of the master metered unit by the local agency they shall apply the other applicable rules of these guidelines accordingly.

C5.7. Refrigerator replacements in rentals:

Shall follow the guidance in section *B8.10.d Replacement Refrigerators*: and section *B9.9.b Evaluating Refrigerators*. If the refrigerator is audited and the SIR is 1.0 or greater:

C5.7.a. Client owns the refrigerator—No cost share

C5.7.b. Landlord Owns refrigerator—No landlord co-payment will be required

C5.7.c. Master Metered Units—Replacement will be based upon who owns the refrigerator as outlined above.

C5.8. Water Heater Replacement in rentals

Water heater replacements in rental units will be done under the same conditions as owner occupied.

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D1. HOUSING AND COMMUNITY DEVELOPMENT

The Housing and Community Development (HCD) shall be responsible for the administration of the State of Utah Weatherization Assistance Program. The Division will designate the State Program Coordinator who shall act on behalf of the HCD in matters pertaining to this program. As the state-administering agency, the HCD will:

- Prepare the annual state application package to the U. S. Department of Energy along with all required reports to the cognizant federal agencies.
- Monitor and evaluate the program at all local agencies according to the federal and state guidelines.
- Disseminate information to local agencies regarding the requirements of the program.
- Assist the local agencies in implementing policies and guidelines from all funding sources.
- Assist the local agencies in meeting the reporting requirements of the program.
- Assist the local agencies with training and technical assistance.

D1.1. Program Guidelines

D1.1.a. The state WAP staff shall develop, maintain, and publish the Weatherization Guidelines. These guidelines are a portion of the State Plan submitted to Department of Energy. These guidelines shall serve as the standard operating procedure for agencies that operate with funds administered under this program.

D1.1.b. Changes to the Guidelines will be in any of the following formats:

- i. **Utah Weatherization Program Notice (UWPN):** This can be used when the State receives a similar notice from DOE. It also can be used when there is a need to provide technical clarification, such as date changes. These documents should be considered as additions to the existing guidelines. The effective date of the notice will be considered the date implementation unless otherwise specified.
- ii. **Amendments:** When it is determined that a significant change is needed the state WAP staff may issue an amendment. This can be to address unspecified items not currently in the guidelines or used to rewrite a complete section. This document will be standalone in respect that it does not alter existing sections in the guidelines unless it is replacing an entire section. The amendment will be considered as part of the current guidelines and the effective date will be considered the date of implementation.

- iii. **Guideline Update:** These are the significant revisions to the guidelines and will require a republication of the entire document. Upon republication of the guidelines the effective date will be the date of implementation.

D1.1.c. It is the desire of the state WAP staff to develop and maintain a collaborative process when considering any changes to the program. Efforts will be made to solicit feedback to all proposed changes when practical and appropriate.

- i. Non-Review changes will typically be limited to technical or administrative changes that would not substantially affect how the program conducts operations. These changes would also be mandatory directed from DOE.
- ii. 14 to 30 Day Review changes will be the preferred method for changes. These draft changes will be published for sub-grantee review and comment for a specified period of time. Once the comment period has been closed a final version of the change will be published with an effective date of implementation.

D1.1.d. Anyone wishing to propose a change to the WAP Guidelines will be required to complete [*Attachment 01 – Utah WAP Guideline Change Form*](#) either using the online or paper form. Changes will be tracked using the [*Utah WAP Change Log*](#).

D1.2. [Utah Weatherization Field Guide](#)

D1.2.a. The field guide will serve as the technical standard to which weatherization work will be done. This document is maintained and published by the State WAP. It shall be cross referenced to the Standard Work Specifications established by DOE and NREL.

D1.2.b. Distribution of this document will be either hard copy or electronic and shall be made available to all employees of the program. Changes will be administered by the State WAP staff and issued using the UWP format in section [*D1.1.b.i*](#)

D1.2.c. Agencies that employ contractors are required to make a copy of the field guides available to the contractor and obtain documentation that they acknowledge receipt and compliance with the document.

D2. PROGRAM MONITORING

The monitoring program will serve as the Quality Assurance tool of the program. The sub-grantee is responsible for their agencies Quality Control. Monitoring is used to verify local agency compliance, identify training needs of the program, and receive feedback from the local agencies. The process is meant to be as non-disruptive as possible. Since the involvement of the local agency staff will be necessary the state WAP staff will make all attempts to coordinate their needs with the Program Coordinator. The monitoring process is not limited by time but shall be conducted as expeditious as reasonably possible. The state WAP staff may conduct any type of monitoring or other investigations at any time with or without notice.

D2.1. Annual Program Monitoring:

This is broken down in to 3 components, Programmatic, Production and Energy Auditing. These visits are scheduled separately so both State and local agency staff can focus on the specific area during the visit. Combined these 3 components represent a comprehensive monitoring of each local agency and will be conducted once a program year. There will be a Monitoring Instrument specific to each area. During the visit State staff may expand the scope of the monitoring at their discretion.

D2.2. Periodic Monitoring:

This monitoring will be focused in a specific area of the local agency's program (i.e Admin, Production, HVAC). The primary goal of this monitoring is to be a informal highly interactive process. It should be just as much about education as it is evaluation. This monitoring will also be used when working with the local agencies to resolve findings, areas of concern, or items noted during other types of monitoring. In addition to regular Pre-Monitoring the monitor will need to consider:

- D2.2.a. Develop a list of monitoring and training objectives in conjunction with the local Coordinator.
- D2.2.b. Identify any immediate training needs and attempt to deliver them during the monitoring.
- D2.2.c. Coordinate the monitoring to include members of the local staff in the area being monitored.
- D2.2.d. Coordinate local resources to support any training.

D2.3. Financial Monitoring:

This monitoring is focused on the financial systems in place at the local agency. This monitoring is conducted in addition to the required external audit mentioned in [A2.7 CPA Audits](#). This type of monitoring will also include a review of the required CPA audit.

Financial Monitoring will be done following DWS Contract Monitoring Procedure and Sub-Recipient Monitoring Procedure. This monitoring will be done by a DWS Fiscal Grant Manager and they will forward their report to the Utah WAP Manager.

D2.4. Desktop Monitoring:

This is a tool that can be applied to Programmatic, Technical, or Financial monitoring. The monitor requests the necessary documents from the sub-grantee and reviews them for compliance at their office

D2.5. Monitoring Process:

D2.5.a. Pre-Monitoring:

To maximize the time spent in the monitoring process the State Staff needs to be thoroughly prepared prior to conducting any type of monitoring. The following items need to be reviewed prior to a monitoring activity.

- i. Review previous monitoring letters.
- ii. Review previous Monitoring Summary Reports
- iii. Review previous Monitoring Evaluation Summary
- iv. Review current agency reporting spreadsheets.
- v. State WAP Staff will select sample sizes for technical monitoring according to the chart below adhering to DOE policy. Sample size deviates from DWS policy for selection of homes monitored since it conflicts with federal guidance.

Sub-Grantee	QCI Approach	Monitoring Sample Percentage
Bear River AOG	Auditor/QCI	10%
Salt Lake CAP	Independent QCI	5%
Mountainland AOG	Independent QCI	5%
Uintah Basin AOG	Auditor/QCI	10%
Southeastern ALG	Auditor/QCI	10%
6 County AOG	Auditor/QCI	10%
5 County AOG	Auditor/QCI	10%

D2.5.b. Annual Monitoring:

- i. A Tentative schedule of this monitoring will be published with the annual program update. As the tentative date draws near the staff will coordinate the specific date with the local agency.
- ii. These visits will follow the appropriate monitoring instrument for the type of monitoring taking place.
- iii. Each visit will conclude with an Exit Interview. For Energy Auditing and Production this will be held with just the Weatherization Coordinator, since these are more technical monitoring's. The Programmatic Monitoring visit will close with an Exit Interview with the Executive Director or equivalent of the administrating agency.
- iv. The state WAP staff will prepare a follow up Monitoring Letter within 30 days. The letter will summarize the monitoring visit, answer requests made at the time of the monitoring, list areas of needed improvement, and provide any other information or comments concerning the agency.
- v. For Energy Auditing and Production Monitoring the letter will be sent to the Weatherization Coordinator. The Programmatic Monitoring letter will summarize the results of the other monitorings in addition to the programmatic monitoring. Copies of this letter will be sent to the program coordinator, executive director and the board chair or equivalent.
- vi. The Monitoring Letter may require a response from the agency within 30 days of receipt.

D2.5.c. Periodic Monitoring:

- i. Monitoring as needed or in follow up to other monitoring findings.
- ii. Entrance Interview with local agency Coordinator.
- iii. A training component may be delivered during the visit.
- iv. Evaluations of the area monitored will be recorded on appropriate forms in Attachment #11. HVAC monitoring will be done using existing HVAC forms in the guidelines.
- v. Periodic Summary Monitoring Report will be completed and a copy provided to the local Coordinator.
- vi. Exit Interview will be conducted with the local Coordinator. The monitor will review the Summary Monitoring Report with the local Coordinator and clearly cover strengths & weaknesses and any required actions or responses.
- vii. Any deficiencies requiring a response must be received within 30 days from the monitoring.

- viii. At the conclusion of the monitoring a copy of the Summary Monitoring Report shall be forwarded to the Executive Director or equivalent of the administering agency. If deficiencies have been identified the Summary Report will be forwarded when the deficiencies have been corrected or within 30 days from the monitoring whichever comes first.

