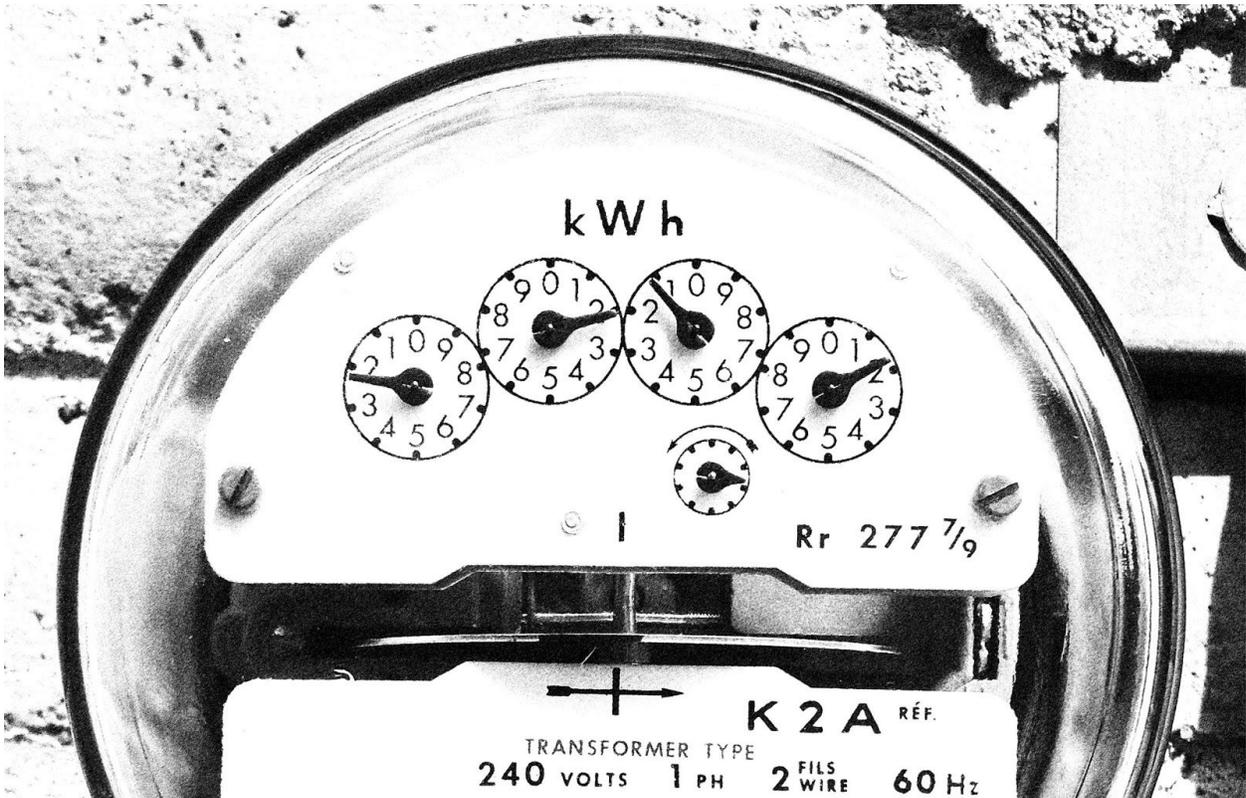


ENERGY EFFICIENCY PROGRAM OPERATIONS MANUAL

v.8-2018



Maryland Department of Housing and Community Development

Housing & Building Energy Programs

7800 Harkins Road

Lanham, MD 20706



TABLE OF CONTENTS

DEFINITION OF TERMS	6
HOUSING AND BUILDING ENERGY PROGRAMS	10
Grant Based Energy Programs	10
Department of Energy Weatherization Assistance Program	10
EmPOWER Maryland Low Income Energy Efficiency Program	11
Maryland Energy Assistance Program	12
Regional Greenhouse Gas Initiative / Strategic Energy Investment Fund	12
State Administration	13
Subgrant Agreements and Contracts	13
Debarment and Termination	13
Program Operations Manual	13
Directives and WPNs	14
Program Guidelines	14
Program Management Software	15
Hancock User Account Requests	15
Network Partners Roles and Responsibilities	15
Local Weatherization Agencies	16
State Weatherization Contractors	17
Subcontractors and Minority Business Enterprise (MBE) Goals	17
NETWORK PARTNER ADMINISTRATIVE MANAGEMENT	18
Budget Management and Production	18
Project Documentation	26
Regulations Documentation	27
OUTREACH	28
Network Partner Outreach	28
Target Population	29
Use of Outreach Materials	31
CLIENT INTAKE	31
Client Application Process	31
Client Intake by Office of Home Energy Programs	32
Client Intake by DHCD	33

Client Intake by LWA	34
Eligibility Determination	35
Income	36
Allowable Income	36
Income Documentation	37
Building Type Eligibility	39
Homeownership	40
Occupancy / Vacancy Eligibility	41
Re-Weatherization Eligibility	41
Other Eligibility Requirements	42
Group Homes and Shelters	43
Multi-Unit Eligibility	44
Multi- Unit Pre-Approval Process	44
Multi-Unit Income Verification	45
Client Denial and Hearing Process	47
Denial Process	48
Review and Hearing Process	48
Procedures for Local Hearings	49
Procedures for State Hearings	49
LEAD MANAGEMENT AND SCHEDULING	50
Lead Distribution Process	50
Scheduling Process	51
Critical Medical Needs	53
Eligibility Verification	54
Required Job Forms	54
Permission to Enter Form	54
Building Owner Agreement	55
Tenant Synopsis of the Building Owner Agreement	56
Deferral Form	56
Tier 1 Job Completion Form	56
ENERGY AUDITS	57
General Energy Audit Requirements	57
Introduction and Visual Inspection	59
Diagnostic Testing	59
Direct Installs	60

Client Education	60
Audit Documentation	61
Job Classification	62
DOE Deferral Process	62
EmPOWER Tiered Job System	64
Differences between Denials and Job Levels	64
EmPOWER Denial	66
EmPOWER Tiered Job Levels	67
EmPOWER Tier 1 Job	67
EmPOWER Tier 2 Job	68
EmPOWER Tier 3 Job	68
Multi-Unit Energy Audits	69
WORK SCOPE	69
Weatherization Standards	70
Leveraging Multiple Funding Sources	70
Funding Sources Compatibility and Rules	71
Documentation of Leveraged Funds	72
Allowable Measures	74
Energy Measures	74
Appliances and Baseload	76
Lighting	81
Domestic Hot Water Systems	83
Heating and Cooling	89
Distribution Systems	101
Air Sealing	104
Insulation	105
Mobile Home Measures	113
Health & Safety	115
Air Conditioning and Heating Systems	117
Air Pollutants	119
Asbestos in Siding, Walls, and Ceilings	119
Asbestos in Vermiculite	120
Asbestos on Pipes, HVAC, or Other Small Surfaces	121
Biological and Unsanitary Conditions	122
Building Structure and Roofing	123

Code Compliance	124
Combustion Gases	124
Electrical	125
Fuel Leaks	126
Gas Ovens and Ranges	126
Hazardous Material Disposal	126
Injury Prevention	126
Lead Based Paint	127
Mold and Moisture	127
Pests	128
Radon	129
Safety Devices	129
Occupant Health and Safety	130
Ventilation and Indoor Air Quality	130
Window and Door Replacement	131
Worker Safety	131
Incidental Repairs	131
Measure Pricing	132
Job Requirements	133
Historic Preservation Review	134
Desk Review	135
The Desk Review Process	135
Desk Review Documentation	137
WEATHERIZATION SERVICE DELIVERY	138
Service Delivery Process	138
Change Orders	138
Multi-Unit Property Service Delivery	139
QUALITY CONTROL AND QUALITY ASSURANCE	140
Quality Control Inspections	140
QCI Requirements	140
QCI Documentation	142
No Show Policy	142
Quality Assurance Inspections	143
QA Requirements	143
QA Documentation	143

INVOICING AND PAYMENTS	144
Invoicing Process	144
Invoice Requirements	149
TRAINING AND TECHNICAL ASSISTANCE	151
Staff Certifications	151
Required Staff Qualifications and Certifications	151
Process for Submitting Staff Certifications	153
DHCD Training Courses	153
Technical Assistance	154
Performance Expectations	154
Technical Assistance Process	154
Training and Technical Assistance Reimbursement Process	155
Pre-Approval for T&TA Expenses	157
Reimbursement Request for Completed T&TA Activity	158
DOE PROCUREMENT	158
Procurement Procedures	158
Vehicle Purchase	163
Capital Equipment Purchase	163
Tools and Equipment	164
DOE Recordkeeping	165
Use of Logs	165
Financial Management System	166
Reporting Requirements	167
Close Out	167
DOE AGENCY MONITORING	169
Program Oversight and Monitoring	169
Comprehensive Annual Subgrantee Evaluations	169
Technical Field Representative Review/Visit	170
Fiscal Field Representative Review/Visit	171
APPENDIX	173
EmPOWER Approved Measure List	173

SECTION A - INTRODUCTION

1. DEFINITION OF TERMS

In order to clarify the policies and procedures contained in the POM it is understood that the following definitions apply throughout:

Glossary	
Agency	The company (SWC) or the organization (LWA) of a Network Partner as a whole.
At-Risk Occupant	A person with a medical condition documented by a physician that requires air conditioning.
BPI	The Building Performance Institute provides certification for home energy professionals and is referenced as the auditing standard required in the weatherization program.
Building Envelope	The area of the building that encloses the conditioned space. Except for the following situations, only the exterior four walls to the ceiling under the attic and the floor above the unheated basement area are considered part of the building envelope. The floor of a unit built on stilts or is above an unheated crawl space is considered a part of the building envelope. The roof of a building that has no ceilings (or that is part of the ceiling) is considered part of the building envelope.
Child	A person under 18 years of age.
Code of Federal Regulations (CFR)	The Code of Federal Regulations (CFR) is the codification of the general and permanent rules published in the Federal Register by the departments and agencies of the Federal Government produced by the Office of the Federal Register (OFR) and the Government Publishing Office. 10 CFR Part 440 and 2 CFR Part 200 provide the framework for the DOE Weatherization Assistance Program.
Continuous Ventilation	Sometimes referred to as general, central, or whole-house ventilation. Should be quiet, low volume, and simple to operate.
DHCD Field Guide	The DHCD Field Guide is used as the standard for the installation of weatherization measures for DHCD energy efficiency programs.
Disabled/Handicapped	Any individual who is [1] handicapped as defined in Section 7 (6) of the Rehabilitation Act of 1973; [2] under a disability as defined in Section 1614 (a) (3) (A) or 223 (d) (i) 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.
Deferral	Weatherization to a home may be deferred if the property has health and safety issues or require other repairs that prevent weatherization from occurring. If not further specified, a deferral equates to a Tier 1 job in the EmPOWER program. In some cases (as specifically defined) a DOE deferral may equate to an EmPOWER denial.

DOE	The U.S. Department of Energy (“DOE”) provides funding to states, U.S. overseas territories, and Indian tribal governments, which manage the day-to-day details of the program. These governments, in turn, fund a network of local community action agencies, nonprofit organizations, and local governments that provide these weatherization services in every state, the District of Columbia, U.S. territories, and among Native American tribes.
Dwelling Unit	A house, including a stationary mobile home, an apartment, a group of rooms, or a single room occupied as separate living quarters.
ECM	An Energy Conservation Measure (“ECM”) is a procedure including materials and installation, which is considered for its anticipated energy savings. An ECM often includes installation of ancillary items but does not include Incidental Repair Measures (IRM).
Elderly Person	A person who is sixty (60) years of age or older.
EmPOWER	Energy efficiency programs that are funded and regulated through the EmPOWER Maryland Act. In context of this document the term refers to the Low-Income Energy Efficiency Program (LIEEP) portion of the EmPOWER programs.
Family Unit	All persons living together in a dwelling unit.
Funding Period	The time period in which the weatherization funds are available for use by the LWA or SWC. No funds can be expended before the start date of the performance period and may not be expended after the close of the period.
Funding Source	The source of weatherization and/or energy efficiency funds used to reimburse the LWA or SWC for costs associated with providing services to eligible clients.
Hancock Software	DHCD currently uses the Hancock Energy Software system as the program management software for its energy efficiency programs. Hancock is the central software program used by DHCD and all network partners to track job progress and consolidate information such as dwelling units, priority service delivery, work orders, inspection status, required forms, and invoicing.
HBEP	DHCD’s Housing and Building Energy Programs unit, also referred to as DHCD’s energy or weatherization programs unit.
HEAT	Hancock Energy Audit Tool.
HEP Certifications	Home Energy Professional (HEP) certifications are nationally recognized professional certifications for weatherization and home performance that have been adopted as requirements by the U.S. Department of Energy (DOE) Developed in coordination with the National Renewable Energy Laboratory (NREL), and administered by the Building Performance Institute, Inc. (BPI), these certifications seek to ensure a standardized approach to quality in the field.
Incidental Repair Measures (IRM)	Incidental Repair Measures (IRM) include materials and installation which are performed because they are necessary for the preservation and effectiveness of one or more energy savings measures. Such repairs include, but are not limited to drainage (gutters, downspouts, extensions, flashing, sump pumps, etc.), electrical, and providing protective materials, such as paint, used to seal materials installed.

Intake	The application processes necessary to enable certification of an application.
Lead	A "lead" is a potential client referred to the network partners by DHCD.
Leverage Activity	Blending two or more compatible funding sources to maximize the weatherization services.
LIHEAP	Low-income Home Energy Assistance Program (LIHEAP) funds also known in Maryland as Maryland Energy Assistance Program (MEAP) are federal funds provided to DHCD through the Maryland Department of Human Resources Office of Home Energy Programs (OHEP) for furnace repair or replacement.
Local Weatherization Agency (LWA)	Also referred to as the "sub-grantee", "network partner" and "local service provider", the LWA is the nonprofit organization, community action agency or local government selected to administer the DOE WAP and is responsible for providing direct weatherization services.
Network Partner	An LWA or SWC under contract with DHCD to perform weatherization services.
OHEP Certification	A final determination concerning program income eligibility of an applicant by the Maryland Department of Human Services (DHS), Office of Home Energy Programs (OHEP), resulting in the applicant's receipt or denial of energy assistance benefits.
PAC	As required by federal regulations for the DOE WAP, a Policy Advisory Council (PAC) assists in the development and implementation of the WAP and advises HBEP on a broad range of issues relating to WAP.
QA Inspector	DHCD Quality Assurance Inspectors assess quality of work order measures and compliance; appropriate and allowable materials; appropriateness and accuracy of energy audits (no missed opportunities); comprehensive final inspections; safe work practices, such as lead safe weatherization protocols; and other factors relevant to on-site work.
QC Inspector	The Quality Control Inspector is a BPI certified professional responsible for ensuring and certifying to DHCD that all work on the measures list for a dwelling unit is done correctly and completely in accordance with program requirements.
Re-certification	Re-certification must occur when an application is more than twelve (12) months old and the LWA or SWC have not "begun work" (starts with energy audit) on the dwelling unit. A second confirmation of the information must be performed. Re-certified applications are again eligible for inspection and receipt of weatherization.
Re-weatherization	A unit receives additional weatherization services after it was previously weatherized. Each funding source has a "lock-out" period for re-weatherization that are described in the sections below.
Re-Work	The LWA or SWC returns to a completed unit to perform additional work or make corrections in response to a QA or QC finding. Processing through Hancock is required.
RGGI/SEIF	Regional Greenhouse Gas Initiative (RGGI) funds also known in Maryland as Strategic Energy Investment Fund (SEIF) funds, are non-federal resources that are used for weatherization assistance, furnace repair and replacement, and resolution of health and safety items incidental

	to the provision of weatherization with DOE funded units.
Separate Living Quarters	Living quarters in which the occupants do not live and eat with any other persons in the building and have either a direct access from the outside of the building or through a common hall or complete kitchen facilities for the exclusive use of the occupants. The occupants may be a single-family, one person living alone, two or more families living together, or any other group of related or unrelated persons who share living arrangements.
Single-Family Dwelling Unit	A structure containing no more than one dwelling unit.
SIR	Savings-to-Investment Ratio: The ratio of life-cycle savings to life-cycle costs adjusted for inflation, energy-cost escalation, and the time value of money. This number is the measure used for cost effectiveness.
SWC	Statewide Weatherization Contractors (“SWC”) perform weatherization work for the Department under contract with the Department. SWCs are ineligible to receive DOE WAP funds.
SWS	Standard Work Specifications (SWS) define the minimum requirements to ensure that the work performed during energy upgrades in single-family, and manufactured homes is effective, durable, and safe.
T&TA	Training and Technical Assistance is provided to support program operations such as analysis, measurement and documentation of program performance, skill development, and local monitoring, to improve program effectiveness.
Title XVI	To be used interchangeably with those income groups known as SSI (Supplemental Security Income).
WAP Certification	A final determination concerning the application for program eligibility based on income and ownership.
waptac.org	The Weatherization Assistance Program Technical Assistance Center website is an invaluable repository of information related to the DOE WAP program and weatherization practices.
WPN	DOE WAP Grant Guidance documents are issued by DOE as Weatherization Program Notices (WPN).
WXN	Acronym for Weatherization

2. HOUSING AND BUILDING ENERGY PROGRAMS

Weatherization has evolved considerably since its inception in the late 1970's. Today's weatherization comprises a comprehensive series of energy efficiency measures based on a sophisticated analysis of the individual home. This analysis uses a whole-house approach, modeling the entire existing conditions of a structure and the proposed improvements in great detail to maximize energy and dollar savings. Because of this rigorous approach and the building science that supports the improvements, low-income weatherization programs have become leaders in advancing residential building science and in helping to create a profitable new industry that provides home energy efficiency services to the wider public, regardless of income.