D2.5.d. Financial Monitoring:

Utah WAP will adhere to the DWS Sub-recipient Monitoring Policy

D2.5.e. Desktop Monitoring:

Utah WAP will adhere to the DWS Sub-recipient Monitoring Policy

D2.6. Agency Participation:

D2.6.a. Monitoring:

In order for the monitoring to be productive it is necessary for the local agency to provide complete cooperation and access. To ensure that the monitoring process is as transparent as possible agencies are invited and encouraged to participate in the following manner:

- i. Have a staff member present during all monitoring conducted by the state.
- ii. Have a staff member accompany client files into the field, or assist state monitors in following the local agency's file check out procedure.

D2.6.b. Monitoring Survey:

- i. Reserved

D2.7. Utah WAP Validation of 3rd Party Certifications

D2.7.a. This form of monitoring is conducted on an annual basis to validate the 3rd party certifications that are required by these guidelines.

D2.7.b. The IWTC will be the primary responsible party for an annual validation of the agency's required 3rd party certifications and will maintain a list of all current QCI's for the State of Utah WAP.

- i. At a minimum validation will consist of a review of the certification, assessment of CEU's, & evaluation of previous work. Additional criteria may be established by the IWTC at their discretion.

- ii. IWTC Staff will document any occurrences of non-compliance and maintain records of their validation process.
- iii. Written notification must be provided to the individual, the sub-grantee employing the certified individual, and the Utah WAP Program Manager when non-compliance issues are identified.
- iv. When it has been determined that non-compliance issues are systemic or of such magnitude as to justify cause the IWTC shall revoke the validation of the required 3rd Party Certification. At that time it will be determined what work signed off by the certified individual will or will not be accepted by the State.
- v. Written notification must provide cause for the revocation and outline a corrective action plan that would allow for retraining and revalidation of the certified individual. Once the validation is revoked no work may be accepted that the certified individual has signed off on.
- vi. It is not the desire of Utah WAP to disallow work that was signed off by a certified individual that has lost their validation, although that is an option. The preferred option is to allow a different certified individual to redo the work. If that requires the agency to contract with a neighboring agency or approved 3rd party that is acceptable.

D3. REPORTING

The State WAP Staff will conduct reporting to the DOE, LIHEAP, Dominion Energy and Rocky Mountain Power as required. Reporting needs to be completed by the 30th of each month.

D4. NON-COMPLIANCE

When it has been determined that a WAP sub-grantee is not in compliance with Utah WAP Policy, applicable HCDD or DWS Policy, contract terms and conditions, Utah state law, federal regulation or statute notification must be provided. Items noted during routine Annual or other monitoring activities do not necessarily constitute non-Compliance as covered in D4. Notification shall identify the issue(s) of non-compliance and specify a Corrective Action Plan that will include the steps needed to regain compliance. Below are remedies Utah WAP may use to address matters of Non-Compliance.

D4.1. Disallowance of Cost:

A disallowance of cost occurs when it has been identified that any funds administered under this program have been improperly expended.

- D4.1.a. The Executive Director, Director of HCD, Board Chair or equivalent will be notified in writing of the specific costs being disallowed.

- D4.1.b. Those funds will need to be reimbursed to the Housing and Community Development within 30 days of notification.
- D4.1.c. Disallowed costs cannot be reimbursed with any federal or program funds.
- D4.1.d. The local agency will be responsible to include all applicable amended paperwork as a result of this action.

D4.1.e. When the disallowed costs are from a current award on a contract that is underway a Reduced Draw shall be used. See A2.8.a. If the costs are from a closed contract funds must be returned via check.

D4.2. Disallowance of Job:

A disallowance of a job occurs when it has been identified that any funds administered under this program have been improperly expended to qualify, audit, weatherize, or report a unit. All funds associated with this unit maybe included in the disallowance.

- D4.2.a. The Executive Director, Director of HCD, Board Chair or equivalent will be notified in writing of the specific costs being disallow.
- D4.2.b. Those funds will need to be reimbursed to the Housing and Community Development within 30 days of notification.
- D4.2.c. Disallowed costs cannot be reimbursed with any federal or program funds.
- D4.2.d. The local agency will be responsible to include all applicable amended paperwork as a result of this action.
- D4.2.e. This disallowed job will be removed as a reported completion.

D4.2.f. When the disallowed costs are from a current award on a contract that is underway a Reduced Draw shall be used. See A2.8.a. If the costs are from a closed contract funds must be returned via check.

D4.3. Letter of Non-Compliance:

A letter of Non-Compliance is issued by the state Weatherization Coordinator to the sub-grantee as a formal notification that the agency is not in compliance with the rules and guidelines the program is required to operate under. While this notification is meant to serve as an opportunity to correct ongoing problems it also the first step in defunding of the agency.

- D4.3.a. A letter of noncompliance with copies to the U.S. Department of Energy, Director of HCD, and the board chair or equivalent will be sent.
- D4.3.b. Sensitive or significant noncompliance findings will be reported to the U.S. Department of Energy immediately.
- D4.3.c. Letters of noncompliance will include recommended solutions, due dates for correction of problems, and any penalties for failure to correct the problems.
- D4.3.d. It will be the responsibility of the agency executive director to respond, in writing, to the state Weatherization Coordinator and Director of HCD within 10 days that the non-compliant activities have ceased or been corrected. If immediate compliance cannot be achieved a detailed plan to bring the agency into compliance shall be submitted for approval.

D4.4. Agency Termination:

When the sub-grantee is not capable of bringing the agency in to compliance in the allotted time the Division shall be required to begin the termination process. This section shall serve as the Utah WAP policy as required in 10 CFR § 440.15(e)

- D4.4.a. When proceeding with termination the Utah WAP Manager will need to consult with DWS Counsel and ensure it is in compliance with Utah law, 2 CFR § 200.339 & .340 as well as the terms and conditions of the executed contracts in question.
- D4.4.b. A Notification of Termination will be issued to the sub-grantee. It will include:
 - i. Guidance for in production work.
 - ii. Disposition of warehouse inventory.
 - iii. Disposition of program equipment and property purchased with funds administered under this program.
 - iv. A sub-grantee will be afforded the opportunity to be heard in regards to this termination.
 - v. Notification will contain the required language prescribed in 2 CFR § 200.340(b)
- D4.4.c. HCD will act on Request For Funds per the guidance issued in the termination notice.
- D4.4.d. Notification to the Department of Energy.

D5. POLICY ADVISORY COUNCIL

D5.1. PAC Representation & Council members

- D5.1.a. The Policy Advisory Council for the LIHEAP and Weatherization Assistance Programs in the state of Utah is the ***Energy Advisory Council***. It will consist of members from a variety of backgrounds that have interests in energy conservation of the Target Groups associated with these programs. These representatives should come from groups representing low-income, elderly, disabled, Native Americans, & weatherization throughout the State. The members are listed in *Attachment 2*.
- D5.1.b. This Council will meet as a minimum twice a year prior to the Public Hearings of both programs. The meeting will provide an opportunity to review and provide comment on the proposed changes to the programs.

D6. HEARINGS AND TRANSCRIPTS

D6.1. Public Hearings

A notice of Public Hearing will be sent to all sub-grantees at least 10 days prior to the public hearing and will be advertised in compliance with Utah Public Meeting requirements. This hearing is to provide opportunity to present comments on to the Utah Weatherization Assistance Program State Plan prior to submission of the application to Department of Energy.

D6.2. Transcript

The public hearing for the program will be published in accordance with Utah state law for public meetings. The transcript from the meeting will be posted to the state Public Notice website as required.

D7. CONTRACTING POLICY & PROCEDURE

General:

Contracting of Weatherization funds will be done at the discretion of the Weatherization Program Manager. The Program Manager will serve as the Contracting Officer for the program

and manage the contracts. This will also include monitoring of the contracts as part of the Programmatic Monitoring that takes place annually.

D7.1. Pre-Award

D7.1.a.

Weatherization will not adhere to HCD Contracting Policy Section 0200.5 Applications for Fund. WAP Sub-grantees are not required to apply for funding. The program relies on the existing sub-grantees who have been part of the program since inception. The determination of a Sub-Grantee still being eligible to deliver services is covered in section B1. Agency Selection Criteria.

D7.1.b.

Prior to contracting funds for the Program Year the sub-grantees will submit their Weatherization Operations Plan to the State WAP Office as covered in program guidelines B1. 2.

D7.1.c.

Prior to contracting Wx Program Manager will:

- Create WebGrants Award Creation Form using data from the PY Allocation Formula
- Send WebGrants Award Creation Form to Financial Grant Manager to create award in WebGrants
- Verify sub-grantee status in SAM's.gov by printing screenshots and saving to shared drive.
- Create individual Attachment D Scope of Work for each sub-grantee dependent upon program needs. Scope of Work will contain the level of monitoring based on the Pre-Award Risk Assessment.

D7.2. Contracting

Wx Program Manager will create contracts and they will be circulated according to the graphic below:



Weatherization Contracting Process



D7.3. Contract Management

Wx Program Manager will manage the contracts over their life. Sub-grantees will submit Request For Funds (RFF) through the WebGrants system with appropriate back up documentation. Wx Program Manager will review the RFF and when satisfied all information is in compliance with the funding source rules will approve the RFF for payment and notify the Finance Grant Manager to process the request.

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E1. GENERAL POLICY

The Utah WAP has developed this Health & Safety Plan to ensure reasonable precautions are taken to protect clients and personnel. Contained in this policy are guidelines for identifying Health & Safety (H&S) issue(s), and determining whether issue(s) should be remedied, referred, deferred, or result in partial weatherization.

This guidance is based off of WPN 17-7, and is more stringent in some areas where other funding sources are available or place other constraints on the program. When an agency identifies an issue that is not specifically addressed in this policy they should consult with the State WAP staff to determine the best course of action.

All applicable codes must be followed and manufacturer approved materials and instructions must be used while installing H&S measures.

E1.1. Definition of a Health & Safety Measure (HSM):

Allowable energy related H&S actions are those actions necessary to maintain the physical well-being of both the occupants and weatherization workers where:

- Costs are reasonable, as determined by DOE, and are in accordance with the Grantee's approved Annual Plan; **AND**

- The actions must be taken to effectively perform weatherization work; **OR**
- The actions are necessary as a result of weatherization work.

No HSM's can be performed in a home unless ECM's are also part of the scope of work.

E2. BUDGETING

E2.1. Separate Health & Safety Budget

DOE gives its weatherization grantees the option to select which of the two budgeting approaches they will operate under. Grantees may either, create a separate budget category to cover H&S expenses or, cost-justify all H&S expenses as IRM's. Utah WAP has opted to create a Separate H&S budget category. This means HSM's need not be cost-justified by the energy audit, and are not included in the average cost per unit (ACPU) calculation. It also means, agencies must evaluate and report all HSM expenses separate from other expenses in their respective contracts.

- E2.1.a. H&S funds cover the cost of testing and the installation of measures
- E2.1.b. Client education or training costs can be charged to Training and Technical Assistance budget
- E2.1.c. Each Client file must include documentation that separates all costs into the appropriate budget category including H&S.

E3. HEALTH & SAFETY EXPENDITURE LIMITS / USE OF FUNDS

E3.1. H&S Expenditure Limits

- E3.1.a. Based off of PY20 data, Utah WAP has set the H&S expenditure limits for all PY 21 funding sources at 14.9% of the allocated Program Operations budget. The statewide H&S ACPU(including all funding sources) should not exceed \$1158 for the program year. This applies to all active contracts that have a Health & Safety line item in the budget. This percentage will be adjusted annually based off the previous year's expenditures.

E3.2. Use of Funds

- E3.2.a. All measures that are listed as allowable under *E7 Health & Safety Table of Issues* are eligible for use of these funds. If the repair constitutes a Major Repair as defined in *E3.3*, It must be approved by State WAP.
- E3.2.b. Unused H&S funds will be re-budgeted to Program in the 3rd quarter of the program year for that funding source upon written request of the sub-grantee.
- E3.2.c. The material and labor cost to install an approved HSM shall be charged to the health and safety budget category of its respective contract.
- E3.2.d. When another funding source, such as Dominion Energy or Crisis, is used to mitigate a H&S issue it is subject to the rules of that funding source and shall be charged to that funding source.
- E3.2.e. Labor to conduct Health & Safety inspections and testing is an allowable H&S expense.
- E3.2.f. HSM vs. ECM: There are some instances where, depending on circumstances, a measure can qualify as either an ECM or an HSM. When a measure can be cost justified it must be treated as an ECM. The measure may be considered an HSM only after it is determined that the measure is not cost-effective.

E3.3. Cost Limits

- E3.3.a. According to the definition of an HSM, the cost of a measure must be reasonable. The Utah WAP uses the following definitions of Major and Minor repair to help determine when the cost of a measure is reasonable.
 - **Minor Repair** – A repair that DOES NOT exceed the projected H&S ACPU during the given program year established in *E3.1.a*.
 - **Major Repair** – A repair exceeding the projected H&S ACPU during the given program year established in *E3.1.a*. *Major repairs other than water heater replacement require state approval.*
- i. If a measure meets the definition of a Minor repair the cost is considered reasonable and the measure should be installed.
- ii. If a measure meets the definition of a Major Repair (except for water heater replacement) it is considered NOT reasonable. The measure, shall not be addressed as an HSM. If the measure cannot be addressed through other funding sources, the measure, or as appropriate the entire job, shall be deferred.

- iii. If the cost of a measure exceeds the definition of a Minor repair, but the agency feels that the cost is reasonable, it can submit a written justification for why to cost is reasonable to the State WAP for consideration on a case-by-case basis. If the State determines the cost is justified it shall provide the agency with written approval, the measure shall be installed and a copy of the justification and approval shall be included in the client file.
- iv. The cost to replace a water heater with a Direct Vent water heater is considered reasonable when the cost of materials and labor is less than \$3,000.

E3.4. Case-by-case Measure Approval Process

When a HSM is beyond the scope of a Minor Repair, or other circumstances require a case-by-case decision, the following process will be followed:

- E3.4.a. Agency shall submit a written request which describes the situation, explains why it may be eligible for consideration and includes a cost justification to a member of the State WAP staff. Justification shall include estimated MMBtu's that will be saved if measure is approved. Request shall include:
 - Clients Name and address
 - Current status of weatherization
 - Detailed description of the situation
 - Explanation of why it is felt the situation warrants state approval
 - Estimated cost justification
 - Estimated MMBtu's saved (as calculated by approved audit tool)
 - Any other information that would have bearing on the case
- E3.4.b. State WAP staff will review the request using the following criteria:
 - Verify the action is not prohibited by DOE guidance
 - Verify the issue cannot be addressed as a NAM
 - Verify there is an opportunity for more than 15 MMBtu's in energy savings
 - Verify the costs are not excessive compared to readily available materials within the agency's service area
- E3.4.c. State WAP staff will provide a written approval/rejection response.
- E3.4.d. Agency will keep a copy of State WAP response in the client file as part of the justification for installing the measure, or to document why the measure or the job was deferred.

E4. INCIDENTAL REPAIR VS. HEALTH & SAFETY

E4.1. IRM vs. HSM

- E4.1.a. Knob & Tube wiring mitigation is the only Health & Safety issue that shall always be addressed as an IRM and should never be applied to the H&S budget category. Evaluating Knob & Tube mitigation as an IRM allows the energy savings of the individual job to determine the cost effectiveness of the mitigation.
- E4.1.b. All other allowable issues listed in *E7 Health & Safety Table of Issues* shall be installed as HSM's unless specified otherwise. For more info on IRM's see *B9.5.c.vi*. DOE requires that the specific treatment of measures be applied consistently throughout the state, and therefore will not allow the decision to charge these measures as HSM or IRM to be made in the field.

E5. DEFERRAL/REFERRAL POLICY

Deferral of services may be necessary When H&S issues cannot be adequately addressed. 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. Agencies shall follow this policy when service is deferred.

E5.1. Deferred Service

The most important aspect of Deferred Service is setting and managing the Clients expectations. Sub-grantees should make every effort to clearly communicate to the client the reason for deferral and exactly what is required of them for the weatherization process to proceed.

E5.1.a. Client Notification

Clients must be notified, in writing, of the reason they are being placed in Deferral Status. Attachment #24 Deferral Notification maybe used or the sub-grantee may develop a form letter. A copy of the notification shall be placed in the client file. The Notification shall include:

- Client name and address of the unit in question.
- Date, time, location which the hazard was identified.

- Nature & extent of the problem /concern related to the Weatherization of the dwelling
- Any corrective action required prior to the resumption of Weatherization work with a related time frame to correct the situation: and,
- An explanation regarding the right to appeal and the appeals process
- Signature of the client or their authorized agent indicating receipt of the notification .

E5.1.b. Deferral Description and Corrective Action

Sub-grantees shall clearly describe and detail each reason the client is being deferred and the corrective action required by the client to allow weatherization activities to resume. If there is more than one reason for deferral there shall be a corrective action for each deficiency.

E5.1.c. Time Limits

Sub-grantee shall notify the client of the time limits for correction of the cause for deferral. A minimum of thirty (30) calendar days will be afforded to the client per deferral notification.

E5.1.d. Notice of Termination

After the time limits of the deferral have been met the Sub-grantee may close the client file and remove the client from its waiting list. A client can always reapply for the program in the future.

- If Deferral was prior to installation of any materials the home will not be reported as a completion and will not be subject to the Re-Weatherization provisions of Section [C1.9.a.i.](#)
- If materials have been installed on the dwelling it shall be considered a Partial Weatherization and reported according to Section [A5.2 Partial Weatherized Unit.](#)

E5.2. Deferred Service Appeals Procedure

Applicants who are denied Weatherization assistance will be assured an opportunity to have a fair administrative hearing regarding the deferral of services pertaining to the Deferred Service Policy.

E5.2.a. Local Resolution

It is the desire of HCD to see these issues resolved at the local level when possible. When contacted by a client HCD will first contact the sub-grantee to help facilitate a local resolution.

E5.2.b. State WAP Resolution

When necessary, State WAP may intervene to help resolve the matter. This may be accomplished by State WAP staff or the assistance of other sub-grantees to help facilitate a resolution.

E5.2.c. Formal Appeal

If the client disagrees with the decisions, they have the right to a hearing before an impartial Hearing Examiner. To request a hearing, they must ask for it within 60 days of the date of notice. Send a written request and a copy of the deferral letter to the Department of Workforce Services, Division of Adjudication; P.O. Box 45244, Salt Lake City, UT 84145-0244.

E5.3. Referral of Service

- E5.3.a. There will be times that the needs of the client exceed the abilities of the program. Agencies should make reasonable effort to direct the client to other programs or organizations that might be able to assist them. The intent is to find assistance for the client that will allow the weatherization activities to proceed.

E5.4. Tracking of Deferrals

- E5.4.a. Local Agencies shall develop and maintain a tracking system for jobs that are Deferred. This systems shall track by job at a minimum the following:
- i. Each reason for deferral
 - ii. Data of notification (letter)
 - iii. Date of re-inspection
 - iv. Date home was weatherized
 - v. Work Start Date
 - vi. Deferral Date
 - vii. Deferral Removal Date
 - viii. Job Closed Date
 - ix. Client Re-Application date
 - x. Weatherization Completion Date

E6. H&S INSPECTION, IDENTIFICATION AND NOTIFICATION

A Health & Safety inspection must be performed in each home to identify any hazards. When Hazards are identified, appropriate testing must be performed, and the client/landlord/property manager must be informed in writing of all testing results.