The Maryland Department of Housing and Community Development's (DHCD) weatherization and energy efficiency programs are administered by DHCD's Housing and Building Energy Programs (HBEP) unit. These programs assist eligible low-income households with the installation of energy conservation measures in their homes. Energy efficiency projects are intended to reduce both the consumption of energy and maintenance cost for these homes while improving health and safety for the occupants. DHCD's Housing and Building Energy Programs (HBEP) staff provides the management, technical assistance and administrative support for its weatherization programs

2.1. GRANT BASED ENERGY PROGRAMS

DHCD administers low-income weatherization programs statewide, utilizing a number of funding sources that include the U.S. Department of Energy's Weatherization Assistance Program (DOE WAP), the EmPOWER Low-income Energy Efficiency Program (LIEEP), the Low-income Home Energy Assistance Program (LIHEAP, known in Maryland as the Maryland Energy Assistance Program "MEAP"), and the Regional Greenhouse Gas Initiative (RGGI), known in Maryland as the Strategic Energy Investment Funds (SEIF). These funds are disbursed as contracts and grants to participating network partners to install energy efficiency and health and safety measures at no cost to low-income homeowners.

Specific funding source guidelines are included in this POM for reference and marked in program specific colors as described in sections 2.1.1 through 2.1.4. When there is a conflict between funding source specific guidelines and DHCD Energy Efficiency Programs policies, the policies stated for each funding source prevail.

2.1.1. DEPARTMENT OF ENERGY WEATHERIZATION ASSISTANCE PROGRAM

The Department of Energy's Weatherization Assistance Program (DOE WAP) reduces energy costs for low-income families by increasing the energy efficiency of their homes, while ensuring their health and safety. Funds are used to improve the energy performance of dwellings of families in need using the most advanced technologies and testing protocols available in the housing industry. The U.S. Department of Energy provides funding to states, U.S. overseas territories, and Indian tribal

governments. These governments, in turn, fund a network of local community action agencies, nonprofit organizations, and local governments that provide these weatherization services in every state, the District of Columbia, U.S. territories, and among Native American tribes.

In Maryland, the Governor designates a Department within State government to serve as the administering agency for DOE's WAP. Maryland's Department of Housing and Community Development (DHCD), has administered the DOE WAP program in the state since 1987. DHCD administers the program through a network of highly skilled subgrantees that provide program services in each of the state's 23 counties and Baltimore City. Subgrantees provide energy-efficiency services through their own trained crews and/or by subcontracting work to local contractors. Program services are available to both homeowners and renters, with priority given to the particularly vulnerable such as the elderly, families with children, persons with disabilities, high residential energy users, and households with high energy burden.

The WAP State Plan is developed annually by HBEP staff as part of the State's application for federal WAP funds. The State Plan is used as an overall guide for program operation and outlines the State's objective for the expenditure of funds received from DOE. It identifies the local subgrantees contracted to carry out the State's WAP activities, projects the allocation to be awarded to each local subgrantee, and lists the number of units expected to be weatherized during the annual budget period.

Every fiscal year, before the State Plan is submitted to DOE for approval, it is reviewed by the Policy Advisory Council (PAC), and public hearings are held to obtain comments. The hearings provide an opportunity for subgrantees, local leaders, WAP beneficiaries, and other interested persons to comment on program operations, community needs, and subgrantee performance. Subgrantees are encouraged to publicize the hearings to WAP participants. The final State Plan is submitted to DOE for approval after consideration for comments received. The approved State Plan becomes part of the Weatherization Assistance Grant Agreement for the Local Weatherization Agencies.

Policies and requirements pertaining only to the **DOE WAP** program are marked in blue in this POM.

2.1.2. EMPOWER MARYLAND LOW INCOME ENERGY EFFICIENCY PROGRAM

In 2008, the Maryland General Assembly passed the EmPOWER Maryland Energy Efficiency Act, creating new opportunities for energy efficiency activities in Maryland. The legislation set a target reduction of 15 percent in per capita electricity consumption and demand by 2015 from a 2007 baseline. The legislation also provided for a surcharge to be assessed to ratepayers of the five participating electric utility companies in order to support programs designed to help meet the aggressive energy savings goal.

The EmPOWER programs are overseen by the Maryland Public Service Commission (PSC), which regulates gas and electric utility companies, and for-profit water and sewage companies in Maryland. The EmPOWER Maryland Energy Efficiency Act required the Baltimore Gas and Electric Company (BGE); Potomac Edison Company (PE); Potomac Electric Power Company (Pepco); Delmarva Power & Light Company (Delmarva); and Southern Maryland Electric Cooperative (SMECO) to submit for review to the PSC three-year plans detailing the provision of energy efficiency activities to all client classes, including

low-income households. Five separate low-income EmPOWER program components began operating under individual utility administration in 2009.

In April 2012, DHCD began administering the EmPOWER Low-income Energy Efficiency Program statewide. The EmPOWER Maryland Low-income Energy Efficiency Program (LIEEP), administered by the Maryland Department of Housing and Community Development (DHCD), helps eligible low-income households by installing energy conservation materials in their homes at no additional charge. Electrically heated or cooled clients of BGE, PE, Pepco, Delmarva and SMECO with incomes at 200 percent or less of the federal poverty level are eligible to participate in the program. Qualifying households become eligible for installation of energy-saving measures following a comprehensive home energy audit performed by an energy auditor who is a certified building science professional.

EmPOWER activities operate on a three-year cycle and require DHCD to submit a three-year program plan before each new cycle. The EmPOWER LIEEP plan defines the program and outlines methods, delivery and services with a goal of saving kWh for low-income electric clients. HBEP staff issue grant agreements to Local Weatherization Agencies (LWA) and contracts to State Weatherization Contractors (SWC) participating in the program.

Policies and requirements pertaining only to the **EmPOWER LIEEP** program are marked in green in this POM.

2.1.3. MARYLAND ENERGY ASSISTANCE PROGRAM

From November 1 (October 1 in Garrett County) - March 31 (“no heat season”) the Maryland Energy Assistance Program (“MEAP”) funds aim to resolve “Crisis - No Heat” situations. The program provides heating system repair and replacement for applicants with non-functioning heating systems. The Maryland DHCD’s Housing and Building Energy Programs administers the MEAP utilizing federal LIHEAP funding through an MOU with the Maryland Department of Human Services. Crisis cases have to be resolved on an expedited timeline as defined in project guidance.

Policies and requirements for the **MEAP** funds generally follow DOE requirements, unless otherwise marked in orange in this POM.

2.1.4. REGIONAL GREENHOUSE GAS INITIATIVE / STRATEGIC ENERGY INVESTMENT FUND

The Maryland DHCD’s Housing and Building Energy Programs receive Strategic Energy Investment Funds (SEIF) from the Maryland Energy Administration (MEA) through an MOU. The SEIF funds are specifically to be used with the DOE WAP. The RGGI/SEIF funds permit greater flexibility to retrofit homes that would otherwise not be eligible under the program due to structural and/or health and safety issues and help improve the efficiency of homes retrofitted under WAP through installation of Energy Star products, when possible.

Policies and requirements of the **RGGI** funds follow DOE guidance, unless otherwise marked in purple sections in this POM.

2.2. STATE ADMINISTRATION

DHCD's Housing and Building Energy Programs (HBEP) provides the funding, management, technical assistance and administrative support for its single-family and multifamily weatherization and energy efficiency programs. All current guidelines for the various single-family weatherization programs administered through DHCD (i.e. funding restrictions, income level, assistance per dwelling unit, etc.) are incorporated in this manual.

2.2.1. SUBGRANT AGREEMENTS AND CONTRACTS

DHCD utilizes a network of local non-profit Local Weatherization Agencies (LWA) and for-profit State Weatherization Contractors (SWC) to perform program related services for eligible recipients. A Grant Agreement is executed with an LWA whereas a contract is executed with an SWC. These documents define the relationship and expectations between the Department and the LWA or SWC and convey the program requirements including any incorporated governing technical guides, funding sources, funding amounts, reporting requirements, and performance periods.

2.2.1.1. DEBARMENT AND TERMINATION

Suspension or debarment of Network Partners from all programs of the Department will follow the procedure outlined in the Code of Maryland Regulations (COMAR) 05.01.05.01, et seq.

To the extent that any such suspension or debarment results in the termination of an Agreement, the procedures for notice and opportunity to be heard, as outlined in COMAR 05.01.05.01 et seq., will govern.

Termination as used in this section, does not include contract non-renewal. DHCD has no obligation to renew a Network Partners agreement that has expired. A decision by DHCD not to renew an agreement with an existing Network Partner may be made when funding is not available or not sufficient to provide a Network Partner with funding or when DHCD determines that it would be in the best interest of the State not to renew the agreement. The notification process described above only applies to contract termination and does not apply to contract non-renewal.

2.2.2. PROGRAM OPERATIONS MANUAL

The Weatherization Program Operations Manual (POM) is intended for use by HBEP and all Network Partners. This Manual is HBEP's resource to consolidate all policies germane to the operation of its single-family weatherization programs into a single document. The remaining sections of this manual describe the many requirements each service provider must adhere to when performing services for DHCD's energy efficiency programs. As federal, State, PSC or other regulatory requirements necessitate, DHCD will periodically update the information provided in this manual via use of Directives and DOE

WAP Weatherization Program Notices (WPNs).

It is the responsibility of SWC and LWA staff to be familiar with the full contents of this manual and perform program services accordingly.

2.2.2.1. DIRECTIVES AND WPNs

Directives and WPNs make “Emergent Policy Changes” to the POM. Directives and WPNs are effective as of the date on the corresponding Policy Memo and Notice, unless another date is specified within the Policy Memo/Notice. Revisions will be applied to the POM and an updated version of the POM will be distributed to the network partners and made available online when such changes occur.

2.2.2.2. PROGRAM GUIDELINES

Projects shall be completed in accordance with Program Guidelines for the appropriate housing type (single-family, manufactured, and multi-family). Program Guidelines collectively include the federal and state regulations, State Plan, MD SWS aligned Field Guide, contract/grant agreement, Directives/Program Notices, and the Weatherization Programs Operations Manual.

Regulation and Policy define allowable program work. The Standard Work Specifications (SWS) describe acceptable outcomes for weatherization or home performance upgrades - effective, durable, and safe improvements for each housing type.

DOE	Work performed under the above mentioned documents is governed by the federal regulations, 10 CFR Part 440. The annual Maryland State Plan Application identifies how the State will administer the program in accordance with federal regulations. This includes “Technical Guides and Materials”. All measures and incidental repairs performed must meet Standard Work Specifications. In all cases, Program Guidelines should compliment each other, not conflict. If conflict in Program Guidance is identified it should be brought to the Program Manager’s attention immediately.
------------	---

EmP	Work performed under the above mentioned documents is ultimately governed by the agency’s agreement with DHCD and the general requirements defined in the RFP or RFA. Where conflict may occur the following hierarchy applies: <ol style="list-style-type: none">1. Contract or Grant Agreement2. RFP or RFA requirements3. Network Partner’s proposal4. SWS aligned Field Guide5. POM
------------	---

2.2.3. PROGRAM MANAGEMENT SOFTWARE

The Hancock Energy Software (HES), a web-based program management system, is used to manage the weatherization programs. Network Partners can access the system via a high-speed internet connection. Network Partners are required to enter data into HES, from initial client application and intake through to the energy audit and work order, and ending with invoicing of completed jobs.

DHCD monitors the information entered to make budget and lead allocation assessments, and complete monthly reports. It is imperative that Network Partners keep the system updated at each step of a project. Any activity performed for a client or job must be documented in Hancock within one week of the activity occurring. Projects not entered accurately and timely as they move from one stage to another in real time, are at risk of losing funding when DHCD reviews production and budget projections.

The Hancock user manual is included in the appendix of the Program Operations Manual. Training on the Hancock system is offered by DHCD at request, and there is phone, email (support@hancocksoftware.com), and chat support during office hours.

2.2.3.1. HANCOCK USER ACCOUNT REQUESTS

Each network partner employee that performs work in DHCD's single family grant programs is required to have a Hancock user account. To request a user account, fill the employee's information in this [User Account Request Form](#) and upload [necessary certification documentation](#). DHCD will validate the certification requirements and provide a Hancock account for the new user within 2 business day of receiving all required documentation. Be sure to have the employee's contact information and required certifications on hand before filling out this form.

Staff who also perform work as a subcontractor for other agencies require a separate Hancock account for each agency.

2.2.4. NETWORK PARTNERS ROLES AND RESPONSIBILITIES

Network Partners perform program services directly to the program recipients. They are the first point of contact for low-income households, who are the primary beneficiaries of weatherization assistance. They are also the contact for multi-family building owners. Network Partners perform most of the functions that are necessary to meet program goals and follow program procedures to ensure compliance with all program requirements.

Network Partners are responsible for ensuring that weatherization funds are only expended on approved program activities to eligible households, to achieve energy efficiency and technical performance goals of the program, and for educating program participants, and their building owners. Together with HBEP and other program partners, Network Partners foster the technical advancement of the program and provide the public "face" of weatherization. Network Partners are also responsible for

cooperating with HBEP with providing information to DOE, PSC, to other State agencies such as the Department of Human Services, and to the public.

Network Partners are responsible for meeting all of the terms and conditions of this manual and other binding documentation. Any Network Partner with questions on any provision in this manual is encouraged to contact HBEP program managers. It is the responsibility of all Network Partners to read and understand this manual and to provide training for internal staff to know and understand its contents.

2.3. LOCAL WEATHERIZATION AGENCIES

10 CFR Part 440 requires that the DOE program services are delivered by a Community Action Agency (“CAA”) or other public or private non-profit entity. An entity that receives WAP grant funds from DHCD to manage a weatherization project is considered a WAP subgrantee, also known as a Local Weatherization Agency (“LWA”).

An LWA may provide services either statewide or regionally for various programs and funding including the DOE WAP, EmPOWER LIEEP, and other opportunities as they become available.

The CAA or other public or nonprofit entity is selected through the Request for Application (RFA) process considering: (1) the subgrantees experience and performance in weatherization or housing renovation activities; (2) experience in assisting low-income persons in the area to be served; and (3) the capacity to undertake a timely and effective weatherization program. Prior to an award, the entity is affirmed by public comment received during a public hearing.

In selecting a subgrantee, CFR 440.15 requires preference to be given to any CAA or other public or nonprofit entity which has, or is currently administering, an effective program. Program effectiveness is evaluated with consideration for a number of factors including but not limited to: (1) the extent to which the past or current program achieved or is achieving weatherization goals in a timely fashion; (2) quality of work; (3) the number, qualifications, and experience of the staff members of the subgrantee; and (4) the ability of the subgrantee to secure volunteers, training participants, public service employment workers, and other federal or state training programs.

DOE

Required Subgrantee Documentation

The following documentation must be submitted to DHCD by each subgrantee and must be appropriately updated annually:

All Subgrantees:

- Subgrantee Articles of Incorporation, including amendments to date;
- Subgrantee’s current corporate by-laws;
- List of the current members and officers of the board of directors
- List of individuals authorized to sign contracts and amendments on behalf of the subgrantee

- Applicable Indirect Cost Rate approval documentation
- Evidence of required insurance
- A current organizational chart showing management hierarchy and division of responsibilities.
- Most recent executed contracts and date/time stamped documentation of contractor verified SAMs status.
- Written Policies and Procedures Manual (specifically on the following):
 - Personnel policies or Employee Handbook
 - Financial policies and procedures
 - Procurement policies and procedures
- Most recent Single Audit (if applicable)

Additional document for units of local government:

- A letter, on appropriate letterhead and signed by the chief elected official, stating that the organization is a division, office, department, etc. of a unit of local government.

EmP

A subgrantee cannot perform work as both an LWA and an SWC for the same program.

2.4. STATE WEATHERIZATION CONTRACTORS

State Weatherization Contractors (SWC) are eligible to receive EmPOWER LIEEP and other funds, and can perform services for DOE WAP as a contractor to LWAs. As a for-profit entity, SWCs are not eligible to receive DOE funds directly.

SWCs are selected through a Request For Proposal (RFP) through the State of Maryland procurement process based on experience, capacity, capability, and pricing and provide weatherization services to eligible clients statewide.

2.5. SUBCONTRACTORS AND MINORITY BUSINESS ENTERPRISE (MBE) GOALS

LWAs and SWCs may subcontract some of the services required for performing work as defined in their agreements and allowed throughout this POM. The Network Partner is responsible to train their subcontractors and oversee their work to ensure compliance with program policies. Changes in program policy must be relayed to the relevant subcontractors.

DOE

Subgrantees must take all necessary affirmative action steps to assure that minority businesses, women's business enterprises, and labor surplus area firms are used when possible. Affirmative steps must include:

1. Placing qualified small and minority businesses and women’s business enterprises on solicitation lists;
2. Assuring that small and minority businesses, and women’s business enterprises are solicited whenever they are potential sources;
3. Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses and women’s business enterprises;
4. Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women’s business enterprises;
5. Using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce; and
6. Requiring the prime contractor, if subcontracts are to be let, to take the affirmative steps listed in paragraphs 1-5 of this section.

See [this section](#) for comprehensive guidance on procuring subcontractors.

EmP

SWCs are required to adhere to certain MBE subcontractor goals as identified in the RFP applicable to the performance period

Contractors and MBE subcontractors are required to submit monthly payment reports to DHCD Office of Fair Practices. Liquidated damages may apply in the event the contractor fails to comply with the requirements of the program.

For details on the process, see MBE Attachment D-1A MBE Utilization and Fair Solicitation Affidavit & MBE Participation Schedule – Instructions.

MEAP

MBE subcontractor goals are not applicable to the MEAP.

3. NETWORK PARTNER ADMINISTRATIVE MANAGEMENT

3.1. BUDGET MANAGEMENT AND PRODUCTION

The HBEP single family programs use Hancock for budget management. After contract / grant agreements are in place, budgets will be awarded through allocations in Hancock by funding source.

Each funding source contains individual budget categories. These budget categories allow DHCD to track spending and assist in fulfilling reporting requirements.

Network Partners are required to monitor their expenditures and production throughout each budget period and make adjustments necessary to complete their production goal and fully expend their budget period allocation. Partners should assess their expenditures and production each month. This

assessment should review expenditures and production to date, as well as any anticipated expenditures and production through the end of the budget period.

If the total projected expenditures or production for the budget period has changed significantly from the last approved budget for that budget period, or if the projected expenditures within budget categories vary significantly from the last approved budget for that budget period, HBEP program staff should be consulted to determine whether a budget amendment is necessary. DHCD has the ability to increase or decrease a Network Partner's allocation at its discretion. If an allocation adjustment is required, the Network Partner will be notified in writing for each occurrence.

It is the responsibility of the Network Partner to analyze their budget and manage production and expenditures accordingly.

Program managers connect with network partners at least quarterly to assess the budget status.