E6.1. Health & Safety Inspection

Prior to any weatherization activities being implemented, agencies must inspect each dwelling for health and safety issues that will impact the weatherization work; and determine if any actions are necessary to maintain the physical well-being of the occupants and weatherization workers. Energy auditors shall perform this inspection as part of each energy audit. This inspection shall meet the BPI 1200 standards. Auditor's shall use Attachment 20: Health & Safety Assessment to guide this inspection and to serve as the notification form per [E6.3](#).

The Health & Safety Inspection shall include, as applicable, an inspection and testing of everything listed under the sub-heading "Testing" in [E7 Health & Safety Table of Issues](#).

E6.2. Occupant Health Risk Evaluation

As part of the Health & Safety Inspection, auditors must inform clients of the aspects of weatherization that may put a client with pre-existing health conditions at risk during installation of measures, and, must identify what steps will be taken to ensure that weatherization work will not aggravate pre-existing health conditions.

Agencies should not solicit specific health conditions from clients, but should inform the client how certain aspects of weatherization may affect them if they have certain medical conditions. Agencies are expected to explain to the client, "Mrs. Jones, we will be doing x,y, and z to your home. Parts of this work may generate a lot of dust during installation. If you or any other residents have health conditions that might put them at risk during this work, let's talk about precautions we can take to avoid that risk." It is an opportunity to discuss with the client precautions that can be taken either by the client themselves, such as finding another place to be during the riskiest time of the installation, or by the agency.

When a health risk is identified, the risk and the plan to avoid the risk shall be documented on Attachment 20 Health and Safety Assessment, and shall be signed by the client.

E6.3. Health & Safety Notification Form

Attachment 20 Health & Safety Assessment form shall be used to document that the client/landlord/property manager were informed in writing the results of health and safety testing, and any hazards identified by the testing.

This form shall include the client's name and address; dates of the audit/assessment and when the client was informed of a potential H&S issue(s); a clear description of any problem(s); a statement indicating if, or when weatherization could continue; and it must be signed by auditor/assessor and by the client(s) indicating that they understand and have been informed of their rights and options.

E6.4. Life Threatening Hazards—Immediate Response

When agencies discover problems during testing of combustion gases or when other Life Threatening Hazards are observed which require immediate response, the agency is responsible to:

- E6.4.a. Make the client aware of the hazard(s)
- E6.4.b. Take reasonable actions to prevent injury
- E6.4.c. Prepare a written corrective action to temporarily and/or permanently fix the hazard. The plan must detail when and what the agency will do to correct the hazard, and what the client is responsible to do to prevent the hazard. The plan shall meet the requirements of [E6.3](#) and be signed by the client and an agency rep. The WCDT form or Attachment 20: Health and Safety Assessment forms can be used for this.
- E6.4.d. If the hazard is CO levels in excess of BPI 1200 standard with spillage into the envelope, the agency must immediately disable and Red-Tag appliances.
- E6.4.e. If the repair or replacement is within the scope of weatherization, agency must return and repair the issue as soon as possible.
- E6.4.f. When the Hazard is beyond the scope of Weatherization, the agency shall detail in the corrective action plan that it is the clients responsibility to correct the hazard, refer the client to any other resources and defer the job per [E5 Deferral/Referral Policy](#).

E7. HEALTH & SAFETY TABLE OF ISSUES

This section lists the most common Health & Safety issues faced in Utah WAP. Each issue is formatted to include information about Action/Allowability, Testing, Client Education, and Training.

No H&S measures can be performed in a home unless ECM's are also part of the scope of work.

The rationale for performing each HSM in an individual home and its relationship to the ECM that necessitated it must be clearly documented in the client file. The guidance in [B9.5.b HSM—Health & Safety Measure](#) shall be followed to document this. Documenting a related ECM is not required for any testing, or for ASHRAE 62.2 Compliance, Smoke & CO Alarms, and Vapor barriers.

- **Action/Allowability:** This section lists actions that can or must be taken when an issue exists. If an action or measure is listed under this section as required or allowable it is an approved HSM and can be paid for with Health & Safety funds. If an action or measure is not allowed or prohibited, Health & Safety funds cannot be used.
- **Testing:** This section lists inspections that must be performed and testing that must be conducted when an issue exists. If testing or inspection is listed under this section as required or allowable it is an approved HSM and can be paid for with Health & Safety funds. If testing or inspection is not allowed or prohibited, Health & Safety funds cannot be used.
- **Client Education:** Client education is required only when an issue exists. For example, client education regarding drainage issues is only required where drainage problems are identified. Labor and materials for Client Education shall be charged to T&TA and is not an allowable H&S expense.
- **Training:** This section lists training that Weatherization staff should receive in order to conduct testing and inspections, and or to perform the allowable actions. Agencies are responsible to ensure that staff has received all appropriate training. Workers must be qualified and adequately trained to implement the DOE Standard Work Specifications and codes specific to the work being conducted. Workers shall be trained to know when the performance of certain tasks requires a licensed professional. All training shall be charged to T&TA and is not an allowable H&S expense.

E7.1. Air Conditioning and Heating Systems/Units

E7.1.a. Action/Allowability

When a space conditioning system does not qualify as an ECM or a NAM, the following conditions must be met before the unit can be replaced or repaired as an HSM.

- i. “Red tagged,” inoperable, or nonexistent primary heating systems may be replaced, repaired, or installed. Climate conditions throughout the state require every dwelling to have a primary heating system.
- ii. Primary air conditioning system replacement, repair, or installation is not allowed as an HSM. Unsafe air conditioning units shall be addressed following the Air conditioning policy, or deferral is required. See [B8.24 Air Conditioners](#).
- iii. Use proper sizing protocols (Manual J, or NEAT/MHEA outputs) based on post-weatherization housing characteristics, including installed mechanical ventilation, when installing or replacing a heating or cooling appliance.
- iv. Unsafe primary units must be repaired, replaced and removed, or rendered inoperable, or deferral is required.
- v. Replacement or installation of secondary units is not allowed.
- vi. Unsafe secondary units, including space heaters, must be repaired, removed or rendered inoperable, or deferral is required.
- vii. See [E7.13 Hazardous Materials Disposal](#) section for more information.
- viii. For additional guidance see WAP WPN 17-7 Attachment A: Additional Health and Safety Guidance Related to Heating Systems. This guidance may be limited by provisions of state guidelines.

ix. **Space Heaters:**

1. Electric Space Heaters: repair or replacement of electric space heaters is not an allowable HSM.
2. Masonry Chimneys: Masonry chimneys used by vented space heaters should be properly lined in compliance with the International Fuel Gas Code (IFGC). Preexisting venting issues can be addressed as an HSM per [E7.8.a.iii](#). If new equipment is installed, the masonry chimney can only be used as a chase for a new venting system. The new venting system cost shall be included in the new equipment costs.
3. Solid-Fueled Space Heaters: Repair or removal of unsafe fireplaces, and wood, coal, and pellet stoves as primary or secondary heating sources is an allowable HSM. Repair of flues and proper installation (eg. Protection of combustibles, adequate combustion air), is required on all solid fuel heating appliances. As with all HSM’s the cost of this measure is limited to a Minor Measure per [E3.3](#) and all other provisions of this guidance including [E7.1.a.iv](#), [E7.1.a.v](#), [E7.1.a.vi](#).
4. Unvented Gas-and Liquid-Fueled Space Heaters:

- a. **Primary System:** DOE will not permit any DOE-funded weatherization work on a home where the primary heating system is an unvented gas or liquid fueled space heater. The primary heat source must be replaced with a vented unit prior to weatherization. If replacement cannot be accomplished the job must be deferred.
 - b. **Secondary System:** Repair of secondary unvented heating units is not an allowable weatherization measure. For guidance on when a secondary unit must be removed see WAP WPN 17-7 Attachment A: Additional Health and Safety Guidance Related to Heating Systems
5. **Vented Gas-and Liquid-Fueled Space Heaters:** Treat vented gas- and liquid-fueled space heaters the same as furnaces in terms of combustion safety testing, repair and replacement. This policy applies to vented space heaters fueled by natural gas, propane, or oil.

E7.1.b. Testing

- i. All systems used for heating and cooling shall be inspected and tested for health & safety concerns
- ii. Make sure primary systems are present, operable, and performing correctly.
- iii. Check DOE-approved audit to determine if the system can be installed as an energy conservation measure (ECM) prior to replacement as an H&S measure.
- iv. On combustion equipment, inspect chimney and flue; test that combustion is within BPI 1200 standard; test for presence of CO in supply air stream; test for proper venting of the appliance; and test for any concerns with Combustion Appliance Zone (CAZ) depressurization.
- v. On manufactured housing, ensure heating appliances are mobile home approved.
- vi. For solid fuel appliances look for visual evidence of soot on the walls, mantel or ceiling or creosote staining near the flue pipe.
- vii. For evaporative cooling systems look for damage to structure, mold or moisture issues, proper distance from combustion gases
- viii. To evaluate the operation of other combustion appliances in homes where a Solid-Fuel appliance (fireplace, pellet stove, coal stove) is the primary heating unit, or is regularly used to help heat the home, a blower door shall be used during the worst-case CAZ testing to mimic the airflow dynamics likely when the fireplace is in use. The blower door shall be set to depressurize the home at 300 CFM at 50PA.

E7.1.c. Client Education

- i. When deferral is necessary, provide information to the client, in writing, describing conditions that must be met in order for weatherization to commence. A copy of this notification must also be placed in the client file.

- ii. Discuss appropriate use and maintenance of units.
- iii. Provide all paperwork and manuals for any installed equipment.
- iv. Discuss and provide information on proper disposal of bulk fuel tanks when not removed as part of the weatherization work.
- v. Where combustion equipment is present, provide safety information including how to recognize depressurization.

E7.1.d. Training

- i. Auditors/QCI: WAP H&S policy training, BPI Energy Auditor certification which includes CAZ depressurization test and inspection training, and the Rocky Mountain Gas Association (RMGA) certification.
- ii. Technicians: Employer must hold S350 HVAC license and Techs must have RMGA and EPA 608 Certifications. NATE certification is also recommended.

E7.2. Asbestos - in Siding, Walls, Ceilings, etc.

E7.2.a. Action/Allowability

- i. Take all reasonable and necessary precautions to prevent asbestos contamination in the home.
- ii. Do not perform Blower door depressurization tests in homes where there is a risk of asbestos becoming airborne and being drawn into the dwelling. Follow [E7.3.a.ii](#) for blower door testing in homes with suspected ACM.
- iii. The existence of asbestos siding that is in good condition does not prevent installing dense-pack insulation from the exterior.
- iv. Siding may be removed and reinstalled in order to perform the ECM, and the associated costs may be charged as part of the ECM.
- v. General abatement of asbestos siding or replacement with new siding is not an allowable H&S cost.

E7.2.b. Testing

- i. Visually inspect exterior wall surface and subsurface, floors, walls, and ceilings for suspected ACM prior to drilling or cutting.

E7.2.c. Client Education

- i. Inform the client in writing that suspected ACMs are present and what precautions will be taken to ensure the occupants' and workers' safety during weatherization.

E7.2.d. Training

- i. Auditors/QCI: BPI Healthy Home Evaluator (HHE) Certification
- ii. Field Technicians: IWTC Healthy Home Training (HHT) course which includes: How to identify suspected ACM, & Safe practices for siding removal and replacement.

E7.3. Asbestos - in Vermiculite

E7.3.a. Action/Allowability

- i. When vermiculite is present, assume it contains asbestos and do not disturb it, unless testing determines otherwise.
- ii. Do not perform Blower door depressurization tests in homes where there is a risk of asbestos becoming airborne and being drawn into the dwelling, or when there are other circumstances where the blower door test could cause health or safety problems.
 - 1. Agencies shall perform positive pressure blower door testing in homes where suspected ACM is present, and the agency sees no potential that ACM could be introduced into the home.
 - 2. If blower door testing is not conducted the agency shall document in the audit the reasons for not testing including indicators of the risk of asbestos being drawn into the dwelling.
 - 3. On homes where no blower door testing was conducted Duct Sealing and Infiltration Reduction shall be performed as one combined NAM, the total cost shall be limited to \$500, and shall follow the air-sealing prioritization guidance in [B9.8.k.i.3](#)
- iii. Use proper respiratory protection while in areas containing vermiculite.
- iv. Encapsulation or Removal of Vermiculite containing Asbestos is not an allowable program expense.
- v. When deferral is necessary due to vermiculite, asbestos, or suspected ACM, occupant must provide documentation that a certified professional performed the remediation before work continues.

E7.3.b. Testing

- i. A visual assessment of attic insulation, and HVAC duct or piping systems, shall be conducted prior to blower door testing to determine presence of vermiculite or other suspected ACM.
- ii. Utah DEQ sample collection and testing of vermiculite is an allowable H&S expense, and must be conducted by a certified tester deemed qualified by the State of Utah DEQ. Vermiculite testing is the only asbestos testing that is allowed.

E7.3.c. Client Education

- i. When suspected ACM is found, agency's must instruct clients in writing not to disturb suspected ACM, and provide them with asbestos safety information.
- ii. When deferral is necessary, provide information in writing describing conditions that must be met in order for weatherization to commence.
- iii. Formally notify client in writing of results if testing was performed.

E7.3.d. Training

- i. Auditors/QCI: BPI HHE Certification
- ii. Field Technicians: IWTC HHT course which includes training on how to identify and safely work near suspected ACM
- iii. Asbestos Inspector/Sample Collector: Certified by Utah Division of Environmental Quality as Asbestos Inspector in order to conduct testing.

E7.4. Asbestos - on Pipes, Furnaces, other Small Covered Surfaces

E7.4.a. Action/Allowability

- i. Assume asbestos is present in suspect covering materials on pipes, furnaces, and duct.
- ii. When suspected friable ACM is present, take precautionary measures as if it is asbestos.
- iii. Do not perform Blower door depressurization tests in homes where there is a risk of asbestos becoming airborne and being drawn into the dwelling. Follow [E7.3.a.ii](#) for blower door testing in homes with suspected ACM.
- iv. Encapsulation by an appropriately trained asbestos control professional is allowed. It is limited to a minor measure [E3.3.a.i](#), and should be conducted prior to blower door testing if the materials are friable.

- v. Asbestos Containing Material (ACM) less than the Small Scale Short Duration (SSSD), which is less than 3 square feet or 3 linear feet, is not regulated by the State of Utah Department of Environmental Quality (DEQ). ACM that is less than SSSD may be encapsulated or removed to facilitate new HVAC system installation, and is an allowable HSM.
- vi. ACM above SSSD and below National Emission Standards for Hazardous Air Pollutants (NESHAP), which is equal to 260 linear feet, 160 square feet, 35 cubic feet, can **ONLY** be removed by a Weatherization Agency, for installation of a new HVAC system **when**: 1) Agency staff is certified by Utah DEQ as Asbestos Certified Renovator **and** 2) The Agency is certified by Utah DEQ as a Certified Asbestos Renovation Company **and** 3) The Agency carries Pollution Occurrence Insurance
- vii. Only those costs directly associated with encapsulation, or removal of ACM can be charged to the H&S budget category.
- viii. When deferral is necessary due to asbestos, occupant must provide documentation that a certified professional performed the remediation before work continues.

E7.4.b. Testing

- i. Visual inspection to assess whether suspected ACMs are present.

E7.4.c. Client Education

- i. Instruct clients in writing not to disturb suspected ACM.
- ii. Provide asbestos safety information to the client.
- iii. When deferral is necessary, provide information in writing describing conditions that must be met in order for weatherization to commence.

E7.4.d. Training

- i. Auditors/QCI: BPI HHE Certification
- ii. Field Technicians: IWTC HHT course which includes training on how to identify and safely work near suspected ACM

E7.5. **Biologicals and Unsanitary Conditions**

Odors, Bacteria, Viruses, Raw Sewage, Rotting Wood, etc.

E7.5.a. Action/Allowability

- i. Remediation of conditions that may lead to biological concerns or unsanitary conditions is allowed but limited to \$100 in materials and labor.

- ii. Addressing bacteria and viruses is not an allowable cost.
- iii. Deferral may be necessary in cases where conditions in the home pose a health risk to occupants and/or weatherization workers.
- iv. See [E7.16 Mold and Moisture](#) section for more information.

E7.5.b. Testing

- i. Sensory inspection.

E7.5.c. Client Education

- i. Inform client in writing of observed conditions.
- ii. Provide information on how to maintain a sanitary home.
- iii. When deferral is necessary, provide information in writing describing conditions that must be met in order for weatherization to commence.

E7.5.d. Training

- i. Auditors/QCI: BPI HHE Certification
- ii. Field Technicians: IWTC HHT course which includes training on how to identify and safely work near suspected ACM

E7.6. Building Structure and Roofing

E7.6.a. Action/Allowability

- i. Roof repairs are allowable as a HSM if:
 - 1. It resolves a bulk water intrusion issue that is the cause of visible biological growth, and
 - 2. The roof repair is well documented with written explanation and photos of the biological growth in the client file.
- ii. Major roof repair, and building rehabilitation is beyond the scope of the Weatherization Assistance Program.
- iii. Homes that require more than minor repairs must be deferred.
- iv. See [E7.16 Mold and Moisture](#), [E7.7 Code Compliance](#), and [E7.18 Pests](#) sections for more information.

E7.6.b. Testing

- i. Visual inspection.
- ii. Ensure that access to the portions of the home where weatherization will occur are safe for entry and performance of assessments, work, and inspections.

E7.6.c. Client Education

- i. Notify client in writing of structurally compromised areas.
- ii. When deferral is necessary, provide information in writing describing conditions that must be met in order for weatherization to commence.

E7.6.d. Training

- i. Auditors/QCI: BPI HHE Certification
- ii. Field Technicians: IWTC HHT course which includes training on how to identify structural and roofing issues.

E7.7. Code Compliance

E7.7.a. Action/Allowability

- i. Correction of preexisting code compliance issues is not an allowable cost unless triggered by weatherization measures being installed in a specific room or area of the home.
- ii. When correction of preexisting code compliance issues is triggered and paid for with WAP funds, Auditor must cite on the audit, specific code requirements with reference to the weatherization measure(s) that triggered the code compliance issue in the client file.
- iii. Follow State and local or Authority Having Jurisdiction codes while installing weatherization measures, including H&S measures.
- iv. Condemned properties and properties where “red tagged” H&S conditions exist that cannot be corrected under this guidance must be deferred.

- v. **Gas Appliances in Hazardous or Prohibited Locations:** Gas fired appliances shall not be located in sleeping rooms, bathrooms, toilet rooms or in a space that opens into such rooms or spaces unless the appliance is a sealed combustion or Direct vent appliance, or the appliance meets one of the Exceptions listed in Section 4.4 of the [Dominion Energy Good Practices Guide](#). Correcting preexisting issues with Gas Appliances in Prohibited Locations is an allowable HSM as long as there is one or more ECM's as part of the scope of work. The following corrective actions are allowable: Replace natural draft water heater with Direct Vent water heater, move appliance(s) to an approved location, build a wall and/or add a door to remove appliance(s) from prohibited location (make sure conditions after repair will meet the requirements of the Good Practices Guide).