Client Status Report in Hancock

The client status/Pipeline Report is designed to provide DHCD a status update of all jobs listed in Hancock. This report is used to help HBEP staff determine budget allocation and lead distribution. The network partners can use it as a tool for managing their budget balances. It is the responsibility of the network partner to ensure the status of each job is properly reflected in Hancock. Spreadsheets and written updates will not be accepted. Please follow the below process to verify every job being serviced is accurately reported in Hancock:

- Main Hancock Menu; expand Job Menu and select Client Status Report
 - Select the funding source
 - Leave the county blank, unless county specific job status is required
 - The target date will default to the current date, this can be changed if needed
- Hit search
 - Click on the blue numbers to see the specific client detail for each status. This detail will assist in determining if a job has the proper status
- Bottom left of the screen select pipeline report
 - The popup window details the current status of budgets, budget balances, and amount of jobs in the production pipeline.

DOE

Bank Account Requirements

Insured bank accounts

Insured accounts are required to maintain advances of federal funds. WAP funds must be deposited in either a financial institution insured by the Federal Deposit Insurance Fund Corporation or a credit union insured by the National Credit Union Share Insurance Fund.

Interest-Bearing Accounts

Interest-bearing accounts are required to maintain advances of federal funds. It is a

requirement to remit interest in excess of \$500 per year to DHCD on a quarterly basis.

Coordination with Other Programs

DHCD recommends that where WAP will be leveraged with other development subsidies to preserve and enhance affordable housing, subgrantees should engage the housing provider as early as possible.

Coordination will be necessary to integrate WAP work into the larger project, and energy audits can be a useful tool to help define priorities in the overall scope of work. Both parties should be familiar with the goals and restrictions of all of the financing sources and should discuss in advance how the subgrantee's work will be coordinated within the project schedule.

DHCD is committed to an open and flexible approach to work strategically with WAP subgrantees and local partners to maximize resources, save energy, and preserve affordability.

Although coordination is strongly encouraged, subgrantees are reminded that there are core program principles that must be maintained as follows:

- Assisted households must be eligible under WAP rules; all WAP policy must be followed.
- There must be an approved DOE energy audit with an evaluation of energy-related health and safety (H&S) conditions, analyzing existing building conditions and building energy use. There must also be a written scope of the work that documents the work that will be funded by WAP and the work that will be funded by other sources.
- Material and installation standards must meet DOE WAP requirements.

Program Income

Program Income is gross income earned by the recipient that is directly generated by supported activity or earned as a result of WAP activities. Program Income includes income from fees for services performed, the use or rental of real personal property acquired under the federally-funded project, the sale of commodities or items fabricated under an award, license fees and royalties on patents and copyrights, and from payments of principal and interest on loans made with WAP funds. Interest earned on advances of DOE funds is not Program Income. Program Income does include rebates, credits, discounts, etc., or interest earned on any of them.

Program Income funds include funds received from rental of WAP tools and equipment for fee-for-service activities. Before Program Income funds can be expended, a Program Income budget should be submitted to the Program Manager for approval. The plan must be prepared at the beginning of the annual budget period and may be modified during the budget period.

- Program Income funds must be accounted for separately and expended before any

other program funds are spent.

- Up to 10% of the Program Income funds may be used for T&TA.
- A minimum of 80% of the funds received must be used for labor, materials and program support, in compliance with DOE regulations.
- All Program Income received during a given budget period must be identified in the Unaudited Financial Statements.
- Subgrantees must report on the receipt and expenditure of Program Income on a quarterly basis during the desk review process.
- Program Income received within an annual budget period must be spent before any other funds are requested from DHCD.
- DOE will maintain a reversionary right to all tools and equipment purchased with Program Income.

Interest income earned on Program Income funds may be retained by the subgrantee, and shall be used at the discretion of the subgrantee's board to further the corporate purposes of the subgrantee organization.

Fee-for-Service Activities

DHCD encourages subgrantees to seek out other resources to address the energy and affordable housing needs of low-income households in their community. WAP subgrantees may sometimes engage in activities that provide service to low-income and other households across the State under contract to utilities or other public agencies. These activities must be performed on a fee-for-service basis by the subgrantee where:

1. services are provided to households that are not eligible for WAP (e.g., do not meet WAP income eligibility limits).
2. services are not coordinated services provided in conjunction with WAP for an eligible household.

Subgrantees who engage in fee-for-service activities are reminded that their primary responsibility in accordance with the terms and conditions of their contract with DHCD is the implementation and operation of the WAP. WAP subgrantees are required to provide the highest quality service to assisted households, while meeting all federal and state requirements and providing work of the highest quality.

The following minimum requirements must be met by WAP subgrantees engaging in fee-for-service where WAP-funded staff, materials or other resources are shared in order to continue to receive WAP funding from DHCD:

1. Subgrantees must notify the HCR regional supervisor, in writing, of any fee-for-service activity prior to commencement of that activity, and must complete the Fee for

Service Worksheet ([Form #13](#)) for each project.

2. Subgrantees must enter into written agreements for any fee-for-service activities and provide the HCR regional supervisor with a copy of that written agreement. Prior approval to participate in fee-for-service activities must be obtained from the DHCD regional supervisor ([Form #20B](#)).
3. Subgrantees must establish a separate and distinct operation to perform fee-for-service work, and must establish and maintain separate accounting records for this work. All fee-for-service activities must be supported by books and records separate and distinct from those required for the WAP. DHCD staff must be provided with access to these books and records upon request.
4. Subgrantees must notify the DHCD regional supervisor, in writing, of any fee-for-service activity where federally-funded tools, equipment, facilities, or shared staff are planned to be used to complete fee-for-service activities.
5. Subgrantees operating fee-for-service activities that utilize tools and equipment purchased with federal WAP funds must pay rental fees to the WAP in accordance with prevailing rates established by private tool and equipment rental firms in the surrounding area. These rental fees are considered Program Income.
6. Subgrantees operating fee-for-service activities out of facilities paid for with federal WAP funds must ensure that the WAP is reimbursed for the use of those facilities.
7. The use of vehicles purchased with WAP funds may be allowed; if vehicles purchased with WAP funds are used in a fee-for service operation, the WAP account must be reimbursed for use of the vehicle at the IRS mileage rate.
8. Rental of WAP tools and equipment is only permitted if a price list for a standard list of “tool kits” that are needed for the tasks that the WAP tools and equipment are used for has been established. This price list must be used by the subgrantee as the basis for the cost for the specified tasks and the rental cost for the WAP tools and equipment.

Subgrantees must reimburse the WAP program on a monthly or quarterly basis, in consultation with DHCD regional supervisor, using information collected regarding the fair market value for use of tools and equipment during the period.

Subgrantees must comply with all federal and state labor regulations (including prevailing wage requirements, when applicable) regarding the employment and relevant of staff in activities outside the normal scope of their employment and relevant overtime compensation. It is not sufficient to claim that staff is performing fee-for-service activities on nights and weekends. These activities must be documented by payroll records that show that staff are working on these activities at times other than those covered by the WAP contract. In cases where fee-for-service activities are performed by staff funded by the WAP during times budgeted in the WAP contract, the program budget must be adjusted accordingly.

Subgrantees engaged in fee-for-service activities may not advance WAP funds to pay for staff salaries, materials, subcontracts, or any other expenses incurred as a result of fee-for-service activities. Subgrantees may not pay for these activities through the WAP in the first instance. This would constitute a loan of public funds to a private enterprise which would be providing it with an unfair advantage over potential competitors. Subgrantees must fully fund these types of activities with non-program funds.

Subgrantees must be familiar with the provisions under the DOE Financial Assistance Rule [10 CFR Part 200.313 (c) (3)], which regulates the use of equipment acquired with grant funds. Specifically, it states that “the non-Federal entity must not use equipment acquired with the federal award to provide service for a fee that is less than private companies charge for equivalent services unless specifically authorized by Federal statute for as long as the Federal government retains interest in the equipment.”

Funds received as a result of fee-for-service activity are considered agency income, not Program Income; therefore, the use of these funds is unrestricted from the perspective of the WAP. However, subgrantees should be careful to make sure that the receipt of these additional funds does not legally affect their not-for-profit status, which would affect their subgrantee status.

Subgrantees should also involve their accountant and counsel in setting up fee-for-service components to make sure that all financial and legal matters are established and maintained as separate and distinct “arm’s-length” entities from the federally-funded WAP.

Subgrantees that are using tools and equipment purchased with WAP funds as part of a fee-for-service activity are encouraged to use earned agency income to purchase the necessary tools and equipment for this activity. It is expected that subgrantee fee-for-service components will be limited to three years. In any case, where a subgrantee proposes to continue to rent these tools and equipment from the WAP beyond three years from the date when the fee for service component first originated, approval must again be obtained by the DHCD regional supervisor.

Conflict of Interest

Each subgrantee must maintain written standards of conduct governing the performance of its employees engaged in the award and administration of contracts (2 CFR 200.112). No subgrantee employee, officer, or agent shall participate in the selection, award, or administration of a contract supported by federal funds if a real or apparent conflict of interest would be involved.

Such a conflict would arise when the employee, officer, or agent, any member of his/her immediate family, his/her partner, or an organization which employs or is about to employ any of the parties indicated herein, has a financial or other interest in the firm selected for an award. The officers, employees, and agents of the subgrantee shall neither solicit nor accept gratuities, favors, or anything of monetary value from subcontractors or parties to

sub-agreements (e.g., agreements governing procurement of materials).

The standards of conduct shall provide for disciplinary actions to be applied for violations of such standards by officers, employees, or agents of the subgrantee.

Subgrantee staff that act in a decision-making capacity with respect to WAP funds or are in a position to influence a decision (such as staff that determines the work scope on an assisted building) may not directly benefit from the investment of WAP funds. WAP funds may not be invested in buildings owned by officers, employees, or agents of the subgrantee, including investment in rental property owned by officers, employees, or agents, except as described in the following paragraph.

Assistance may be provided for residential units occupied by employees of the subgrantee who qualify as low-income and are not employed in a decision-making position provided that:

- all other program rules and guidance are adhered to.
- the subgrantee can demonstrate that the employee was not provided with greater opportunity to learn about the program or apply for assistance than other members of the community.
- prior approval is granted by the DHCD Program Manager.

Subgrantee staff acting either as individuals or on behalf of an outside contracting firm may not solicit or provide contractor services to low-income households who have received or been deemed eligible for WAP services. Low-income households seeking work from private contractors should be advised to consult with other sources. Also, subgrantee staff that offers other energy or building repair services for a fee to the general public may not also perform these same services for the subgrantee.

Any subgrantee staff member who originally establishes a relationship with the household as a representative of the WAP must not transition that relationship to one where they subsequently become a private contractor for the household. Subgrantee staff engaged in private contractor work are also prohibited from using subgrantee tools, vehicles, and equipment to perform this work, and must have their own privately owned tools, vehicles, and any other equipment when doing any contractor work not otherwise prohibited.

Subgrantees set up to perform services through a fee-for-service arrangement are not prohibited from providing such services as long as the subgrantee, and not an employee acting as an independent contractor, is paid for the service in accordance with all appropriate requirements related to this type of arrangement.

The following examples illustrate conflicts of interest that must be avoided by subgrantees:

Example A

The auditor from Subgrantee A goes to the home of an applicant to perform an inspection before the WAP work is begun. While explaining to the applicant what the WAP will provide, the auditor indicates that new prime windows will not be included in the scope of work, in response to questions by the applicant. The auditor remarks that he could install new

windows but the cost would have to be paid by the applicant.

The applicant states they would be willing to pay for new windows. The auditor responds that he could do this work for the applicant. The applicant agrees, and the auditor returns at a later date and completes this installation as a private contractor.

This is clearly a conflict of interest on the part of the auditor. While the subgrantee's code of conduct may not prohibit the auditor from engaging in any related outside business, under no circumstances should the auditor engage in or solicit business from an assisted household. When a subgrantee operates a fee-for-service component to their program in accordance with the guidance provided elsewhere in this manual, they may install windows through a separate agreement, following prior approval by DHCD, but subgrantee staff operating their own business may not contract separately with an applicant.

Example B

An ad is placed which advertises contractor services. The person providing these services is the director of the local WAP subgrantee and performs other contracting services on a part-time basis. The ad does not mention the local WAP program.

A homeowner seeing the ad is interested in having their roof replaced and calls the contractor. A price is agreed, and while replacing the roof the contractor mentions that he is also the director of the local WAP.

The homeowner has never heard of the program but applies and is deemed eligible and is placed on the waiting list. Now that this homeowner has become a WAP applicant, the WAP director can no longer engage in any private contractor work for the homeowner.

The initial agreement to install the roof might violate the subgrantee's code of conduct; therefore, the WAP director should first determine that outside employment is in fact permitted by the subgrantee. When the homeowner becomes a WAP applicant, a clear conflict of interest exists. The home owner must be referred to other contractors for any work that is outside the WAP scope of work.

Example C

An employee of the subgrantee also has an automotive service and repair business that she operates after regular business hours. This subgrantee employee cannot bid on or perform automotive repair work or provide other services or products to the subgrantee.

Example D

The subgrantee weatherization coordinator tells some subgrantee staff that additional funding will soon become available and that an outreach event will be conducted by the subgrantee the following week. He tells them that if they get on the list now, they will have a better chance of getting assistance than if they wait until the outreach event.

This is a conflict of interest because subgrantee staff who received advance notice of the outreach event would receive assistance sooner than other eligible households in the community. The subgrantee should not accept applications from employees that are aware of

the outreach event until after the event is held and must notify DHCD immediately if this principle is violated.

EmP DHCD loads a funding source and assign all funds to the “program operations” budget category. It is the responsibility of the Network Partner to move money to the appropriate budget categories using the “adjust budget” feature in Hancock.

MEAP LWAs will have three separate budget categories: H&S, Audit Fee, and Admin Fee. SWCs will have two budget categories: H&S and Audit Fee. Partners are expected to “move” funds around to the appropriate category.

Partners are required to submit weekly reports detailing the status of each assigned no heat case. The Client Status Report may be utilized for this purpose.

RGGI

3.1.1. PROJECT DOCUMENTATION

The Network Partner must implement and maintain record-keeping procedures that reflect effective and efficient program management and document all activities relating to delivery of weatherization services to eligible households. The Network Partner is also required to generate accurate reports regarding each weatherization project and the status of the program.

The Network Partner must develop and maintain an organized and usable filing system containing the information necessary to prepare all required reports. It is the responsibility of the Network Partner to ensure that all weatherization files are complete, accurate and accessible for review by DHCD and federal staff (if DOE WAP funds have been provided).

DOE Required File Documentation

The following documents must be maintained in each client file by all subgrantees in an organized manner so that they are readily accessible for review by DHCD staff. Documents can be in electronic or paper format or a combination of both.

1. OHEP/Weatherization Application
2. Proof of Ownership
3. Owner Agreement
4. Tenant Synopsis
5. Copy of Notice of Eligibility (LWA generated lead)

6. Invoices for completed WAP work (including materials purchased and any subcontracted materials and labor)
7. Historic Preservation Response Letter
8. Copies of bids
9. Copies of executed subcontractor agreements

Records related to the use of DOE WAP funds must be maintained and reasonably accessible for a minimum of 3 years following the close of the associated federal grant.

EmP EmPOWER does not require paper files. All files can be kept electronically.

3.1.2. REGULATIONS DOCUMENTATION

DHCD's weatherization programs, including DOE WAP and EmPOWER LIEEP, are governed by program regulations that define permitted activities. It is important that these regulations are maintained and accessible for easy reference in the network partner's filing system.

The file should contain at least the following for applicable awards:

- Program Operations Manual
- SWS-aligned Maryland Field Guide

DOE Additional documents required to be on file:

- DOE WAP State Plan
- Department of Energy Federal Regulations (10 CFR 440, 2 CFR 200, OMB circulars) and amendments
- Transmittal letters, technical assistance letters and other directive or guidance documents relating to DHCD's weatherization programs
- Annual Monitoring Reports

EmP Network Partners may keep regulations in electronic format and only the most recent version of the POM shall be referenced.

MEAP Network Partners may keep regulations in electronic format and only the most recent version of the POM and Program Year Guidance shall be referenced.

SECTION B - ENERGY EFFICIENCY PROJECT GUIDANCE

4. OUTREACH

4.1. NETWORK PARTNER OUTREACH

DHCD's Network Partners are expected to actively promote the programs they implement for the Department to all potential clients they interact with during any of their operations. This effort should not be limited to the energy efficiency programs the network partner performs on behalf of the Department, but may also include non-energy related non-profit programs or outside energy programs.

It is essential that network partners provide outreach so that all eligible households in their service area, including those with concentrations of minority groups or others that are not likely to apply without targeted outreach, are aware of the program. This may include outreach to neighborhoods or areas other than the one in which the network partner is located.

DOE Network Partners have an obligation to make sure that all eligible households in their service area have access to program services and to affirmatively market the program to those least likely to apply. Subgrantees should ensure that WAP information is readily available at all local human services and governmental agencies serving low-income persons and that staff of those agencies are familiar with WAP.

Network Partners need to have an adequate number of applicants available in order to provide WAP services to the number of dwelling units projected for any given year. In areas of the state where subgrantees have a difficult time obtaining enough applicants to fulfill their commitment to DHCD, outreach for applicants will play an essential role.

Outreach efforts must be made to provide information regarding the nature and existence of the program, eligibility requirements, the application process, and accessing the program. Outreach efforts should be aimed at other public and private organizations providing similar services as well as directly to the public through various types of public service announcements.

Network Partners must have written protocols in their operations manuals describing their outreach efforts and applicant selection process that address the demographics of their service area with specific reference to how they identify and serve owners and renters and other populations with special needs.

DHCD will provide additional leads to supplement the stream of applicants. It is the LWA's responsibility to notify DHCD when additional leads are needed.

Network Partners should not limit their waiting lists for assistance based on anticipated funding availability.

EmP

Network Partners are expected to perform additional outreach activities beyond their regular business operations to generate client leads to supplement the stream of leads supplied by DHCD to meet RFP responses and program production goals. Such activities may include mailers, email campaigns, networking with building owners and building owner associations, community events, etc. Network partners may perform such activities at their own discretion and timing depending on their own need for leads as long as the DHCD supplied client leads remain the priority for service. Please see section [3.2](#) for the appropriate use of marketing materials.

MEAP

Network Partners are not expected to perform additional outreach activities.

4.1.1. TARGET POPULATION

DOE

Priorities for Assistance

Subgrantees must have a written policy in their operations manual outlining how they prioritize and select households and buildings to be weatherized.

Subgrantees are required to provide weatherization services to clients based on the priorities defined in the DOE regulations, 10 CFR 440.3, to ensure that the most vulnerable households are serviced first.

It is the subgrantees responsibility to administer weatherization services based on the priorities however to assist with this requirement, DHCD has implemented the Client Priority Score, an automated algorithm provided by the Hancock Software. The Client Priority Score will assign points to each client based on data inputs and then determine the order in which services should be delivered to each household. Once the score is determined, each household will receive a "WAP Rank". Clients will be automatically filtered and listed in Hancock by the highest to lowest WAP Rank.

The priority score is defined below. In cases where all priorities are equal, time on the waiting list shall be used as the final deciding factor:

1. Priority for Elderly: Four (4) priority points are given to each elderly person residing in the household. Elderly is defined as age 60 or older.
2. Priority for Children: Four (4) priority points are given to each child under 5 residing in the household.
3. Priority for Persons with Disabilities: One (1) priority point is given to each person

with disabilities residing in the household.

4. High Residential Energy Users: One (1) priority point is given to high residential energy users.
5. Priority for Households with a High Energy Cost Burden: Up to four (4) priority points can be given to households with a high energy cost burden. The high energy burden calculation percentage is defined as the total annual household energy cost divided by the total annual household income across all fuel sources.
 - Group 1 - 0-10% - One (1) priority point
 - Group 2 - 11-15% - Two (2) priority points
 - Group 3 - 16-20% - Three (3) priority points
 - Group 4 - 21%+ and clients with no income - Four (4) priority points

Additionally, at-risk clients with valid medical documentation will receive the highest priority after meeting 1 of the 5 priorities listed above. Subgrantees may also schedule work with reduced regard to priorities where projects are able to coordinate work with other funding sources.

All subgrantees must maintain a waiting list of applicants that have contacted the agency to apply for assistance. It is a best practice to utilize a pre-application to screen applicants for eligibility. It is not acceptable to only maintain a waiting list of applicants that have completed the eligibility process and are ready to proceed to audit.

EmP

Contractors are expected to service clients on a first come first serve basis as client leads are assigned and cooperative. Non-responsive clients may lose their spot in line.

MEAP

Subgrantees are expected to service clients in order of assignment and approval by DHCD. DHCD will prioritize and assign “crisis no heat” clients based on:

1. Households with elderly and/or disabled individuals
2. Households with children under 5 years old
3. Households with high energy use, as defined by monthly electric use exceeding 1,500 KWh or monthly gas use exceeding 150 therms.

Cooling equipment repair/replacement is limited to vulnerable households during June 1 - September 30. Eligible households must have 1 of the following; an individual that is age 60 or older, disabled, a documented medical condition, or child under the age of 5.

4.2. USE OF OUTREACH MATERIALS

DHCD provides program materials that are approved for use in the network partner’s outreach efforts.

Such materials may include fact sheets, brochures, postcards, door hangers, and other items. DHCD also provides templates of client facing letters and notifications as included in the appendix of this POM.

Network partners may create additional client facing outreach materials as needed, but must present them to DHCD for approval before use. The network partner’s publications and advertisements must include statements and/or information that DHCD is the funding agency.

DOE Subgrantees must perform outreach activities and are strongly encouraged to generate their own outreach materials. When promoting the WAP, subgrantee publications and advertisements must include statements and/or information that DHCD is the funding agency. DOE has Spanish-language outreach materials available, and in some areas LWAs may need to make arrangements to conduct applicant services in languages other than English or Spanish. LWAs may order reasonable amounts of such materials for their outreach efforts.

EmP Materials created for the purpose of marketing must include language that the service is provided using EmPOWER Maryland funds. The EmPOWER logo must be included as well as the message “Energy-saving Solutions brought to you by EmPOWER Maryland.”

5. CLIENT INTAKE

5.1. CLIENT APPLICATION PROCESS

DHCD has partnered with the Maryland Department of Human Services (DHS), Office of Home Energy Programs (OHEP) which administers the Low-Income Home Energy Assistance Program (LIHEAP). Through this partnership, DHCD has access to the DHS OHEP database to download the list of households on a monthly basis that have been certified as income eligible for energy assistance services. Once the list is retrieved, DHCD designates the eligible applicants by territory and assigns cases to Network Partners as described in [this section](#).

In addition, DHCD and LWAs process direct applications in house. SWCs shall not process applications.

In certain situations, it may be possible to use third party certification of applicant income. Please see [the section on Multi-unit properties](#) for more information.

DOE Subgrantees must complete the following actions when conducting outreach/intake procedures:

- Conduct outreach to solicit applications from eligible households;
- Households apply, and if demand exceeds available funds, are placed on a waiting list;
- As assistance becomes available, review application and determine whether additional information is needed;

- Verify income and document eligibility;
- Certify eligibility by signing the application;
- Notify client of eligibility status.

Any cases that are assigned to LWAs by DHCD are provided only to supplement the subgrantee's responsibility to effectively conduct outreach and client intake to solicit applications from eligible households of potential weatherization projects.

EmP

Applicants for the EmPOWER LIEEP program must provide a copy of their utility bill or other documentation to demonstrate that they are residential clients of an EmPOWER participating utility. Applicants who do not apply through OHEP or DHCD, must also provide a signed utility release form.

MEAP

All applications must be approved by DHCD. LWAs are able to certify household eligibility, but must get approval from DHCD before committing funding to a project. The household must have a non-functioning or inefficient heating system that is in need of replacement or repair to be eligible for program funding from November 1 (October 1 for Garrett County)- March 31st. Program funding may be utilized for cooling system replacement/repair, water heater replacement, and weatherization activities from April 1 - September 30.

Re-Certification

All certified applications expire twelve months from the date of certification and must be recertified before starting weatherization service activities, if such activities were not started prior to the expiration date. Re-certification is not necessary if the project has progressed at least past the audit prior to the expiration date and the work is completed within the timeframe the respective program allows. The age of the application is determined by the date of original income certification as noted in Hancock.

The [Documentation of Income procedures](#) of the manual should be followed as well as the [Certification Procedures](#). However, for households whose total income is Social Security or Supplemental Security Income, S.S.I. , the Recertification of SSI form may be used.

5.1.1. CLIENT INTAKE BY OFFICE OF HOME ENERGY PROGRAMS

The Office of Home Energy Programs (“OHEP”) receives, evaluates and certifies applications for energy assistance. Income up to 175% of the federal poverty line (“FPL”) is eligible for assistance and automatically qualifies for DHCD’s income based programs. An applicant can select that they wish to be referred to DHCD to participate in energy efficiency programs. DHCD also receives any applications with income between 175% and 200% of FPL. These applicants are considered “OHEP leads” for the DHCD programs.

All OHEP leads have been determined income eligible by OHEP and require no further income

verification. DHCD screens these leads for previous weatherization and [re-weatherization eligibility](#) before they are [distributed](#) to Network Partners. DHCD sends eligibility letters to each screened client. These letters include the name of and contact information for the assigned Network Partner and the Permission to Enter form.

OHEP Application Information	
Website	http://dhr.maryland.gov/office-of-home-energy-programs/
Link to Apply	http://dhr.maryland.gov/office-of-home-energy-programs/how-do-you-apply/
Phone Number	1-800-332-6347

5.1.2. CLIENT INTAKE BY DHCD

DHCD processes applications from applicants who do not wish to sign up for any OHEP programs, and handles cases that require assignment to specific Network Partners, such as re-certifications or leads generated by SWCs.

The intake and income verification procedures comply with the current *Poverty Income Guidelines and Definition of Income* program notice to ensure that clients are income certified up to 200% FPL. DHCD screens these leads for previous weatherization and [re-weatherization eligibility](#) before they are [distributed](#) to Network Partners. DHCD sends eligibility letters to each screened client. These letters include the name of and contact information for the assigned Network Partner and the Permission to Enter form.

DHCD Application Information	
Website	http://dhcd.maryland.gov/Residents/Pages/lieep/default.aspx
Link to Apply	http://dhcd.maryland.gov/Residents/Pages/lieep/EmPOWER-PreApp.aspx
Phone Number	1-855-583-8976

5.1.3. CLIENT INTAKE BY LWA

LWAs are required to provide intake services to participants in their area provided those participants are

not already enrolled or are enrolling in OHEP energy assistance programs. LWAs must qualify each client in accordance with DOE Program Guidelines. LWAs must maintain records for each client served which may be inspected by DHCD and DOE at any time. Where the LWA shares an inter-office agency with an OHEP office, LWAs are not permitted to receive direct referrals from that office, unless given express approval from DHCD. All OHEP referrals are maintained and distributed centrally from DHCD.

Upon completion of the application and a review of the required documentation, the LWA makes an initial determination of eligibility or verifies if referral has been made through OHEP.

Individuals seeking weatherization assistance may make application either in person or by proxy to their Local Weatherization Agency. The agency providing intake services must ensure that all information is complete. Upon DHCD approval and verification that the applicant is not already on the OHEP list, client information is then entered into the Hancock system and assigned a job number.

An electronic client file is generated in Hancock and can be used for all required file documentation with the exception of income eligibility documents.

DOE

Services to Agency Employees and Board Members

Subgrantees should be aware that service to employees and relatives of employees may appear as a conflict of interest. As such, subgrantees must obtain prior approval from DHCD's Program Manager.

Subgrantees must have a written policy in their operations manuals outlining how they prioritize and select agency employees, relatives of agency employees, and income-eligible board members for service. Senior agency staff may not receive WAP assistance. Board members may not apply for assistance while they are serving on the board, but may receive assistance if they applied before becoming a board member.

At a minimum, the following policy and procedures must be followed when providing weatherization services to employees, relatives of employees, or board members. Failure to adhere to the following policy and procedures may result in a partial or total disallowance of all costs associated with the work conducted:

- A completed, signed, and dated application must be on file documenting the income eligibility of the applicant and the unit to be weatherized.
- Prior approval documentation. Written approval by the DHCD Program Manager must be on file. This approval must be obtained after the applicant is approved by the agency and before the audit is done.
- The applicant must be placed on the subgrantee's waiting list (after DHCD approval is given) and not be moved ahead of other applicants because of any special considerations other than those available to any other applicants in similar circumstances.
- The weatherization work scope must be prepared based on the DOE-approved energy audit.
- The investment in the building to be weatherized must conform to the energy audit

conducted and the subsequent work scope that was determined.

- The weatherization work performed, including any repairs and H/S work, must be consistent with the approved energy audit and work scope, in accordance with all DHCD standards.

MEAP LWAs are permitted to perform intake and certify clients. All clients must be approved by the MEAP Coordinator before committing funding.

5.2. ELIGIBILITY DETERMINATION

Eligibility for both the applicant and the applicant's dwelling unit (building) must be determined before program funds can be expended in any project. The eligibility guidelines under this section apply to all projects and are verified at multiple steps including at the time of application, lead management, and energy audit based on the information available. Network Partners are required to inform DHCD if they notice any indication that the client is not eligible.

DOE Notice of Eligibility

Applicants must receive written notification, on subgrantee official letterhead, of their eligibility status within thirty days of completed application submission to the WAP subgrantee. A copy of the applicant's Notice of Eligibility must be placed in the subgrantee's files. In multi-family buildings where a notification is posted, one copy should be in the building file.

Notice of Ineligibility

Applicants must receive written notification, on subgrantee official letterhead, of their eligibility status within thirty days of completed application submission to the WAP subgrantee. A Notice of Ineligibility must include the reason(s) for denial of WAP services. A copy of the applicant's Notice of Ineligibility must be placed in the subgrantee's files. In multi-family buildings where a notification is posted, one copy should be in the building file.

Appeals of Ineligibility

The appeals process for ineligibility determination is as follows:

1. Applicant will notify the subgrantee, in writing, of intent and reason for appeal.
2. Subgrantee will submit the applicant's file and appeal letter to the DHCD Program Manager.
3. The DHCD Program Manager will review the file and notify the applicant and subgrantee in writing of the eligibility determination decision.

5.2.1. INCOME

In determining what eligibility level will be used in its programs, DHCD has elected to consider low income in relation to family size, in accordance with DOE regulation CFR 440.3, which is at or below 200% of the Federal Poverty Level. Applicant income eligibility is determined per household and valid for the respective household only. A change of address does not affect the income eligibility, as long as the household composition and income remain the same at the new address. Federal Poverty Income Guidelines are generally adjusted once a year and the current levels can be found on [DHCD's website](#).

Income certification can be performed by OHEP, DHCD, or LWAs. SWCs are not authorized to certify income eligibility, they must refer applicants to OHEP, DHCD, or an LWA.

The income determination process results in either a certification of income eligibility or denial of assistance. Income eligibility will be based on all gross income received by the household during the 30 days preceding the date of application. Household members who are self-employed must document their income for a twelve month period preceding the date of application.

Income eligibility is determined based on the income status at the time of the application and is valid for 12 months from the certification date. A change in income during the 12 month period does not change the client's eligibility as determined at the time of application. If an application is deemed ineligible the applicant can re-apply in 30 days if their income changes.

Households that receive Supplemental Security Income or Aid to Families with Dependent Children are automatically income-eligible to receive weatherization services.

5.2.1.1. ALLOWABLE INCOME

Household income is defined as compensation received from one or more of the "allowable" sources (gross amounts, unless otherwise noted) listed below. Disallowed income sources are not taken into account:

Allowable Income	Excluded Income
<ul style="list-style-type: none"> ● Money, wages and salaries before any deductions; ● Net receipts from non-farm or farm self-employment (receipts from a person's own business or from an owned or rented farm after deductions for business or farm expenses); ● Regular payments from social security, railroad retirement, unemployment compensation, strike benefits from union funds, worker's compensation, veteran's payments, training stipends alimony and military family allotments; 	<ul style="list-style-type: none"> ● Capital gains, ● Any assets drawn down as withdrawals from a bank; ● Money received from the sale of a property, house, or car; ● One-time payments from a welfare agency to a family or person who is in temporary financial difficulty; ● Tax refunds; ● Gifts, loans, or lump-sum inheritances; ● College Scholarships; ● One-time insurance payments, or compensation for injury;

<ul style="list-style-type: none"> ● Private pensions, government employee pensions (including military retirement pay), and regular insurance or annuity payments; ● Dividends and/or interest; ● Net Rental income and net royalties; ● Periodic receipts from estates or trusts; and ● Net gambling and lottery winnings. 	<ul style="list-style-type: none"> ● Non-cash benefits, such as the employer-paid or union-paid portion of health insurance; ● Employee fringe benefits, food or housing received in lieu of wages; ● The value of food and fuel produced and consumed on farms; ● The imputed value of rent from owner-occupied non-farm or farm housing; ● Depreciation for farm or business assets; ● Federal non-cash benefit programs such as Medicare, Medicaid, Food Stamps, school lunches, housing assistance; ● Combat zone pay to the military; ● Child Support Payments;* ● Reverse mortgages; and ● Payments for care of Foster Children.
---	--

*A common income exclusion for DHCD is child support. This income is allowable however under DHS OHEP and can cause an OHEP applicant to be ineligible for energy assistance. Under DHCD’s policy, the OHEP applicant could still qualify for weatherization services. Clients where this income plays a role should apply with DHCD or an LWA directly.

5.2.1.2. INCOME DOCUMENTATION

Acceptable forms of documentation for the 30 day period immediately preceding the application includes the following:

Income Source	Acceptable Documentation
Wages or Salaries	Weekly pay period - four latest pay stubs; Bi-weekly or twice monthly - the two latest pay stubs; Monthly pay period - the latest pay stub; or A signed statement from the employer, on official company letterhead showing the employee's name, the day the income was received, and for what time period, gross pay and net pay.
TANF and General Public Assistance	A grant award letter dated within 30 days of the application or a copy of a recent check if there is no reduction in benefit. A grant award letter dated within 90 days may be accepted if the applicant has a current Medicaid card. A Declaration of Income may also be used, until such time as documentation of income can be produced; Verification of open case number of Master File for Departments of Social Services plus case worker's name and phone number; Medicaid Card (not Medicare) with Declaration of Income Form. Note the expiration date of the Medicaid Card to assure its validity.
Social Security or SSI	Latest award letter or copy of check received within 90 days of application or copy of most recent check;

	Medicare card (not Medicaid) with Declaration of Income Form; Verification from local SSI Office or online statements; or Current bank statement for direct deposits.
Veteran's Pension, Retirement, Worker' Compensation	A signed statement on official paper showing: Name of the person receiving the benefits; Name of the agency providing the benefits; Amount of money provided; How often money is provided; and Duration of benefits. A copy of the latest benefit check for the period covered; Computerized annual benefit card (civil service retirement).
Unemployment Insurance Compensation	A signed Request for Verification of Unemployment Benefits from the local employment office stating the amount of benefits received in the 30 days prior to application date. All benefits received during the 30 day period is to be considered as income; The benefit history record reported by the terminal inquiry system (for Departments of Social Services only);
Self-Employment	Business records for 3 months prior to date of application showing gross income and expenses; or Copy of business and personal tax returns for previous year; or Signed statement by corporation's accountant describing the compensation arrangement between the corporation and the applicant. Income Verification of Self-Employment form; Customers who do not file taxes must provide proof of all income and expenses for the last 30 days AND Income Verification of Self-Employment form.
Rental Income	A copy of the applicant's last Federal Form 1040 and Schedule E (divide rental income by 12); A copy of current, fully executed lease. A signed statement from the renter, roomer or boarder, showing: To whom the money is paid; Name and address of person giving the money; Amount of money given; How often the money is given.

NOTE: The forms of documentation outlined above are preferred for their clarity and reliability in verifying the period in question, i.e. 30 days preceding application date. It is recognized, however, that in some cases local agencies may find it necessary to seek forms of documentation other than those described. In such cases, the documentation presented must be in writing, dated within 30 days of the application, and record the gross amount of income received by the person named for the period in question. The documentation should be signed by the provider of this information.

Declaration of Income Form

Applicants and/or members of the applicant's household who receive income from Social Security, SSI or public assistance, or who possess a Medicaid Card, may complete the Declaration of Income Form if other forms of documentation are not available. The Declaration of Income Form is required for zero income individuals and in cases where information from Social Security or other public assistance agencies has been delayed for more than three weeks.