E7.7.b. Testing

- i. Visual inspection.

E7.7.c. Client Education

- i. Inform client in writing of observed code compliance issues when it results in a deferral.
- ii. When deferral is necessary, provide information in writing describing conditions that must be met in order for weatherization to commence.

E7.7.d. Training

- i. Auditors/QCI: BPI HHE certification which includes training on how to determine what code compliance may be required.

E7.8. **Combustion Gases**

E7.8.a. Action/Allowability

- i. Adequate Combustion Air, and proper venting to the outside for combustion appliances; including gas dryers and refrigerators, furnaces, vented space heaters and water heaters is required.
- ii. Appliance CO must be below the BPI 1200 Standard's Threshold Limit for Fossil-Fuel Fired Combustion Appliances.
- iii. Correct venting, High CO, and combustion air issues when testing indicates a problem. Addressing preexisting venting and combustion air issues is an allowable HSM when the issue will be exacerbated by weatherization and there is one or more ECM's that are part of the scope of work.

- iv. Furnace Repair and replacement for Combustion Gas Safety: see [E7.1 Air Conditioning and Heating Systems/Units](#)
- v. Water Heater Replacement: Replacement of a natural draft water heater with a direct vent water heater is an allowable HSM when the existing water heater no longer drafts due to weatherization activities. For Water Heaters in Prohibited Locations see [E7.7 Code Compliance](#).
- vi. Other Appliances Replacement: If unsafe conditions whose remediation is necessary to perform weatherization, or is a result of weatherization, cannot be remedied by repair or tuning, replacement is an allowable HSM unless prevented by other guidance herein.
- vii. When a combustion appliance is replaced as an HSM the agency must maintain documentation justifying the replacement with a cost comparison between replacement and repair in the client file.
- viii. Replacement units must meet manufacturers safety guidelines and BPI 1200 standards.
- ix. Un-vented combustion space heaters will be addressed in accordance with DOE Weatherization Program Notice 8-4
- x. See [E7.1 Air Conditioning and Heating Systems/Units](#) section and WAP WPN 17-7 Attachment A for more information.
- xi. Combustion appliances in unapproved or prohibited locations should follow [E7.7 Code Compliance](#)

E7.8.b. Testing

- i. Combustion safety testing is required when combustion appliances are present.
- ii. Worst Case Draft Test (WCDDT): Test naturally drafting appliances (and any appliances that share a flue with naturally drafting appliances per BPI-1200 standard) for spillage and CO during CAZ depressurization testing pre- and post-weatherization and before leaving the home on any day when work has been done that could affect draft (e.g., tightening the home, adding exhaust). Use Attachment 9 Worst Case Draft Test form or equivalent, and place copies of all WCDDT's in the client file.
- iii. Inspect venting of combustion appliances and confirm adequate vent operation and clearances.
- iv. Inspect and verify adequate Combustion Air is available for combustion appliances per Questar Good Practices Guide. Auditor's should calculate combustion air for any appliance which is not installed as a direct vent appliance. The calculation should be documented in the client file.

- v. On forced-air heating systems, test for presence of Carbon Monoxide in supply air and inspect heat exchanger(s) for cracks and combustion leakage into supply air.
- vi. Check DOE-approved audit to determine if the appliance can be justified as an ECM prior to replacement as an H&S measure.
- vii. Identify and address any non-vented space heaters
- viii. Identify possible dangers in the home where the client's sleeping arrangements might create a code conflict with the location of combustion appliances.
- ix. When testing identifies an immediate risk to the occupants, the agency shall take immediate action to mitigate the risk per *E6.4 Life Threatening Hazards—Immediate Response*

E7.8.c. Client Education

- i. Provide client with combustion safety and hazards information.

E7.8.d. Training

- i. Auditors/QCI: BPI Energy Auditor or BPI QCI certifications
- ii. Field Technician (if conducting WCDDT): Worst Case CAZ depressurization test Training which includes training on how to perform appropriate testing, determine when a building is excessively depressurized, and the difference between air free and as-measured CO, and BPI 1200 CO action levels.

E7.9. Electrical

E7.9.a. Action/Allowability

- i. When the H&S of the occupant/worker(s) is at risk, minor repairs per *E3.3.a*, are allowed as an HSM when necessary for weatherization measures.
- ii. Knob & Tube mitigation or other Major electrical repairs necessary for weatherization measures shall be addressed as an IRM and is not an allowable H&S measure. Knob & Tube guidance is located in Section *B8.30*.
- iii. If Knob & Tube or other major repairs are not cost effective as an IRM follow the measure removal process in *B9.5.c.v*. If the repairs are preventing more than 15 MMBtu's in energy savings, the job should be deferred until another funding source can be identified to address the problem.

E7.9.b. Testing

- i. Visual inspection for presence and condition of knob-and-tube wiring.

- ii. Check for alterations that may create an electrical hazard.
- iii. Voltage drop and voltage detection testing are allowed.
- iv. Use of a licensed electrician who can determine code compliance

E7.9.c. Client Education

- i. When electrical issues are the cause of a deferral, provide information to client on over-current protection, overloading circuits, and basic electrical safety/risks.

E7.9.d. Training

- i. Auditors/QCI: BPI HHE Certification which includes How to identify electrical hazards.
- ii. Electrician: Must hold an E200 Utah Electrical Contractors License

E7.10. Formaldehyde, VOCs, Flammables and other Pollutants

E7.10.a. Action/Allowability

- i. Removal of pollutants is allowed and is required if they pose a risk to workers and if they are not hazardous waste.
- ii. If pollutants pose a risk to workers and removal costs are not reasonable, removal cannot be performed or is not allowed by the client, the unit must be deferred.
- iii. Refer to [E7.13 Hazardous Materials Disposal](#) section for more information.

E7.10.b. Testing

- i. Sensory inspection.

E7.10.c. Client Education

- i. Inform client in writing of observed hazardous condition and associated risks.
- ii. Provide client written materials on safety issues and proper disposal of household pollutants.
- iii. When deferral is necessary, provide information in writing describing conditions that must be met in order for weatherization to commence.

E7.10.d. Training

- i. Auditors/QCI: BPI HHE Certification

- ii. Field Technicians: IWTC HHT course which includes training on how to recognize potential hazards and when removal is necessary.

E7.11. Fuel Leaks

E7.11.a. Action/Allowability

- i. When a minor gas leak is found on the utility side of service, the utility service must be contacted before work may proceed.
- ii. Fuel leaks that are on the clients side of the meter (vs. the utility) which can be addressed as a minor repair per [E3.3.a](#) must be repaired before weatherizing a unit. Addressing a preexisting fuel leak is an allowable HSM when there is one or more ECM's that are part of the scope of work. Major repairs are beyond the scope of weatherization.
- iii. Notify utilities and temporarily halt work when leaks are discovered that are the responsibility of the utility to address.

E7.11.b. Testing

- i. Test exposed gas lines with a combustible gas detector for fuel leaks from utility coupling into, and throughout, the home.
- ii. Conduct sensory inspection on bulk fuels to determine if leaks exist.

E7.11.c. Client Education

- i. Inform clients in writing if fuel leaks are detected.
- ii. Client Education must Follow BPI 1200 Standard's Required actions in Response to Ambient CO Measurements

E7.11.d. Training

- i. Auditors/QCI: BPI Energy Auditor or BPI QCI Certification and Rocky Mountain Gas Association (RMGA) certification
- ii. Field Technicians: IWTC HHT course which includes training on Fuel gas safety.

E7.12. Gas Ovens /Stovetops/Ranges

E7.12.a. Action/Allowability

- i. When testing indicates a problem, entities may perform standard maintenance on or repair gas cooktops and ovens.

- ii. Replacement is not allowed as an HSM.
- iii. If weatherization will exacerbate the problem and replacement is not possible via other funding sources the job must be deferred.

E7.12.b. Testing

- i. Test gas ovens for CO levels per BPI 1200 Standard.
- ii. Inspect cooking burners and ovens for operability and flame quality.

E7.12.c. Client Education

- i. Inform clients of the importance of using exhaust ventilation when cooking and the importance of keeping burners clean to limit the production of CO.

E7.12.d. Training

- i. Auditors/QCI: BPI Energy Auditor, or QCI and HHE Certification
- ii. Field Technicians: IWTC HHT course which includes training on Combustion appliance safe work practices and BPI 1200 CO actions levels

E7.13. **Hazardous Materials Disposal**

Refrigerant, Asbestos, Lead, Mercury, including CFLs/Fluorescents

E7.13.a. Action/Allowability

- i. Hazardous Waste Materials generated in the course of weatherization work shall be disposed of according to all local laws, regulations and/or Federal guidelines, as applicable.
- ii. Agencies must maintain all documentation required by local laws, regulations and/or federal guidelines. Language requiring proper disposal requirements and documentation must be in contract language with subcontractors.
- iii. Refer to Lead and Asbestos sections for more information on those topics.

E7.13.b. Testing

- i. Not applicable.
- ii. Refer to [E7.15 Lead Based Paint](#) and [E7.2](#), [E7.3](#), & [E7.4](#) Asbestos sections for more information on those topics.

E7.13.c. Client Education

- i. Inform client in writing of hazards associated with hazardous waste materials being generated/handled in the home.

E7.13.d. Training

- i. Auditors/QCI: BPI HHE Certification
- ii. Field Technicians: IWTC HHT course which includes training on working with Hazardous materials; appropriate Personal Protective Equipment (PPE) for working with hazardous waste materials; disposal requirements and locations; and Health and environmental risks related to hazardous materials.