If the household members do not complete this form in the presence of a DHCD, OHEP, or LWA Intake Officer, the Declaration may be given to the applicant to be completed at home. In cases such as this, the form must be completed, witnessed/notarized, and signed before returning it to the office. If the form is completed in the office by an Intake Officer it need not be notarized.

Roomers and Boarders

“Separate Living Quarters” means living quarters in which the occupants do not live and eat with any other persons in the structure and which have either (1) direct access from the outside of the building or through a common hall or (2) complete kitchen facilities for the exclusive use of the occupants. The occupants may be a single-family, one person living alone, two or more families living together, or any other group of related or unrelated persons who share living arrangements. An applicant's spouse may not claim other roomer or boarder status. The Roomers or Boarders Separate Living Quarters Form must be completed for each roomer or boarder application.

Rent paid by the roomer/boarder to the host family must be considered in the total household income when processing an application for eligibility. However, the local agency should not count the roomer/boarder as a household member for purposes of application processing.

Residents of group homes and shelter facilities are not eligible to apply on their own behalf. An operator of a documented group home or shelter may apply for weatherization assistance on behalf of residents provided that the individuals or families residing in such group home or shelter meet the eligibility requirements. In such a case, the income of all residents of the group home or shelter must be considered.

5.2.2. BUILDING TYPE ELIGIBILITY

Building eligibility must be determined before any measures are installed. Eligible structures within the State of MD include manufactured homes, single family homes, duplexes, triplexes, apartment buildings, or a single room occupied as separate living quarters (including historic properties), and qualified shelters or other group homes. Prior approval from the DHCD program manager is required for group homes, shelters, apartment buildings, and single room occupancy situations.

Government institutions, halfway houses, nursing homes, recreational vehicles (RVs), cars, trucks, non-stationary campers and trailers, and tents are not eligible dwellings and are not eligible for weatherization services.

DOE	Properties having only a commercial use are not eligible for weatherization. Commercial use spaces of mixed use buildings are not eligible for weatherization. However, the owner of the commercial space could have weatherization work performed on the commercial space at the same time as residential weatherization activities provided the owner pays the contractor directly with non-federal funds.
------------	--

DHCD does not have an approved multi-family energy audit. Projects having buildings containing in excess of four units per building will be reviewed on a case by case basis and submitted to DHCD and DOE for approval.

EmP Apartment buildings may contain up to 4 units within one building envelope to be eligible for EmPOWER LIEEP weatherization. Refer to [multi-unit eligibility](#) for additional information.

5.2.3. HOMEOWNERSHIP

Verification of ownership must be obtained for all buildings, regardless of whether they are owner-occupied or rental properties. A dwelling unit shall not be audited or weatherized unless the applicant provides evidence that he/she is the owner or has the owner’s consent. In the case of a renter, the owner or his representative must sign a [building owner agreement](#) to the project and provide proof of ownership. Proof of ownership may be verified by utilizing any one of the following methods:

	If Applicant is the Homeowner	If Applicant is the Renter
a) Tax Bill	use only if the name and address of the client is the same as the application form.	use only if the name and address of the landlord is the same as the Landlord/Tenant Agreement.
b) Copy of Deed	can be used if the homeowner's name and address matches the name and address on the application.	can be used if the name and address matches the Landlord/Tenant Agreement.
c) Title Search	A printed copy of the Maryland Real Property data sheet for the property can be accessed by the homeowner, the landlord, or the Network Partner office online at: http://sdat.resiusa.org/RealProperty/Pages/default.aspx	
d) Property Location Plot	use only if the name and address of the client is the same as the application form.	use only if the name and address of the client is the same on the Landlord/Tenant Agreement.
e) Trailer / Mobile Home Title	A title from the Motor Vehicle Administration for the unit can be used as proof of ownership only if that title contains the name of the applicant. If the applicant's name is not on the title, a Bill of Sale can be presented as proof of ownership possessing the applicant's name and the original owner's name, the serial number for the unit, the year the unit was built, and the sale amount. In cases where more than one (1) Bill of Sale has been received, a clear ownership trail to the original owner must be identified. In addition, if a deed lists the property but not the trailer, the copy of the deed in this situation can be used as proof of ownership only if there is name consistency.	

Absentee Landlords - If an agent is acting on behalf of a landlord, the agent is required to present a notarized statement from the original landlord to act on behalf of, or as agent for, the property owner. This also applies to the Tax Bill and/or copy of the deed when an inconsistency in landlord's name and address exists.

MEAP Only owner-occupied dwelling units are eligible.

5.2.4. OCCUPANCY / VACANCY ELIGIBILITY

A vacant unit may be considered for weatherization services only when the building has been assisted by a federal, state, or local government program that restricts occupancy to households with incomes that qualify for weatherization and there is a reasonable expectation that the unit(s) will be occupied by such a household within 180 days following completion of the project. The landlord must sign the building owner agreement, and can sign off on any other forms typically required from an occupant.

DOE Vacant units must not be considered when determining eligible dwelling units in accordance with 10 CFR 440.22(b)(2).

EmP The landlord must be the utility account holder and provide access to utility data of any vacant units.

MEAP Vacant units are not eligible.

5.2.5. RE-WEATHERIZATION ELIGIBILITY

Re-weatherization rules are funding source specific and based on the dwelling. A dwelling cannot receive funding from the same funding source for a second time unless the re-weatherization rule allows for it.

DOE DOE regulations allow that units weatherized September 30, 1994 and earlier and under the conditions identified in CFR 440.18(f)(2) may be re-weatherized.

EmP A dwelling unit is ineligible from receiving weatherization services if it received weatherization (Tier 2 or Tier 3 job) within the previous five years. If the home only received a deferral or a Tier 1 job within the five years, it is eligible for weatherization through a Tier 3 job.

MEAP Clients are eligible to participate once per program year.

However, the lock-out period does not apply if a dwelling first participates in one program and then in a different program. DHCD does not exclude a participant from applying for a second weatherization project under a different funding source since the client may be eligible to receive additional measures based on the findings at the energy audit. If this is the case, DHCD's leads include an indication that work

was previously performed at the home and will make prior work scopes available upon request.

5.2.6. OTHER ELIGIBILITY REQUIREMENTS

EmP

The applicant must have an active residential utility account with one of the participating utilities. In the case of an eligible vacant unit, the property owner or management company must hold the active account at the time of weatherization service delivery.

MEAP

To receive heating furnace replacement/repair assistance during November 1 (October 1 in Garrett County) - March 31st, the household must have a non-functioning heating system that is in need of replacement or repair. If any of the following conditions are found to exist, the central heating system may be replaced:

- a) Steady State Efficiency (SSE) is less than 20% the rated capacity for a fossil fuel appliance;
- b) The forced-air heating system (fossil fuel) has a proven cracked heat exchanger, CO levels in the flue gas are above Weatherization Assistance Program (WAP) standards (as described in DHCD's program Field Guide), CO is evident in ambient air caused by the heating system, or the health and safety of the family is at risk;
- c) No operable central heating system exists; however, a distribution system is evident and can be used for the new heating system;
- d) Estimated repairs to the central heating system exceed 50% of the replacement costs.
- e) The life expectancy of the existing equipment is less than 3 years.
- f) The repair or replacement of a central cooling system is allowed at the time of the heating system replacement to ensure equipment compatibility.

If funding is available, central cooling system and window unit repair and replacement are authorized from June 1st to September 30th. New equipment cannot be installed where there is no existing equipment. Existing inoperable or not functioning window units can be replaced without consideration for repair.

Cooling system replacement is allowed under the following circumstances:

- a) Homeowners receiving cooling system repairs/replacements have occupancy of at least one vulnerable individual age 60 or older, disabled, a documented medical condition, or child under the age of five;
- b) Existing equipment must be inoperable or not functioning; or
- c) Estimated repairs to the central cooling system exceed 50% of the replacement cost and the life expectancy of the existing equipment is less than 3 years.

5.2.7. GROUP HOMES AND SHELTERS

Group homes are eligible for weatherization, however residents of group homes and domiciliary care facilities are not eligible to apply on their own behalf. The income of all residents of the facility is considered when evaluating this type of home. For the purpose of the Weatherization Programs, the definition of a group home or shelter is as follows:

A shelter is 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, government-owned, or similar institutional care facilities.

A group home is a dwelling unit in which three or more people, not related by blood or marriage, reside and share eating facilities. In addition, a group home must have a clearly definable identity which distinguishes it from more informal, family-type settings, for example, a residence for disabled individuals.

If a part of a building is being or will be used as a group home or shelter, then only that part of the dwelling housing the group home or shelter residents can be weatherized. If the entire building is used as a group home or shelter and individual units cannot be easily identified, determine the number of units and the allowable budget to be expended on the building in one of the following two ways:

- Each 800 square feet of living space shall be counted as 1 unit (i.e., if there are 4000 square feet in an entire building, the shelter would be considered a 5 unit), OR
- Each level or floor of the building being used as a shelter shall be counted as one (i.e., if there are two floors of living space, the number of units is two).

Other regulations and procedures for Group Homes are:

- The Network Partner shall request from the operator documentation that proves the dwelling unit is a group home or shelter. Documentation may include a notarized letter denoting group home or shelter authorization.
- The Network Partner must take applications from each family unit residing in the group home or shelter and secure income documentation from each family unit. When taking applications for a group home or shelter, proof of ownership need only be secured for the operator. Evidence of ownership must be maintained in the client file.
- An unoccupied group home or shelter is not eligible for weatherization until it is occupied.

EmP

The utility account for group homes or residential hotels must be a residential account. A group home must provide utility information. Roomers and boarders may not apply for weatherization assistance separate from the host household unless they live in a separate living quarters with separate meters. An electric utility bill (and gas bill, if applicable) must be provided by the individual or host manager.

5.2.8. MULTI-UNIT ELIGIBILITY

Multi-unit affordable housing projects must be comprised of single-family detached homes, duplexes, townhomes, and / or walk-up buildings with 4 or less units to be eligible. Weatherization services are generally required to occur as a whole building system; meaning, the whole building, is to receive weatherization services whether a multi-unit building or single family home. There are very few cases where it is appropriate for individual units within a multi-unit building to receive services. Such instances must be submitted to DHCD for review.

DOE In accordance with 10 CFR 440.22, subgrantees must maintain documentation to show that not less than 66% of the eligible dwelling units in a multi-unit building are occupied units. For two, three and four unit buildings, a minimum of 50% of the units must be documented as occupied. This determination must be completed before the Owner Agreement is executed. If the above conditions are met, the entire building, including common areas, may be weatherized.

EmP The dwelling units are individually metered for the electric utility and each has a unique street address. Common spaces are not eligible for weatherization. Common areas or shared systems disqualify a multi-unit project in this context and should be referred to the DHCD multifamily programs. The property owner must be willing to fund or seek alternate assistance with funding 50% of HVAC, appliance, and/or other high cost equipment with non-EmPOWER funds when these items are eligible for replacement. The project may proceed without equipment replacements. However, when weatherization can only proceed with the replacement of HVAC or other equipment or appliances and ancillary funding is not available, the case will be treated as Tier 1 project.

MEAP Tenants are not eligible for services.

5.2.8.1. MULTI- UNIT PRE-APPROVAL PROCESS

The pre-approval process follows these steps:

1. Network Partner identifies a potential project that meets the requirements above. DHCD may occasionally identify potential projects and will assign them to a network partner based on jurisdiction and/or lead distribution guidelines.
2. Network Partner submits property information to DHCD via Multi-Unit Intake Template and submit the following documentation for each property lead:
 - a. One (1) permission to enter form signed by the building owner or authorized agent.
 - b. The rent roll is optional but not required at this point.
3. DHCD assigns an inspector to review the preliminary property information and eligibility.
 - a. If the property is not eligible in its entirety, the Network Partner will notify the property owner or representative via a denial letter and email a copy of it to the DHCD program manager.
4. Network Partner coordinates with DHCD Inspector and Property Management to perform a preliminary site visit. Partner assesses the likelihood of HVAC, appliance, or other equipment replacement, and determines if opportunity for weatherization and other upgrades exist.
5. DHCD reviews the partner's project assessment.
6. The Program Manager gives pre-approval for the project to proceed based on the DHCD Inspector's recommendation.
7. Network Partner presents Building Owner Agreement to Property Management and receives a signed copy. The signed agreement is uploaded into Hancock under WAP Documents - Landlord Consent for Weatherization.

EmP

If HVAC, appliance, or other major equipment replacement is deemed eligible, the Network Partner will work with the property owner to execute a Memorandum of Agreement as part of the Building Owner Agreement to capture a 50% landlord contribution toward the cost of replacing HVAC, appliances, or any other high cost equipment.

After receiving pre-approval, the Network Partner must provide the following documents to DHCD:

- Property rent roll and roster. The rent roll and roster must list physical addresses and tenant names.
- Documentation of income restrictions or regulatory agreements or any other documents required for [income verification](#).

DHCD verifies income eligibility and notifies Network Partner when certain units or the entire property is verified as income eligible. This notification establishes a notice to proceed to perform work on the specified units.

5.2.8.2. MULTI-UNIT INCOME VERIFICATION

Income eligibility for multi-unit projects is determined through the individual client application process

described in [this section](#) or the program specific processes described below.

DOE Multifamily Income Verification

For Multifamily units, income eligibility is determined as described above.

HUD qualifies multi-family buildings on a case-by-case basis upon request. Requests should be made to DHCD and DHCD will submit the request to DOE for review. Subgrantees will comply with WAP Memorandum 016: Multifamily Housing - HUD Lists.

EmP

If a property contains Section-8, USDA, or LIHTC qualified units, then the following information is to be provided to DHCD:

- Rent roll stating each tenant's name, household size, annual income, last income verification date.
- If the property wishes not to disclose income information, the rent roll must list the tenants names and addresses that hold a current income certification (re-certified within the past year) and meet the Department's income limits. Property management must sign and certify on the provided rent roll that the listed tenants meet the 200% poverty line income limits and have been certified following either Section-8, USDA, or LIHTC regulations within the past year.

For projects with mixed income levels, the following rules apply:

Individual Units

An individual unit is defined by possessing a unique street address, its own residential electric meter, and a building envelope that fully separates its conditioned space from neighboring units. These units may be weatherized regardless of the eligibility of other units within the building. Townhouses qualify as single units, if their attic and basement is separated from neighboring units.

Duplexes and Four-Unit Buildings (50% Rule)

All units within a duplex or four-unit building are eligible for weatherization if fifty percent of the units in a duplex (50% = 1 unit) or four-unit building (50% = 2 units) are occupied by income eligible residents.

Triplexes (66% Rule)

All units of a triplex are eligible for weatherization services if sixty-six percent of the units (2 of 3) are occupied by income eligible residents. All units must be contained within one structure and must share a common foundation for the entire building to be deemed eligible to receive services.

5.3. CLIENT DENIAL AND HEARING PROCESS

Applicants are denied weatherization assistance if they do not meet the eligibility criteria. The most common reasons for denial of assistance are:

- Total household income exceeds the income guidelines of the program;
- The applicant did not provide sufficient documentation of the household income or other information within the prescribed time;
- The dwelling unit has received comprehensive weatherization assistance previously;
- The dwelling unit is not eligible for funding under available funding source guidelines; or
- Other reasons specific to the case or program (Network Partner must specify).

If obvious discrepancies are found between the information supplied by the applicant on the application and observed conditions at the time of weatherization, the network partner must resolve these questions prior to weatherization. Some examples of discrepancies are a difference in the number of persons living in the dwelling unit, (fewer persons than listed or a person or persons not accounted for who may have income), evidence of business being conducted in the unit, etc. When a network partner has first-hand knowledge or reason to believe that circumstances may have changed, the network partner may request an updated application.

In addition, if at any time prior to completion of the weatherization work the network partner determines that the building is no longer eligible, the unit cannot be completed and must be denied.

DOE Clients that have applied for assistance but cannot be serviced due to lack of funding are not denied but should be placed on an agency waiting list and notified accordingly.

The applicant and/or owner of a denied unit must be notified via the [denial process described below](#). A copy of the denial letter must be made available to the Program Monitor during their next visit.

EmP A [denial that occurs at the time of the audit](#) or after the audit, must be approved by a state inspector. Denials determined during the [scheduling process](#) do not require approval.

It is not necessary to send denial letters to households that have applied for assistance but cannot be assisted due to insufficient funding. However, the lack of funding and delays in service must be communicated clearly to the client.

MEAP A denial that occurs at the time of the audit or after the audit, must be approved by a state inspector. DHCD maintains a wait list of clients that are unable to be served when funding is limited.

5.3.1. DENIAL PROCESS

If the Network Partner determines that an applicant or a dwelling unit is ineligible, the applicant shall be notified within 10 business days of that decision. Notification shall include the following:

- Reason for denial;
- Specific guidance supporting the denial;
- Right to appeal the decision and the means to obtain a fair hearing.

A denial letter must be sent to the applicant within seven (7) calendar days of the date of denial. The denial letter is completed by the intake worker. The letter template is provided by DHCD, must be filled out completely, and uploaded to the Hancock documents folder. The Hancock record must be marked as denied and a comment of the denial reason must be left in the client comments.

If the denied applicant wishes to appeal the Network Partner's decision, the procedures described in the [Review and Hearing Process](#) must be followed.

5.3.2. REVIEW AND HEARING PROCESS

In cases where a client would like to dispute ineligible status, or is concerned about the quality of work they have received, the Network Partner must try to settle the issue courteously and expediently. If the client cannot reach an understanding with the Network Partner, the client should be referred to HBEP, and a detailed back-up summary of the issue should be forwarded by the Network Partner. A review of the disputed items will follow.

All Network Partners are required to keep a log of complaints and resolutions. The complaint log must indicate:

- Date received
- Name of applicant or complainant
- Nature of complaint
- Date and description of actions taken to resolve the complaint
- The name of the person by whom the action was taken

Clients are guaranteed access to a fair hearing process if the Network Partner is unable to resolve a complaint.

The hearing process is multi-leveled. The first level of appeal is a local hearing before a hearing officer designated by the Network Partner. The second level of appeal is conducted by DHCD after the applicant's complaint has not been resolved through the local hearing process.

All hearings must conform to the following standards:

- The location must be convenient and accessible to the client;
- Adequate notice must be given to the client. The client must be given at least 15 working days from the date the Request for Review of Decision is sent by the Network Partner to request for

such hearing;

- Specified time frames must be met;
- The hearing officer must be a person not involved in the original disputed decision; and
- The client may bring legal counsel, a representative, or other interpreter, and may present evidence and examine witnesses.

Hearings are to be rescheduled for applicants requesting postponements. Two postponements with prior notice are acceptable. If an applicant fails to appear for a scheduled hearing and does not provide notice, the hearing officer may render a decision based on the case file or reschedule the hearing based on adequate cause.

5.3.2.1. PROCEDURES FOR LOCAL HEARINGS

Client, requesting a review of a Network Partner decision or action, must request the local hearing within fifteen (15) working days of the date of notification of the decision.

Applicants requesting a hearing, due to the LWA's failure to make eligibility determination on their application, may do so any time after 10 days have elapsed from the date that all required documents have been provided to the Network Partner.

Upon receipt of the hearing request form, the Network Partner enters the request on the Network Partner hearing log.

The local hearing must be held within fifteen (15) calendar days of receipt of the hearing request. Notice that Local Hearing Has Been Scheduled should be used to notify the applicant at least ten (10) calendar days in advance of the scheduled hearing.

The Network Partner hearing officer should attempt to resolve the client's concerns at the local hearing through review of the applicant's case file and explanation of the appropriate program regulations.

Following the hearing, the Network Partner hearing officer's decision must be issued in writing to the client along with request for a State level hearing (Appeals Hearing Decision Letter Form). The decision must be sent within fifteen (15) calendar days of the hearing.

5.3.2.2. PROCEDURES FOR STATE HEARINGS

Client who wish to appeal the decision rendered at the local hearing must submit a Request for State Level Hearing form within fifteen (15) calendar days of the date of the Network Partner hearing decision letter.

Upon receipt of the request for a State Hearing, the Network Partner completes the hearings log and forwards copies of all case documents to the State energy programs office.=

The State Hearing must be held within fifteen (15) calendar days of receipt of the case file from the Network Partner. The State energy programs office will provide written notification to both the client and the Network Partner of the scheduled time and place of the hearing, at least ten (10) days in advance of the hearing (Notice that State Level Hearing Has Been Scheduled).

A written decision will be rendered by the State Hearing Officer within the 15 days following the

scheduled hearing. Copies will be sent to the client and Network Partner.

6. LEAD MANAGEMENT AND SCHEDULING

A lead is an income certified applicant that is assigned to a Network Partner by DHCD. Leads are pre-screened for re-weatherization eligibility and [other qualifying factors](#) based on application information, however the Network Partner must continue to verify eligibility at multiple steps of the weatherization process. DHCD will not reimburse Network partners for work that is performed on ineligible projects.

6.1. LEAD DISTRIBUTION PROCESS

Income certified and pre-screened OHEP and DHCD applicants are considered “leads” and are assigned to Network Partners, typically on a monthly basis. Leads are assigned through the Hancock database with consideration for the Network Partner’s contract rank, availability of funds, capacity, performance, and proximity to the client’s home. New leads may not be assigned, if:

- the contract/grant budget is depleted or
- the number of leads and clients currently assigned is expected to deplete the budget. Network Partners are expected to notify DHCD when they have sufficient leads to expend their budget.
- Hancock shows a large number of open leads from prior month assignments. Network Partners must contact all leads within 30 days and log such contact attempts [as described here](#).
- DHCD is concerned with the quality and quantity of services provided. Such concerns will be communicated to the Network Partner and lead assignment may resume after a solution is determined.

DHCD uploads the applicant information to the Call Center List, assigns clients, and notifies the Network Partner that new leads were assigned. New leads appear in the Call Center List with the status “Waiting for call back”.

“Approved Duplicates” are leads who have received prior weatherization services, but are deemed eligible for re-weatherization or other program services based on the information available. “Approved Duplicates” are assigned via a spreadsheet that is sent to the Network Partner. The entry for each duplicate indicates which program(s) the client is eligible for. Network Partners are encouraged to inquire with DHCD about previously performed work to aid in determining final eligibility. Network Partners are responsible for creating Hancock records for each approved duplicate. The entry of a duplicate must be approved by DHCD’s intake staff before proceeding with work. Email dhdh.lieep@maryland.gov with the client’s address to request approval.

The following applicant information is provided for each lead:

- Household Demographic Information
- County of Residence
- OHEP Certification Date
- Living Arrangement, i.e. renter/home owner
- Poverty Level Percentage

- Applicant's Name
- Applicant's Address
- Applicant's Telephone Number(s)
- Applicant's Email Address, if available
- Utility Vendor and Account #
- Housing Type (i.e., single-family home, apartment, etc.)
- Household Size
- Household Income
- Seniors (over 60) in Residence
- Disabled Persons
- Children in Residence
- Annual Household Energy Consumption

MEAP

Network partners are notified of new no heat leads via email. The email includes the approved client application. It is the responsibility of the partner to create a Hancock client record based on the information listed within the client application. If a client record exists, and a weatherization audit has not been performed, follow these steps:

- Go to Client Job List
- Select the "Add Job" button. This will create a new client record. Change the job number
- Audit information screen
 - Job Type: For the initial No Heat select "Crisis"
 - Audit Type: Every No Heat case must be energy modeled. The software will not block the job if the overall SIR is below 1.1. Select Full House Audit
 - Funding Source: Only use MEAP

If MEAP funding will be leveraged on an active weatherization project, the MEAP measure must be added to the weatherization scope of work. Only one job should be created within the client record.

Partners are only allowed to use MEAP funding on clients that have been assigned (or approved) by DHCD.

6.2. SCHEDULING PROCESS

It is the responsibility of the Network Partner to contact leads to schedule an energy audit. Clients can be contacted by phone or email. If unable to reach the client, the Network Partner is required to send a notification letter with contact information and instructions regarding next steps to schedule an energy audit. Network Partners are expected to take reasonable attempts to contact an applicant. Network Partners shall attempt contact at least three distinct times and days to accommodate an applicant's availability. A visit to the applicant's home is strongly encouraged when other means of contact have failed. All contact attempts must be documented in Hancock. After at least three contact attempts are made and documented and the client is still unresponsive, [denial procedures](#) should be performed to close out the lead. An excessive number of open leads may cause reduced or non-assignment of future leads.

DHCD provides the client with forms that are required in order for work to begin, during the intake process, but may need to be re-sent by the Network Partner. It is advised that these forms are collected before the audit commences.

Network Partners are expected to monitor the leads in their Client list regularly, continue to contact leads as described above, and log each outreach activity in Hancock within one week of such activity occurring.

DOE The first consideration for scheduling must be by priority category as defined in 10 CFR 440.16 and identified under [target population](#).

The scheduling process above particularly applies to leads provided by DHCD but should be used as a best practice for scheduling of all clients. The timing of service to an applicant that is in a priority category may be set so services can be coordinated with another funding source.

If there is a waiting list, additional DHCD leads will not be provided. Subgrantees must contact DHCD if additional leads are needed in the future. Remember that all applicants are required to re-verify for the program annually and thus all applications are no older than one year.

EmP Clients must be contacted within 30 days of receiving the lead information.

At the time an audit is scheduled in Hancock, DHCD is prompted to enter energy consumption data for the client's file.

- An automated email notifies DHCD when an audit is scheduled and prompts a lookup of the client's account in the utility database.
- The utility verification is typically completed within 48 hours.
- Energy consumption data is entered in the Hancock record and a note is left in the comment section that the energy data is verified.

Network Partners shall not proceed with the audit or any other work until the energy data is verified. DHCD must be notified if the energy consumption information is missing from the client's Hancock record at the time of the audit. Contact DHCD at dhcd.energyuse@maryland.gov.

MEAP If a household is in a life threatening situation, as defined by COMAR 07.03.21.10, partners must conduct a system assessment and establish a plan to provide a form of assistance within 48 hours of being assigned a lead. If the household is not in a life threatening situation partners are expected to conduct a system assessment and establish a plan of assistance within 5 business days of being assigned a lead. The correct assessment date must be entered in the Audit Information section of the client record.

Subgrantees must contact DHCD if additional leads are needed. Considering the emergency nature of the program, if a partner has available funding there is an expectation that the

partner has an active pipeline of jobs in process.

Difficulties experienced in reaching the client must be noted in the Client Comments section of the Hancock record. The MEAP Program Coordinator must also be notified via email.

At the end of each week, a weekly Crisis Production Report of program activity, including:

- List of all referrals received for the week
- Date and time that referrals were received
- Date and time contractor performed initial assessment
- Date and time of resolution

6.3. CRITICAL MEDICAL NEEDS

DOE DOE does not recognize critical medical needs as a priority however “at-risk” clients as defined under the [Health and Safety Plan](#) will receive the highest priority.

At-risk clients must meet at least one of the priorities identified under [target population](#).

EmP Applicants with critical medical needs may be eligible for “fast tracking” to an energy audit and project completion. The critical medical needs process enables applicants with documented medical conditions to receive help on an accelerated basis.

Applicants with critical medical needs are referred to DHCD by navigators working in the medical and social assistance field who assist in the client’s application process for energy assistance. OHEP then processes the applicant’s income certification within 10 days. Thereafter, the certified application, together with a checklist of the client’s energy program needs, and a copy of the physician’s certification of the medical condition is to be forwarded by the navigators, or OHEP, CSF or OPC to DHCD’s intake team.

The lead must be contacted within the same business day. At a minimum the auditor must assess the measures marked as critical for this client (“crisis measures”), which may include a refrigerator, HVAC system, or hot water heater. Systems that are gas-fueled require regular combustion testing procedures. The implementation of such crisis repairs or replacements follow each utility’s fuel requirements (Gas and electric systems for BGE only, electric systems for Delmarva, PE, Pepco, and SMECO). All other EmPOWER requirements remain in effect.

The auditor does not have to perform a full audit at the initial crisis visit, however it is recommended to do so to ensure that the entire job will meet all EmPOWER job requirements, including SIR requirements. Projects that do not meet program requirements will not be reimbursed.

The network partner must resolve the crisis within 36 hours of assignment. Resolution may

include temporary relief such as the use of space heaters, electric water kettles, or mini-fridges for up to 2 weeks until the new equipment can be installed. All technical and cost-effectiveness requirements for replacements remain as specified in the current POM. The network partner may use other qualifying funding sources to repair or replace a measure that does not qualify for EmPOWER benefits under this process. The agency must notify DHCD (dhcd.lieep@maryland.gov) and the client immediately when the crisis is resolved or determined it cannot be resolved with available resources.

If an audit was not performed at the time of the crisis intervention, the auditor should return to complete the energy audit and the agency can install additional non-crisis measures as specified in the current POM. The weatherization job must be completed within 30 days of assignment. The network partner must notify DHCD (dhcd.lieep@maryland.gov) and the client immediately when the job is completed.

MEAP Use standard MEAP processes.

6.4. ELIGIBILITY VERIFICATION

Network Partners are required to conduct additional checks for eligibility at the time of scheduling and auditing. The scheduler shall interview the client before the audit to confirm that [the eligibility requirements](#) of building type, homeownership, occupancy, re-weatherization rules, and other eligibility requirements are satisfied to their best ability. If there is any doubt, contact DHCD for clarification.

Work performed on non-eligible projects will not be reimbursed.

6.5. REQUIRED JOB FORMS

It is the network partner's responsibility to collect a number of forms throughout the weatherization project. All required forms are provided in digital versions to the Network Partner.

6.5.1. PERMISSION TO ENTER FORM

The Network Partner and the building owner must both sign the Permission to Enter Premises Form for each dwelling unit prior to work being started. This form not only provides protection for the Network Partner, but it also explains pertinent weatherization assistance policies to the owner. In no case should Network Partner staff enter the building to conduct the energy audit, perform work or collect documentation before this form is signed.

The owner of the property must agree to allow local, state, and federal staff to enter the premises after

weatherization services have been provided for the purpose of conducting a quality control and other necessary program inspections. This allowance for quality control inspections must be part of the Permission to Enter Premises form and the Building Owner Agreement form. A refusal to allow access for post service inspection is cause for denying services to the property and may result in the owner reimbursing the agency for all costs associated with delivery of the services.

6.5.2. BUILDING OWNER AGREEMENT

When a rental property is weatherized, a Building Owner Agreement form between the Network Partner and the owner must be signed before installation of measures can begin. The Owner Agreements are not signed until the eligibility documentation is received for each eligible client, the energy audit estimation has been performed by the Network Partner and the owner's investment (if applicable) and scope of work have been negotiated.

The Building Owner Agreement with the Network Partner includes all necessary information to allow the weatherization improvements to proceed in an expeditious and cost effective manner in accordance with federal regulations and guidelines, as well as State and local contract law. The Building Owner Agreement includes:

- The approval signatures of the building owner(s) or legal representative(s)
- A description of the owner's obligations including any financial contributions, if applicable
- A description of the Network Partner's obligations including the scope of work
- Rental clauses that allow rent increases only for specific causes or set limits on the increases such as the pro-rated share of increased property taxes, increased operating expenses, or the pro-rated and amortized cost of property improvement outside the scope of weatherization;
- Protection against the sale of property clause
- A definition of a breach in the agreement and the remedies to be taken if such a breach occurs, including liquidated damages.

The list of services to be provided (BOA: Agency's Scope of Work), the list of units and rents (BOA: Eligible Dwelling Units & Rent); and if applicable, the owner's list of work to be performed (BOA: Owner's Scope of Work/Owner's Investment), are to be developed during negotiations, initialed by the owner and the Network Partner representative and attached to the Agreement. The owner and the Network Partner sign the agreement and the Exhibits.

In addition to DHCD's Building Owner Agreement, contractors may enter into contracts with property owners for work to be completed, as required by Maryland law. Contractors are not instrumentalities of the State of Maryland. Contractors enter into agreements with property owners for services to be provided from the contractor to the property owner. The Department pays for those services, but is not a party to that agreement.

MEAP Funding is not permitted to be used on rental units, therefore this form is not to be utilized for MEAP projects.

6.5.3. TENANT SYNOPSIS OF THE BUILDING OWNER AGREEMENT

All tenants in a rental building must be given a copy of the Tenant's Synopsis of the provisions contained in the Building Owner Agreement. This is a plain-language explanation of the Agreement and notifies the tenants of their rights which generally focuses on the following elements:

- Rental clauses that allow rent increases only for specific causes or set limits on the increases.
- Protection against sale of property and/or eviction.
- Description of the process the tenant should follow if they believe the landlord has violated the agreement.

The Tenant's Synopsis Form must be completed in its entirety before its distribution to tenants. Signatures are not required.

Network Partners must provide one copy of the Building Owner Agreement to any tenant that requests it.

MEAP Funding is not permitted to be used on rental units, therefore this form is not to be utilized for MEAP projects.

6.5.4. DEFERRAL FORM

The deferral form is needed, when a home is deferred or classified as an EmPOWER Tier 1 job regardless of the reason for the deferral. Network Partners must clearly state what the reason for deferral is and what the client can do to become eligible for whole house weatherization, if applicable. In conjunction with the deferral form the Network Partner must also provide clear instructions on how the client can re-apply for services after any issues may have been repaired.

6.5.5. TIER 1 JOB COMPLETION FORM

EmP At the completion of a Tier 1 job, the Tier 1 Job Completion Form must be filled out in its entirety. A complete scope of measure installed, including energy measures, H&S and incidental repairs must be listed on the form and the scope must be explained and demonstrated to the client. The client and a qualified Network Partner representative must sign the form certifying that the scope stated on the form reflects the work performed in the home.

7. ENERGY AUDITS

An energy audit must be performed on each dwelling unit that is intended to receive weatherization services. Auditors are required to use the Hancock field application to record all data for input HEAT, in order to comprehensively record findings and effectively compile an effective list of measures.

Energy auditors shall accurately and completely identify and input existing conditions and develop energy models and that consider all feasible energy saving opportunities. The energy model will assist the energy auditor with developing a comprehensive scope of work that is program compliant.

The energy auditor determines the pre-weatherization conditions of the home and identifies what weatherization measures are appropriate. Energy Audits must follow the the DHCD Maryland Field Guide.

Required client documentation (including utility bill copies or signed homeowner forms) should be collected prior to the commencement of the energy audit.

MEAP In life threatening situations, a heating system inspection is to be conducted within 48 hours of client assignment, to determine what is needed to resolve the heating crisis. Audits should be performed within 5 days of assignment if no life threatening situations exist. If it is determined during the visit that the dwelling is an appropriate candidate for weatherization, a whole-home audit should be performed as well. The goal is for each crisis case to become a weatherization case. Any case in which an existing health and safety issues may prohibit the installation of new equipment must be discussed with DHCD's Senior Program Manager or Client Production Manager before [being deferred](#). Depending on the associated costs, health and safety issues may be addressed using MEAP funding.

7.1. GENERAL ENERGY AUDIT REQUIREMENTS

An Energy Audit must meet the following requirements:

- Data collected in the field must be accurate and reliable
- Include client education to the homeowner/client, which considers energy costs and applicable energy conservation strategies.
- Be based on current building-science principles and include the use of appropriate equipment in diagnosing opportunities for improving energy efficiency, and minimizing health and safety hazards.
- Utilize HEAT to produce a cost effective work scope of specific energy efficiency and health/safety measures warranted by the site-specific circumstances.
- Enter comments related to existing conditions and proposed work scope in the Detailed Measures comment boxes.

There may be cases where a home has significant issues, including but not limited to structural damage, extensive mold, or animal infestations, that make the home ineligible for weatherization. In cases such as these, the energy auditor must record the issues in detail on the required forms, document the concerns in writing and with photographs, and contact a DHCD QAI to assist in determining whether or not to perform the energy audit.

The energy audit shall:

- Not exclude any portion of the building i.e. attics, basements, crawl spaces, attached enclosed porches, etc.
- Not endanger the occupants or the auditor.
- Include an interview of the occupant(s) about their awareness of energy-related home Hazards and other factors, including pets, occupants, etc.
- Include a test of all combustion appliances in accordance with the MD Field Guide.
- Evaluate ventilation requirements.
- Identify signs of moisture problems.