E7.14. **Injury Prevention**

--of Occupants and Weatherization Workers -- Repairing Stairs, Replacing Handrails, etc.

E7.14.a. Action/Allowability

- i. When necessary to effectively weatherize the home, workers may make Minor Repairs and installations, to prevent injury of occupants and/or weatherization workers.
- ii. If the cost to make the injury prevention repair or installation is beyond a minor repair per *E3.3.a*, the ECM(s) that triggered the HSM for Injury Prevention must be deferred. If removal of the ECM(s) reduces the estimated energy saved by more than 15 MMBtu's the agency should defer the entire weatherization job until another funding source can be found to pay for the Injury Prevention repairs.

E7.14.b. Testing

- i. Inspect for dangers that would prevent weatherization.

E7.14.c. Client Education

- i. If conditions will not be repaired, inform client in writing of observed hazards and associated risks.

E7.14.d. Training

- i. Auditors/QCI: BPI HHE Certification
- ii. Field Technicians: IWTC HHT course which includes training on Hazard identification.

E7.15. Lead Based Paint

E7.15.a. Action/Allowability

- i. Agencies must follow EPA's Lead Safe Renovation, Repair and Painting Rule (RRP) when working in pre-1978 housing ([see rule in 40 CFR 744 Subpart E](#)).
- ii. Lead testing on pre-1978 homes is an allowable HSM. Lead Safe RRP work for ECM's shall always be an HSM charged to Health & Safety. Lead Safe RRP work for NAM's must be included in the cost of the NAM and cannot be charged to Health & Safety.
- iii. Deferral is required when the extent and condition of lead-based paint in the house would potentially create further H&S hazards. Hiring a Lead Risk Assessor to help make this determination is allowable (see [E7.15.b.v](#) Testing below).
- iv. Only those costs directly associated with the testing and Lead Safe RRP practices for surfaces directly disturbed during weatherization activities are allowable HSM's.
- v. Workers shall follow OSHA standards for PPE for Lead Safe RRP work. Costs for PPE for Lead Safe RRP are allowable H&S expenses.
- vi. Job site set up and cleaning verification by a Certified Renovator is required.
- vii. Documentation in the client file must include Certified Renovator certification; any training provided on-site; description of specific actions taken; lead testing and assessment documentation; and, photos of site and containment set up. This shall be documented using Attachment #28 RRP Declaration and Checklist

E7.15.b. Testing

- i. Testing to determine the presence of lead in paint that will be disturbed by WAP measure installation is required on all pre-1978 housing.
- ii. This testing will be conducted with X-Ray Fluorescence (XRF) devices with a current calibration certification and leak test.
- iii. Lead testing results shall be recorded using software reports provided by the XRF manufacturer or other agency created form. Testing results shall include: client information, location each test was taken, and the positive or negative results of each building component tested. A copy of testing results shall be kept in the client file.
- iv. Agencies will develop an internal process to ensure once a positive result is found that every person working on that job is aware of the presence and location of lead. This process will ensure that both the client and the worker are protected.

- v. Agencies are not required to conduct a Lead Inspection (R307-842-3(2)), Hazard Screen (R307-842-3(3)), Risk Assessment R307-842-3(4)). As defined by Utah Administrative Code. Since these defined inspections/testing would not ensure the sampling of areas where weatherization activities would be conducted. Hiring a third party to conduct a Lead Inspection and/or Hazard Screen when it is suspected that the extent and condition of lead-based paint in the house would potentially create further H&S hazards is allowable.
- vi. Agencies are responsible to ensure crews and contractors are using lead safe work practices. Lead safe work practices shall be verified using required photographic documentation along with work in-progress verification. State WAP personnel will also verify that agencies are using lead safe work practices as part of its annual monitoring.

E7.15.c. Client Education

- i. Agencies must Follow Information distribution requirements of EPA's RRP ([see 40 CFR 745.84 Subpart E](#)) to ensure that the Owner and/Occupants have received EPA's Renovate Right pamphlet and obtain written acknowledgment that the pamphlet was delivered.
- ii. When deferral is necessary, provide information in writing describing conditions that must be met in order for weatherization to commence.

E7.15.d. Training

- i. Lead Inspector: A person conducting a Lead inspection will be licensed by the State of Utah DEQ as a Utah Lead-Based Paint Inspector (R307-842-2).
- ii. All sub-grantees will retain qualified staff or contractors who hold current RRP Certifications pursuant to Utah Annotated Code R307-841-8(1) and R307-842-2.
- iii. All sub-grantees and any contractors they employ to conduct RRP are required to be certified as a Lead Renovator Firm; regulated by the [Utah Department of Environmental Quality](#) (DEQ) pursuant to Utah Annotated Code R307-842.2(5)
- iv. All employees and contractors working on pre-1978 homes must either, be an EPA Certified Lead Renovator, or receive training to install measures in a lead-safe manner in accordance with the SWS and EPA protocols, and installation must be overseen by an EPA Certified Lead Renovator.
- v. State Monitors: must be EPA Certified Lead Renovators.

E7.16. Mold and Moisture

Including but not limited to: drainage, gutters, down spouts, extensions, flashing, sump pumps, dehumidifiers, landscape, leaking roofs, vapor retarders, moisture barriers, etc.

E7.16.a. Action/Allowability

- i. Limited water damage repairs that can be addressed by weatherization workers are allowed HSM's when necessary in order to weatherize the home and to ensure the long-term stability and durability of the measures.
- ii. Source control (i.e. correction of moisture and mold creating conditions) is allowed as an HSM when necessary in order to weatherize the home and to ensure the long-term stability and durability of the measures. Source control is independent of latent damage and related repairs.
 - 1. Clothes Dryer and Exhaust Fans: Must vent to the outdoors. Venting installation or Repair is an allowable HSM.
 - 2. Vapor Barrier: Whenever site conditions permit, Install a vapor barrier over exposed dirt floors to prevent water vapor from migrating out of the soil and into building materials and building cavities.
- iii. Water damage repairs and Source control shall not exceed the cost limits of a minor repair per [E3.1](#).
- iv. Where severe Mold and Moisture issues cannot be addressed, deferral is required.
- v. Mold cleanup is not an allowable HSM.
- vi. Surface preparation where weatherization measures are being installed (e.g., cleaning mold off window trim in order to apply caulk) must be charged as part of the ECM, not to the H&S budget category.
- vii. Identification of existing or potential moisture problems shall be documented on H&S Form 1.

E7.16.b. Testing

- i. Visual assessment including exterior drainage.
- ii. Diagnostics such as moisture meters are allowed pre-weatherization and at the final inspection.
- iii. Mold testing is not an allowable cost.

E7.16.c. Client Education

- i. Provide client with EPA pamphlet 402-K-02-003, A Brief Guide to Mold, Moisture, and Your Home, which includes information on importance of cleaning and maintaining drainage systems, proper landscape design and how this impacts site drainage and moisture control.
- ii. Mold & Moisture problems found must be pointed out and discussed with the client.

- iii. When deferral is necessary, provide information in writing describing conditions that must be met in order for weatherization to commence.

E7.16.d. Training

- i. Auditors/QCI: BPI HHE Certification
- ii. Field Technicians: IWTC HHT course which includes training on Dampness and Mold Growth

E7.17. **Occupant Pre-existing or Potential Health Conditions**

E7.17.a. Action/Allowability

- i. When a person's health may be at risk and/or WAP work activities could constitute an H&S hazard, the occupant will be required to take appropriate action based on severity of risk.
- ii. Failure or the inability to take appropriate actions must result in deferral.

E7.17.b. Testing

- i. Clients shall complete the Applicant Health & Safety Evaluation (Attachment 20) prior to, or during the Energy Audit.
- ii. Agencies shall use the Applicant H&S evaluation (Attachment 20), and A07 Health & Safety Assessment together to screen occupants to reveal known or suspected health concerns as part of initial application for weatherization, and during the audit.
- iii. Caution shall be used to ensure screening process does not require or collect any Protected health information under HIPPA.

E7.17.c. Client Education

- i. Inform client in writing of any known risks.
- ii. Provide client with Agency point of contact information in writing so client can inform of any issues.
- iii. When deferral is necessary, provide information in writing describing conditions that must be met in order for weatherization to commence.

E7.17.d. Training

- i. Energy Auditor: How to assess occupant preexisting conditions and determine what action to take if the home is not deferred.

- ii. Auditors/QCI: BPI HHE Certification
- iii. Field Technicians: IWTC HHT course which includes training on potential hazards and allowable actions.

E7.18. Pests

E7.18.a. Action/Allowability

- i. Minor pest problems that can be addressed with a bug bomb or hornet spray that allow work to proceed are allowable—Limit of \$100 in materials and labor.
- ii. Infestation of pests beyond a minor pest problem shall be cause for deferral where it cannot be reasonably removed or poses H&S concern for workers.

E7.18.b. Testing

- i. Assessment of presence and degree of infestation and risk to worker.

E7.18.c. Client Education

- i. Inform client in writing of observed condition and associated risks.
- ii. When deferral is necessary, provide information in writing describing conditions that must be met in order for weatherization to commence.

E7.18.d. Training

- i. Auditors/QCI: BPI HHE Certification which includes training on how to assess presence and degree of infestation, associated risks, and deferral policy.
- ii. Field Technicians: IWTC HHT course which includes training on pest infestation and control

E7.19. Radon

E7.19.a. Action/Allowability

- i. Radon mitigation is not an allowable H&S cost.
- ii. Clients must sign an informed consent form prior to receiving weatherization services. This form must be kept in the client file.

- iii. Radon Precautionary Measures: Since every county in Utah is in radon Zone 1 or 2, work scope should include the precautionary measures below which are based on EPA Healthy Indoor Environment Protocols for Home Energy Upgrades, to reduce the possibility of making radon issues worse:

1. Vapor Barrier: Whenever site conditions permit, Install a vapor barrier over exposed dirt floors to prevent radon from migrating out of the soil and into the building.
2. Other precautions may include, but are not limited to, sealing any observed floor and/or foundation penetrations, including open sump pits, isolating the basement from the conditioned space, and ensuring crawl space venting is installed.

E7.19.b. Testing

- i. Radon testing is allowed on a case-by-case basis with written permission from state WAP.

E7.19.c. Client Education

- i. Provide all clients [EPA's A Citizen's Guide to Radon](#) and inform them of radon related risks.
- ii. Attachment 20: Radon Informed consent form must signed by the client and a copy included in the client file

E7.19.d. Training

- i. Auditors/QCI: BPI HHE Certification which includes training on radon, what it is and how it occurs, including what factors may make radon worse, and precautionary measures that may be helpful.
- ii. Field Technicians: IWTC HHT course which includes training on radon, what it is and how it occurs.
- iii. Field Technicians: must be trained in proper vapor retarder installation.
- iv. A zonal map can be located at <http://www.epa.gov/radon/pdfs/zonemapcolor.pdf>

E7.20. Safety Devices: Smoke and Carbon Monoxide Alarms

E7.20.a. Action/Allowability

- i. Smoke Alarms shall be installed where alarms are not present or are inoperable. There should be 1 detector on each habitable level, and at least 1 detector in each sleeping room and each hallway or space immediately adjacent to a sleeping room. Smoke alarms must be, installed in accordance with the manufacturer's recommendations, listed in accordance with UL 217, comply with NFPA 72

- ii. CO Alarms must be installed on each habitable level where alarms are not present, are inoperable. Alarms should be placed in the immediate vicinity of all sleeping areas. CO Alarms shall also be installed in the CAZ of Fireplace(s) in homes where the Fireplace is the primary source of heat.
 - 1. To be eligible for Thermwise air-sealing rebates, CO alarms shall:
 - a. UL listed to ANSI/UL 2034-09
 - b. Include an electrochemical sensor
 - c. Be powered by long-life lithium type battery
 - d. Include a digital readout that automatically displays the current CO level detected when an alarm signal is activated
 - e. Include a data feature which is activated when the test/reset or memory button is pressed, and the readout shall include the current CO level detected down to 10 parts per million (ppm), the highest level detected down to 10 ppm, and for how long the peak level was detected
 - f. Battery shall be factory pre-installed within a compartment which has a separate battery door that is locked closed with a tamper-resistant screw
 - g. Battery compartment shall not be accessible without removing alarm from its mounting
- iii. Fire extinguishers may NOT be provided as part of weatherization.

E7.20.b. Testing

- i. Check existing alarms for operation.
- ii. Verify operation of newly installed alarms.

E7.20.c. Client Education

- i. Provide client with verbal and written information on how to operate, test and maintain devices installed.

E7.20.d. Training

- i. Auditors/QCI: BPI HHE Certification
- ii. Field Technicians: IWTC HHT course which includes training on where to install alarms and local code compliance.

E7.21. **Ventilation and Indoor Air Quality**

E7.21.a. Action/Allowability

- i. Every home weatherized must meet ASHRAE 62.2-2016 ventilation requirements. Mechanical ventilation for ASHRAE 62.2-2016 shall be installed as a HSM. All costs associated with ASHRAE 62.2 compliance are allowable H&S expenses.

- ii. When an existing fan is being replaced or upgraded to meet whole-house ventilation requirements, agencies must take actions to prevent zonal pressure differences greater than 3 Pascal across the closed door, if one exists.
- iii. Local exhaust ventilation may be installed or repaired as an HSM to decrease ASHRAE Local Exhaust deficit or for moisture control.
- iv. Positive or Neutral ASHRAE ventilation: To prevent pollutants from being drawn in to the building, positive or neutral pressure is required for ASHRAE continuous dwelling-unit ventilation when: there is a partial or missing vapor barrier; or there is vermiculite in the attic, or ACM or suspected ACM which could be drawn into the building under negative pressure.
- v. The ASHRAE 62.2 standard will not be applied to homes that are not supplied with commercial power with written approval from the State WAP
- vi. In units that are heated solely with solid fuel agencies will implement ASHRAE 62.2 standards to the fullest extent possible without endangering the clients. This may require a supply or balanced system installation.
- vii. Client refusal of mechanical ventilation, when evaluated and called for pursuant to the ASHRAE 62.2 Standard, must result in deferral of the job.
- viii. Clothes Dryer and Exhaust Fans: Must vent to the outdoors. Venting installation or Repair is an allowable HSM.

E7.21.b. Testing

- i. An ASHRAE 62.2 evaluation to estimate required ventilation, and to formulate a compliance strategy, shall be conducted during the energy audit, and documented on Attachment 22 ASHRAE Calculator or approved alternate.
- ii. An ASHRAE 62.2 final calculation and evaluation to determine required ventilation shall be conducted upon completion of all measures that effect building ventilation, and documented on Attachment 22 ASHRAE Calculator or approved alternate.
- iii. Measure and document fan flow of existing fans and of installed equipment to verify performance.
- iv. Measure zonal pressure difference across a closed door where an existing fan is replaced to meet whole-house ventilation requirements.

E7.21.c. Client Education

- i. Provide client with information on function, use, and maintenance (including location of service switch and cleaning instructions) of ventilation system and components.
- ii. Provide client with equipment manuals for installed equipment.

- iii. Include disclaimer that ASHRAE 62.2 does not account for high polluting sources or guarantee indoor air quality.

E7.21.d. Training

- i. Auditor/QCI/Field Technician: ASHRAE 62.2 training, including proper sizing, evaluation of existing and new systems.

E7.22. **Window and Door Replacement, Window Guards**

E7.22.a. Action/Allowability

- i. Replacement, repair, or installation is not an allowable HSM. See [B8.8](#), & [B8.9](#) for guidance on window repair/replacement options as an ECM or NAM.

E7.22.b. Testing

- i. Not applicable

E7.22.c. Client Education

- i. Provide written information on lead risks wherever issues are identified.

E7.22.d. Training

- i. Auditor/QCI: Awareness of guidance.

E7.23. **Worker Safety**

E7.23.a. Action/Allowability

- i. Workers must follow OSHA standards and take precautions to ensure the H&S of themselves and other workers.
- ii. **Worker Safety Program:** Each agency shall develop a Worker Safety program that contains policies and procedures to ensure a safe working environment for their employees. At a minimum the program shall contain the provisions of this Worker Safety section.
- iii. All Agencies and their contractors must maintain compliance with the current OSHA Hazard Communication Standard, including on-site organized Safety Data Sheets (SDS) (formerly called MSDS).

- iv. **Personnel Protective Equipment (PPE):** Workers must wear appropriate PPE in all operations where there is exposure to hazardous conditions. The cost to provide PPE is an allowable Health & Safety expenditure. Minimum PPE includes: appropriate eye, respiratory, and hearing protection; gloves; ground fault protection; and fall protection equipment. Weatherization vehicles should be equipped with a first aid kit, fire extinguisher, and warning triangles.
- v. **Confined Spaces:** Agencies are required to comply with OSHA requirements for confined spaces, per the [DOE WAP Memorandum 013](#). A Confined Space is a space which is: large enough and so configured that an employee can enter, has limited or restricted means of entry and exit, and is not designed for continuous employee occupancy. In addition to the OSHA standard, spaces with openings less than 18" x 22", and areas with a clear height less than 18" or a clear width less than 24" shall be considered "non-accessible" for the purpose of weatherization activities. If a worker is not physically able to fit through these dimensions they should not be required to do so.

E7.23.b. Testing

- i. Energy Auditors shall conduct a Health & Safety evaluation of each dwelling to identify and address any potential Worker Safety hazards
- ii. Agencies are responsible to ensure workers and contractors wear appropriate PPE and follow safe work practices.
- iii. Agencies shall conduct quarterly on-site safety inspections. Inspection documentation shall include: date, time, and location, names of field staff on site, any deficiencies & corrective action taken. Documentation shall be made available for review during Annual Monitoring.
- iv. State WAP shall verify that Agencies crews and contractors follow safe work practices at least annually as part of its production monitoring. Safe work practices will be verified through documentation of required training meetings along with occasional work in-progress verification.

E7.23.c. Client Education

- i. Not applicable.

E7.23.d. Training

- i. ALL: Use and importance of PPE.
- ii. All: **OSHA 10 Certification:** All agency Field Staff (which includes persons with any of the following job responsibilities: energy auditor, weatherization technician, HVAC technician, final inspector, production manager, or crew chief), shall obtain the OSHA Construction Industry 10 hour certification within 30 from date of hire.

- iii. **OSHA 30 Certification:** Each agency shall have at least 1 person with the OSHA Construction Industry 30 hour certification.
- iv. All: **Quarterly Agency Safety Training:** Each agency shall conduct safety training at least quarterly. Trainings should regularly cover Confined Space training and the OSHA “Focus Four Hazards” which are: Fall protection, caught in or between, struck by, and electrocution. Training agendas and sign-in sheets or certificates of attendance shall be retained for review during Annual Monitoring.
- v. All: **Confined Space Training:** Agencies are responsible to establish a Confined Space training program that meets the requirements of OSHA publication 3825-09 “Protecting Construction Workers in Confined Spaces: Small Entity Compliance Guide.” The Confined Space training program will include the development, training, and implementation of a Confined Space Permit process. The training and permitting will also apply to agency contractors. The agency will have the roles of both Host Employer and Controlling Contractor when using a sub-contractor that enters a confined space on a Weatherization or Crisis Service Call project.