The energy auditor shall:

- Identify existing hazards and hazards that may develop when the measures are installed and specify preventative measures.
- Inform clients about identified and potential fire, structural, health, and safety hazards related to energy systems and retrofit work.
- Specify in the recommendations that workers do not disturb known or suspected lead, asbestos, or mold, unless the workers are qualified and use appropriate containment, cleaning, and/or abatement procedures.
- Specify in the work scope that identified electrical hazards, which may hinder planned ECMs, are mitigated.
- Specify appropriate safe work practices in the work scope.

The energy audit shall result in a work scope detailing proposed ECMs as described in [this section](#). This work scope shall be based on an evaluation of the whole house according to the requirements of this standard. The objective of the work scope is to optimize home performance cost effectively, while maintaining or improving health and safety.

An energy audit expires if work is not started within one year of the audit and must be repeated.

Approved auditing tools are as follows:

Single Family: HEAT energy modeling tool is approved for multi-unit developments of buildings with 4 and fewer units not centrally heated/cooled and single family dwelling units.

Manufactured Housing: HEAT energy modeling tool is approved for manufactured homes.

Multi-Family: DHCD is not approved for auditing multifamily buildings in excess of 4 units or where units are centrally heated/cooled.

DOE

DHCD will submit multifamily projects for DOE audit approval on a case by case basis. Subgrantees must submit the following documentation to the DHCD Program Manager to forward to DOE for review:

- Summary/Description of the project (property type, # of units, # of buildings, etc.)
- Several pictures of the project (interior and exterior)
- Blueprint
- Suggested Scope of Work

DHCD approval must be obtained before subgrantee can proceed with any work.

7.1.1. INTRODUCTION AND VISUAL INSPECTION

The energy auditor must confirm that all [required documentation](#) is signed and collected.

The energy auditor shall provide the client a short overview of what to expect from the audit.

Before performing any diagnostic testing, the energy auditor must perform a visual inspection of all parts of the home to determine if

- There are any health and safety concerns present that prevent the performance of diagnostic testing.
- There are any conditions present that warrant a deferral or denial of the home.
- There are indications that the home had previously received weatherization services. If weatherization measures have been installed prior to the visit, DHCD should be notified. DHCD will make a determination if the dwelling is eligible for additional weatherization services based on the [re-weatherization guidelines](#).
- All eligibility requirements are satisfied based on building type, occupancy, homeownership, etc.

After it has been determined that the audit can proceed, the energy auditor must accurately and completely enter the building data into HEAT. The audit assesses overall building energy use and must include all existing systems and appliances using energy. The energy auditor shall collect data for consideration of all feasible energy saving opportunities for baseload equipment, water fixtures, and other items that consume or conserve energy in the home.

7.1.2. DIAGNOSTIC TESTING

Diagnostic testing must be performed following the MD Field Guide. Conditions preventing combustion testing or blower door testing are outlined in the MD Field Guide. In cases where diagnostic testing cannot be performed, the reason must be noted in Hancock.

All findings must be documented with photos and description in Hancock.

EmP

When blower door diagnostics can not be performed because of health and safety reason and

the unit is modeled for efficiency improvements, Hancock requires the entry of a pre-test value and a target value on the Air Infiltration screen. In such cases, take the following steps:

- For the pre-test CFM50, enter an estimated valued of 2x the square footage of the home.
- For the target CFM50 enter a value 1 less than the pre-test value.
- Leave a comment in Hancock that the blower door was not run, what conditions prevented the blower door from being run, and that the entered values are estimates.

7.1.3. DIRECT INSTALLS

Direct install measures are measures that typically meet or exceed SIR requirements such as light bulbs, faucet aerators, smart strips, etc. and may be installed at the time of the energy audit.

DOE Low-cost/No-cost weatherization activities may be carried out provided that only those measures that have been approved by DOE through CFR 440, Appendix A or waiver are installed.

EmP All measures must meet SIR requirements. Direct install measures not meeting SIR requirements will not be reimbursed.

7.1.4. CLIENT EDUCATION

The energy audit must conclude with client education. The client shall be provided with the following information:

- Verbal description of what was found in the home and what the next steps in the program may be.
- Verbal description of any health and safety concerns, including recommendations to maintain or improve existing levels of health and safety and mitigate identified hazards.
- Written description of any health and safety concerns that cannot be repaired under program guidance, but should be addressed by the client. In the case of a deferral or Tier 1 job, this information is provided on the deferral form. The deferral form must be filled out completely and provided in a copy to the client.
- Copies of any educational materials provided by DHCD. DHCD will make available copies of the required materials upon request.
- Tips on how to save energy through behavioral changes, based on opportunities found in the home, observed behavior, and energy use analysis.

- DOE** The educational materials at the time of the audit include the following:
- [DOE Energy Savings Guide](#) needs to be reviewed and left with the client
 - Radon form

- EmP** The educational materials include the following:
- [DOE Energy Savings Guide](#) needs to be reviewed and left with the client

7.2. AUDIT DOCUMENTATION

All findings from the energy audit must be uploaded to the Hancock job file. Descriptions of existing conditions must be true to the actual existing conditions or at least true to the best knowledge of the auditor when a condition can't be verified through visual, diagnostic, or other means.

Photos

The job file for every weatherized dwelling shall contain specific photographic documentation of pre, interim, and post-weatherization conditions. Circumstances, events, or measures requiring mandatory photographic documentation shall include, but not be limited to:

- Conditions causing deferral or denial
- Unusual or hazardous conditions encountered during the course of work
- Justification for an atypical measure or course of action
- Verification of Lead-Safe work practices
- Photographs required for State Historic Preservation Office (SHPO) compliance
- Existing HVAC, appliances, and equipment
- Replacement HVAC, appliances, and equipment
- Verification of measures installed
- Insulation levels with insulation ruler (cellulose) properly installed

Photographic documentation shall comply with the following minimum specifications:

- Images shall be digital
- Shall be clear and easy to view
- Shall contain captions which identify the job site and the specific events being depicted
- Shall be date and time stamped
- Image source files shall be retained electronically
- The quantity of photographs taken shall be adequate to document all applicable circumstances, events, and measures

7.3. JOB CLASSIFICATION

The results of the energy audit determines the job classification. The job classification determines if work can proceed and what type of measures can be included in the work scope. Energy auditors must make the determination of job type throughout the auditing and energy modeling process based on the criteria described in this section.

7.3.1. DOE DEFERRAL PROCESS

DOE The decision to defer work in a dwelling or, in extreme cases, deny weatherization services, 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.

Reasons for deferral are identified at the time of the audit. LWAs who make an initial determination that a home is beyond the scope of DOE WAP are required to adhere to the following:

Before a house is deferred, Subgrantees are required to consult with a DHCD Quality Assurance Inspector, document Hancock by providing a description of the repairs needed, upload photographic evidence to support the repairs needed, and provide cost estimates. Pending the QA Inspector's approval, a Deferral form that is signed by the client must also be uploaded in Hancock.

When a home has been deferred, the applicant shall be notified within 10 working days of that decision. Notification shall include the following:

- Reason for deferral
- Testing results (if applicable)
- Corrective actions necessary for weatherization to continue
- Process for applicant to appeal to a higher level in the Subgrantee's organization

The Deferral Form is completed by the Subgrantee. The form template is provided by DHCD, must be filled out completely, and uploaded to the Hancock documents folder. The Hancock record must be marked as deferred and a comment of the deferred reason must be included.

Subgrantees are expected to make reasonable efforts on behalf of their clients to find alternative assistance when DHCD funds for weatherization are unable to address conditions that lead to deferral. When possible, the notice shall include a list of potential agencies with funding designed to address the specific issue which precludes a client from participating.

Whenever appropriate, educational information on how to address the hazard should be shared with the occupant. Please refer to the [MD Health and Safety Plan](#) for additional information on condition-specific client education.

Deferral conditions may include but are not limited to:

- **Condemned** - The house has been condemned or is scheduled for demolition or electrical, heating, plumbing, or other equipment has been "red tagged" by local or state building officials or utilities.
- **Extensive Work Scope** - the building is in need of extensive rehabilitation, and no such rehabilitation has been provided for.
- **Health or Safety Issues/Hazards** – *reference Health and Safety items above for specific deferral conditions.
- **Excessive Clutter or Hoarding Conditions** – If the house has excessive clutter that would impede the installation of the weatherization work performed.
- **Uncooperative Client** - The client is uncooperative, abusive, or threatening to the crew, subcontractors, auditors, inspectors, or others who must work on or visit the house. When an eligible client is uncooperative with the LWA or SWC, either in demanding that certain work be done and refusing higher priority work which is needed (e.g., demanding only windows), by being abusive to the work crew or subcontractor, or by being unreasonable in allowing access to the unit, every attempt should be made to explain the program and the benefits of the work. If this fails, work must be suspended and the DHCD Quality Assurance Inspector consulted.
- **Illegal Activities** - Illegal activities are being conducted in the dwelling unit.
- **Structure for sale** - building or dwelling unit that is for sale, or subject to bankruptcy or foreclosure.
- **Legal Dispute** - building or dwelling unit where ownership cannot be confirmed due to a legal dispute. Clear title must be established before services can be provided.
- **Conflict of interest or appearance of conflict** - when the structure is owned, managed or occupied by an employee, board member, officer or relative of a Network Partner employee, prior approval must be obtained from the regional supervisor before any work is started. If the client is a board member or senior staff member of the LWA or SWC prior approval will not be granted.

In unusual situations not covered above or where other problems of a unique nature exist, the DHCD Quality Assurance Inspector should inspect the property.

If obvious discrepancies are found between the information supplied by the client on the application and observed conditions at the time of weatherization, the LWA must resolve these questions prior to weatherization. Some examples of discrepancies are an obvious change in the client's income, (e.g., an unemployed client who is now back to work), a difference in the number of persons living in the dwelling unit, (fewer persons than listed, a person or persons not accounted for who may have income), evidence of business being conducted in the unit, etc.

If at any time prior to the beginning of the actual weatherization work, the LWA determines

that the client is no longer eligible, the unit cannot be weatherized. When an LWA has first-hand knowledge, or reason to believe that circumstances may have changed, the LWA should request an updated application from the client.

7.3.2. EMPOWER TIERED JOB SYSTEM

EmP

At the time of the audit, a LIEEP participant's home is either identified as a Denial or as a LIEEP job based on the conditions found. A LIEEP job is furthermore classified into three Tier levels as described in the sections below.

7.3.2.1. DIFFERENCES BETWEEN DENIALS AND JOB LEVELS

EmP

The following chart is to assist with determining the action to take based on project conditions. When in doubt, please consult a state inspector.

Examples of Denial vs. Tiered Project			
	Reasons for Denial	Tier 1 Job	Tier 2 Job
Fuel Type	N/A	<ul style="list-style-type: none"> Client with oil, propane, or wood as primary heating fuel and no AC. Delmarva, PE, Pepco, or Smeco client with Natural Gas as primary heating fuel and no central AC 	<ul style="list-style-type: none"> Client with electric primary heating system and / or central AC system BGE client with Natural Gas as primary heating fuel and no central AC.
Opportunity	The house is not eligible for the program due to utility provider, fuel type, building setup, ownership concerns, or apparent income eligibility fraud.	The home is already sufficiently air-sealed and insulated, however Tier 1 measures qualify for installation according to program guidelines.	The home has sufficient opportunity to perform full weatherization and meets program guidelines for all such measures.
Structural	The house has been condemned or electrical, heating, plumbing, or other equipment has been "red tagged" by local or state building officials or utilities. The	The building structure or its mechanical systems, including electrical and plumbing, are in a state of disrepair that they cannot be repaired with the program's allowable expenses	The building structure or its mechanical systems, including electrical and plumbing, are in a state of disrepair that can be resolved within the program's allowable expenses for such

	auditor determines that the structure of the home is in imminent failure based on the condition of structural elements such as beams, joists, and studs.	for such repairs.	repairs.
Sanitation	The house has severe sanitation problems such as infestation with pests or feces, threatening the health of the crew, subcontractors, auditors, inspectors, or others who must work on or visit the house.	The house has sewage or other sanitary problems that would further endanger the client and weatherization installers if full weatherization work were to be performed and repair is beyond the scope of reasonable cost justification.	The sanitary problems can be resolved by the client or within the program's allowable expenses for such items.
Moisture / Mold	The house has severe and widespread moisture damage or mold on structural building elements that put the house in a state of imminent failure.	Moisture problems are a indoor air quality concern, but do not affect the structural components of a home and are only on the surface of drywall or other finishing materials. They are at a level that they cannot be resolved within the program's allowable expenses for such repairs.	The moisture concerns can be resolved within the program's allowable expenses for such items.
Asbestos	N/A	Friable asbestos building materials or vermiculite are present.	No friable asbestos building materials or vermiculite are present or can be resolved within the program's allowable expenses for such items.
Lead Paint	N/A	The extent and condition of lead-based paint in the house would potentially create further health and safety hazards if disturbed and cannot be resolved within the program's allowable expenses for such repairs.	The lead paint concerns can be resolved within the program's allowable expenses for such items.
Client Health	The client is not available or responsive due to extensive and	The client has known health conditions that prohibit the	The client has no known health conditions that would be exacerbated by weatherizing

	prolonged health conditions.	installation of insulation and/or other weatherization materials, such as allergies to materials. Client behavior - such as not wanting insulation when it is appropriate for the program to do, should not be an excuse for performing a Tier 1 project when a Tier 2 should be done.	the home.
Client Behavior	The client is uncooperative, abusive, or threatening to the crew, subcontractors, auditors, inspectors, or others who must work on or visit the house. Illegal activities are being conducted in the dwelling unit.	N/A	N/A
Other	Identified conditions not stated in this list that reasonably prevent any measures from being installed.	Identified conditions not stated in this list that reasonably prevent air sealing or insulation measures from being installed. State approval required.	N/A

Hancock will indicate the tier level of a job on the audit information screen based on the measures selected and any prior weatherization jobs that are on record for the client.

7.3.2.2. EMPOWER DENIAL

EmP

If the home is in jeopardy of structural failure, abandonment, or other similar severe conditions, the home shall be denied services to protect ratepayer funds from being invested in property of imminent failure. It is incumbent upon the contractor to examine the structural integrity and severity of health and safety conditions of a home before proposing or starting any work. No audit fee and no measures are billable for a denied home client.

Every denial requires state inspector approval. After inspector approval of the denial, a denial letter has to be filled out, provided to the client, and uploaded to the client record in the

Documents tab. The client record has to be marked as a Denial and a detailed denial reason must be provided in the comments section.

7.3.2.3. EMPOWER TIERED JOB LEVELS

EmP

The table below provides an overview of the requirements for each Tier level job. Hard job caps are inclusive of audit fees and H&S spending.

LIEEP Tiered Job Levels Overview			
Tier	Project Type	Measure Eligibility	Limitations
Tier 1	Condition of home does not meet program guidelines for full weatherization	<ul style="list-style-type: none"> ● Baseload measures (lighting, appliances, water conservation, thermostats, etc.) ● HVAC measures or combustion appliances under certain conditions 	
Tier 2	Whole house weatherization	<ul style="list-style-type: none"> ● Baseload measures ● HVAC measures ● Building shell measures 	Services can only be provided to homes where indoor air quality or health & safety problems allow air sealing and insulation per BPI standards or those concerns can be fixed within the allotted budget.
Tier 3	Weatherization of previous Tier 1 home that has been repaired	<ul style="list-style-type: none"> ● Baseload measures other than previously installed ● HVAC measures other than previously installed ● Building shell measures 	Previous Tier 1 homes can receive Tier 2 services provided that the applicant submits proof of repairs made.

7.3.2.4. EMPOWER TIER 1 JOB

EmP

A Tier 1 project is a project that is in a condition of disrepair due to the lack of maintenance, or health and safety conditions that cannot be corrected within program budget and SIR guidelines to allow the installation of building shell measures. A home in a severe condition of disrepair as described in [this section](#) does not qualify.

This type of job requires a full energy audit and whole house energy model. If the reason for Tier 1 classification is due to health and safety, diagnostic testing may be limited to the tests that are safe under the existing conditions (refer to SWS). Direct install measures that are

expected to meet SIR requirements can be installed at the audit at the Network Partner's own risk, but will not be reimbursable unless the job meets all EmPOWER requirements.

Measures that may qualify for installation in any Tier 1 qualifying homes include light bulbs and water conservation measures, programmable or smart thermostats, appliances, electric hot water heaters, distribution system sealing and insulation. Any measures other than building envelope changes must be considered and modeled for upgrades as program cost-effectiveness and technical guidelines require.

A Tier 1 project may qualify for the replacement or repair of HVAC systems and combustion water heaters where the replacement does not cause a negative impact on the health and safety of the occupants or degradation of the building materials. HVAC systems can be repaired or replaced in cases where they don't negatively affect the indoor air quality of the home. **Sound building science principles must be used in making this determination.** The client file must also clearly describe why the project is considered eligible for such measures and that the action will not cause or create undesirable conditions in the home. Remember that all HVAC and combustion appliance measures require state approval. Health & safety measures and Incidental Repairs as they pertain to the proposed measures are allowed.

For each Tier 1 job a deferral form must be provided to the client and uploaded to Hancock, explaining the actions to resolve any H&S concerns and how to re-enter as a Tier 3 job.

Tier 1 jobs are exempt from full QC inspections, but require a job completion form to be filled in, signed, and uploaded. Refer to [QC requirements](#) for additional details. Tier 1 jobs are included in the sample for QA inspections.

See [this section](#) for more details on allowable measures.

7.3.2.5. EMPOWER TIER 2 JOB

EmP A comprehensive retrofit job is classified as a Tier 2 job. It shall receive [all measures that meet program requirements](#) and follows the regular job procedures as specified in this document. This is considered a full weatherization job.

7.3.2.6. EMPOWER TIER 3 JOB

EmP A job that was previously completed as a deferral or Tier 1 job, and that has had health and safety and other concerns resolved, is eligible to receive building shell and other measures as a Tier 3 job. Tier 3 jobs can be performed at any time after the Tier 1 job has had all necessary repairs performed. The 5 year re-weatherization rule only applies to Tier 1 and Tier 2 jobs. DHCD will make every effort to assign Tier 3 clients to the same agency that performed the Tier 1 job. If the Tier 1 agency no longer participates in the program or has run out of funding,

the Tier 3 client may be assigned to a different agency together with information about the prior Tier 1 scope.

Network Partners must instruct Tier 1 clients to contact the Network Partner directly when the health and safety conditions are resolved and provide proof of such resolution. If their income certification is still valid, the network partner can create a second job under the same client record in Hancock and proceed with the Tier 3 job. If the income certification has expired, a [new application has to be submitted to DHCD](#).

Network Partner must verify on site that the health and safety issues were resolved and re-test diagnostics such as blower door and combustion tests. Another full audit is not required, however the auditor must verify that the existing conditions have not changed otherwise and make corrections in the job file.

The Tier 3 job can only receive measures it hasn't received as part of the Tier 1 scope. The Tier 1 and Tier 3 combined EmPOWER funding at the home cannot exceed the [job cost caps for a Tier 2 job](#).

7.4. MULTI-UNIT ENERGY AUDITS

Energy audits for multi-unit properties follow the same guidelines as described for single family homes. An audit must be performed for each individual unit at the property. While Hancock allows the ability to copy job information from a similar unit, the energy auditor is responsible for verifying that all data is correct for the unit it is reported for.

8. WORK SCOPE

Based on the energy audit findings, decisions have to be made as to which measures can be installed. The work scope shall meet the following requirements:

- Prioritization of health and safety improvements according to their urgency and importance.
- Prioritization of ECMs according to cost effectiveness, and feasibility.
- Pre-work and post-work documented verification, such as diagnostic testing and all measures identified as part of the audit.
- Work scope is modeled in Hancock reflecting the actual conditions on site.
- The network partner must follow all current guidelines regarding measure availability and HEAT modeling. Only services that pass the savings to investment ratio tests may be installed.

EmP

Work scopes for re-weatherization projects or EmPOWER Tier 3 jobs are limited to the installation of measures not already installed during the initial weatherization effort.

MEAP Work scopes are limited to: Heating and cooling systems replacements/repairs, water heater replacements/repairs, health and safety measures and incidental repairs that are needed to facilitate the installation of a new cooling or heating system, and weatherization measures. Installed weatherization measures paid for with MEAP funds must have a Savings-to-Investment Ratio (SIR) of 1.0 or greater.

8.1. WEATHERIZATION STANDARDS

The Standard Work Specifications (SWS), developed by the National Renewable Energy Laboratory (NREL) and adopted by DOE, define the minimum requirements to ensure that the work performed during energy upgrades in single-family, multifamily, and manufactured homes is effective, durable, and safe. This set of Standards has been integrated into the new Maryland Field Guide.

The Maryland Field Guide is designed to be specific to Maryland relevant measures, provide clear measure installation guidance, and tie in the applicable Standard for each measure. The DHCD Field Guides and standards will be provided by DHCD to all weatherization partner organizations at the Annual Network partners meetings.

All recipients shall sign a form acknowledging that they have received them. Mailings will also be sent to those not in attendance, which will require a mailed or emailed confirmation of receipt. Failure to do so will result in a “Stop Work” order from DHCD. An electronic version of the Maryland Field Guide is available online through a link on the bulletin page on Hancock and on DHCD’s website on the energy efficiency programs page.

8.2. LEVERAGING MULTIPLE FUNDING SOURCES

Leveraging is the practice of utilizing two or more compatible funding sources to maximize the weatherization services. Leveraged funds are ancillary funds to complete EmPower/DOE jobs where additional funds are needed. Leveraging funds should allow more holistic jobs and maximize DHCD funding to serve additional citizens. It also allows for fewer denials and EmPOWER Tier 1 jobs.

Network Partners must document leveraged funds on any DHCD EmPower or DOE WAP funded projects. This includes work such as roofing, lead/asbestos and microbial abatement and remediation, etc. Funding sources classified as “Other” are any funding sources that are not managed by DHCD HBEP, such as MHRP, CDBG, HUD, USDA, HOME, etc.

The network partner must document its efforts to leverage funds on every job by entering comments in Hancock and provide explanation as to why leveraging was not possible in specific cases.

Neither DOE nor EmPOWER can have only IR or HS measures tied to it. These funding sources must have at least one ES measure on each job they are used on. An IR measure must use the same funding source

as the ES measure it relates to.

DOE Although coordination is strongly encouraged, subgrantees are reminded that there are core program principles that must be maintained as follows:

- Assisted households must be eligible under WAP rules; all WAP policy must be followed.
- There must be an approved DOE energy audit with an evaluation of energy-related health and safety (H&S) conditions, analyzing existing building conditions and building energy use. There must also be a written scope of the work that documents the work that will be funded by WAP and the work that will be funded by other sources.
- Material and installation standards must meet DOE WAP requirements.

MEAP To maximize energy savings and comfort associated with heating/cooling system and water heater replacements, leveraging with energy efficiency funds should be considered for units with weatherization opportunities.

8.2.1. FUNDING SOURCES COMPATIBILITY AND RULES

Leveraged funds may be used to offset measure costs so long as the measure meets all program requirements and the funding sources are allowed to be blended. The table below indicates (✓) which funding sources can be leveraged on the same job and which combinations are prohibited (✗).

Leveraged Funds Compatibility						
	DOE	EmPOWER	MEAP	RGGI	Homeowner Contribution	Other "Leveraged"
DOE		✓	n/a	✓	n/a	✓
EmPOWER	✓		✓	✗	✓	✓
MEAP	✓	✓		✓	n/a	✓
RGGI	✓	✗	✓		n/a	✓
Homeowner Contribution	n/a	✓	n/a	n/a		n/a
Other "Leveraged"	✓	✓	✓	✓	n/a	

The following program specific rules apply to leveraging:

DOE A DOE weatherized unit is a dwelling on which a DOE-approved energy audit has been applied and weatherization work has been completed. As funds allow, the measures installed on this unit and paid for with DOE funds have a Savings-to-Investment Ratio (SIR) of 1.0 or greater, but also may include any necessary energy-related health and safety measures.

When combining other funding sources with DOE, the entire job must pass QCI/QA according to DOE standards.

EmP Required homeowner contribution for EmPower jobs:

- Rental units where capital investments are being made. A contribution is required where identified in the [measure requirements](#).
- 50% of the total installed cost is required.
- The landlord is responsible to cover the cost. Leveraged funds cannot be used for the 50% contribution.
- Contribution must be documented in Hancock and the BOA
- Landlord contributions are classified as the funding source “Homeowner Contribution” in Hancock.

Tier Levels:

- If EmPOWER is leveraged with DOE on a home that is not eligible for EmPOWER based on fuel type, only Tier 1 measures can be assigned to the EmPOWER funding source.

MEAP MEAP funds can be leveraged with any other funding sources that will install weatherization measures. Other funding sources may also be leveraged to share the costs associated with heating/cooling system and water heater replacements.

RGGI RGGI funds cannot be used as a stand-alone funding source. RGGI funds are provided strictly to permit greater flexibility to retrofit homes that would otherwise not be eligible under the DOE WAP due to structural and/or health and safety issues. Therefore DOE and RGGI must be used together.

8.2.2. DOCUMENTATION OF LEVERAGED FUNDS

Any leveraging has to be documented in the work scope in Hancock by applying the respective funding sources to each measure.

- DHCD-managed funding sources are available by name and program year in Hancock (e.g. MEAP-2018, DOE2017, etc.)
- EmPOWER Landlord Contributions are to be logged as “Homeowner Contribution”
- Any other non-DHCD-managed funding sources are documented as “Leveraged”.

Leveraging should occur within the same job (job/client number) whenever possible. Creating two separate jobs is not ideal and only to be used in exceptions when the scopes of the two funding sources are not applied at the same time.

When applying outside funding sources not provided by DHCD, make notes in the client comment section regarding the measure and source of leveraged funds. Select “Leveraged” as the fund source. Add a note in the specific measure that indicates the measure is leveraged.

EmP

How to Document 50% Homeowner Contribution:

- Enter the full cost of the measure
- On the select measure screen select the middle button (looks like a piece of paper) this will pull up the Assign Measure Fund Source page
- Select the add record button
- From the drop down menu select the primary EmPOWER funding source
- Select the quantity to 0.5; this will split the cost in half
- Hit save
- Select the add record button
- From the drop down menu select Leveraged as the funding source
- Click in the quantity box and it will automatically add the quantity to 0.5; this will account for the remaining balance of the measure
- Hit Save
- Select save and close.
- At the WAP Document section upload receipt of payment to the “Copy of Landlord Contribution Payment”
- Close out the job as normal
- When the job is invoiced only 50% of the measure cost will be processed for payment
- The network partner is responsible for the collection of the Landlord contribution

MEAP

How to Split the Cost of a System Replacement:

- Enter the full cost of the measure
- On the select measure screen select the middle button (looks like a piece of paper) this will pull up the Assign Measure Fund Source page
- Select the add record button
- From the drop down menu select the primary EmPOWER funding source
- Select the quantity to 0.5; this will split the cost in half
- Hit save
- Select the add record button
- From the drop down menu select Leveraged as the funding source
- Click in the quantity box and it will automatically add the quantity to 0.5; this will account for the remaining balance of the measure

- Hit Save
- Select save and close.

8.3. ALLOWABLE MEASURES

Measures are classified into three categories: Energy Conservation Measures, Health & Safety, and Incidental Repairs. All three categories are allowable for DHCD’s energy programs with certain measure specific requirements as defined in the following sections. The following sections define what existing conditions have to be present to allow a certain measure and any other restrictions that limit the application of a measure to a certain job. A measure must meet all requirements for the funding source that funds it.

All materials must be installed in accordance with the SWS-aligned DHCD Field Guide, including applicable codes, regulations, manufacturers' specifications and recommendations and in accordance with generally accepted industry standards.

EmP A pre-defined list of measures is included in each program cycle’s regulations. The measure list as well as any proposed changes to it must be reviewed by the limited income work group before it can be presented to the PSC for approval.

8.3.1. ENERGY MEASURES

The following sections list the requirements energy conservation measures (“ECM”) have to meet.

DOE All DOE WAP energy measures must meet an SIR of 1 or greater with air sealing being the exception.

Decisions as to which ECMs are to be installed are determined by the DOE approved energy audit results and 10 CFR 440, Appendix A and in accordance with the SWS-aligned Field Guide. Any changes to the energy audit software must first be approved by DOE.

EmP EmPOWER measure requirements are defined by measure category. Please see the requirements in the following sections and refer to the approved measure list for more details regarding sizes and technical specifications of certain measures.

MEAP Energy Star qualified equipment is required for system replacements. There are no SIR requirements for heating, cooling and water heater replacements.

All energy measures must meet an SIR of 1 or greater with air sealing being the exception.

Decisions as to which ECMs are to be installed are determined by the DOE approved energy audit results and 10 CFR 440, Appendix A and in accordance with the SWS-aligned Field Guide.

RGGI

HVAC or fossil fuel furnace system repairs or replacements necessary for a home to receive retrofit through the DOE WAP. Expenditures up to an average cost of \$5,000 per residential unit for the replacement of inefficient HVAC or fossil fuel equipment with Energy Star qualified HVAC equipment are allowed.

8.3.1.1. APPLIANCES AND BASELOAD

Refrigerator	
Category:	Appliances and Baseload
Examples*:	Refrigerator only, Refrigerator/ Freezer Combination.
Description:	Includes labor and material to install unit, remove, haul away and dispose of existing unit as per local/State code/laws. Replace existing appliance with comparable size and type unit.
Existing Condition	EmP
Age of Existing Equipment	5 years or older
Existing Efficiency	N/A
Existing Energy Usage	Must be metered: <ul style="list-style-type: none"> • 15 c.ft.: at least 0.08 kWh/h • 16-19 c.ft.: at least 0.10kWh/h • 20-21 c.ft.: at least 0.11 kWh/h • 22 c.ft. or greater: at least 12kwh/h
Existing Technical Specifications	N/A
Job Tier	1,2,3
Other	N/A
Measure	EmP
Measure Level SIR	1.0
Work Specifications	7.8001.1
Technical Specifications	<ul style="list-style-type: none"> • Energy Star certified • CEE qualified • One year manufacturer warranty
Documentation	Photo of old appliance, metering result, new appliance. Warranty information must be left with owner.
Other	<ul style="list-style-type: none"> • 50% landlord contribution required if appliances are not owned by tenant. • Inspector approval required

* Specific eligible measures by funding source can be found in the appendix on the program measure lists.

Freezer	
Category:	Appliances and Baseload
Examples*:	Chest Freezer, Upright Freezer
Description:	Includes labor and material to install unit, remove, haul away and dispose of existing unit as per local/State code/laws. Replace existing appliance with comparable size and type unit.
Existing Condition	EmP
Age of Existing Equipment	5 years or older
Existing Efficiency	Determine existing appliance wattage through manufacturer specifications, or based on age if specifications are not available.
Existing Energy Usage	N/A
Existing Technical Specifications	N/A
Job Tier	1,2,3
Other	N/A
Measure	EmP
Measure Level SIR	1.0
Work Specifications	7.8001.1
Technical Specifications	<ul style="list-style-type: none"> ● Energy Star certified ● CEE qualified ● One year manufacturer warranty
Documentation	Measure must be documented with photos of the existing unit, manufacturer specifications, photos of new appliance. Warranty information must be left with owner.
Other	<ul style="list-style-type: none"> ● 50% landlord contribution required if appliances are not owned by tenant. ● Inspector approval required

* Specific eligible measures by funding source can be found in the appendix on the program measure lists.

Other Large Appliances	
Category:	Appliances and Baseload
Examples*:	Dishwasher, Clothes Washer, Clothes Dryer
Description:	Includes labor and material to install unit, remove, haul away and dispose of existing unit as per local/State code/laws. Replace existing appliance with comparable size and type unit.
Existing Condition	EmP
Age of Existing Equipment	5 years or older
Existing Efficiency	Determine existing appliance wattage through manufacturer specifications, or based on age if specifications are not available.
Existing Energy Usage	N/A
Existing Technical Specifications	Electric appliances only
Measure SIR	1.0
Job Tier	1,2,3
Other	N/A
Measure	EmP
Measure Level SIR	1.0
Work Specifications	7.8101.5; 7.8004.2; 7.8004.1
Technical Specifications	<ul style="list-style-type: none"> • Energy Star certified • CEE qualified (if applicable) • One year manufacturer warranty
Documentation	Measure must be documented with photos of the existing unit, manufacturer specifications, photos of new appliance. Warranty information must be left with owner.
Other	<ul style="list-style-type: none"> • 50% landlord contribution required if appliances are not owned by tenant. • Inspector approval required

* Specific eligible measures by funding source can be found in the appendix on the program measure lists.

Dehumidifier	
Category:	Appliances and Baseload
Examples*:	Dehumidifier
Description:	Includes labor and material to install unit, remove, haul away and dispose of existing unit as per local/State code/laws. Replace existing appliance with comparable size and type unit.
Existing Condition	EmP
Age of Existing Equipment	10 years or older
Existing Efficiency	N/A
Existing Energy Usage	N/A
Existing Technical Specifications	N/A
Measure SIR	N/A
Job Tier	1,2,3
Other	N/A
Measure	EmP
Measure Level SIR	N/A
Work Specifications	2.0404.4; 2.0404.1; 2.0404.3
Technical Specifications	<ul style="list-style-type: none"> • Energy Star certified • CEE qualified • One year manufacturer warranty • Minimum capacity of 70 pints
Documentation	<ul style="list-style-type: none"> • Photo documentation and description identifying the need for dehumidification. Photos of new appliance.
Other	N/A

* Specific eligible measures by funding source can be found in the appendix on the program measure lists.

Ceiling Fan	
Category:	Appliances and Baseload
Examples*:	Ceiling Fan, Ceiling Fan with LED Lighting
Description:	Includes labor and material to install unit, remove, haul away and dispose of existing unit as per local/State code/laws. Replace with like unit in size and type.
Existing Condition	EmP
Age of Existing Equipment	N/A
Existing Efficiency	N/A
Existing Energy Usage	N/A
Existing Technical Specifications	Incandescent or fluorescent lighting
Measure SIR	N/A
Job Tier	1,2,3
Other	N/A
Measure	EmP
Measure Level SIR	N/A
Work Specifications	5.3301.1
Technical Specifications	<ul style="list-style-type: none"> • Energy Star certified • One year manufacturer warranty
Documentation	Photo documentation and description identifying the need for ceiling fan installation/replacement. Photos of new appliance.
Other	N/A

* Specific eligible measures by funding source can be found in the appendix on the program measure lists.

Advanced Power Strip	
Category:	Appliances and Baseload
Examples*:	Advanced power strip/supply
Description:	Includes installation on electronic equipment, TVs, or computers. Includes homeowner education on use.
Existing Condition	EmP
Age of Existing Equipment	N/A
Existing Efficiency	N/A
Existing Energy Usage	N/A
Existing Technical Specifications	At least one dependent device present
Measure SIR	N/A
Job Tier	1,2,3
Other	N/A
Measure	EmP
Measure Level SIR	N/A
Work Specifications	7.8002.1
Technical Specifications	Master controlled
Documentation	Photo documentation of installed strip in Hancock
Other	N/A

* Specific eligible measures by funding source can be found in the appendix on the program measure lists.

8.3.1.2. LIGHTING

Light Bulbs	
Category:	Lighting
Examples*:	All types and sizes
Description:	<ul style="list-style-type: none"> Identify the most used fixtures in the dwelling based on information obtained during the customer interview Examine the existing light fixture to be replaced and determine the wattage/type of bulb (compact fluorescent, quad, etc.) to be used. Generally, a lamp must be on for 2 hours or more per day for a LED bulb to be cost effective. Obtain permission of the occupant to replace specific bulbs. Remove light fixture cover, remove existing bulb, install new bulb, wipe fixture cover if needed, re-install fixture cover, safely recycle old bulb.
Existing Condition	EmP
Age of Existing Equipment	N/A
Existing Efficiency	N/A
Existing Energy Usage	N/A
Existing Technical Specifications	Incandescent or fluorescent
Measure SIR	N/A
Job Tier	1,2,3
Other	N/A
Measure	EmP
Measure Level SIR	N/A
Work Specifications	7.8003.1b
Technical Specifications	<ul style="list-style-type: none"> Energy Star certified (bulbs) DLC listed (TLEDs)
Documentation	Document actual (approx.) hours of use in Hancock in baseload- lighting section with actual hours. Photos of new bulbs.
Other	Replace like with like bulb types

* Specific eligible measures by funding source can be found in the appendix on the program measure lists.

Occupancy Sensors	
Category:	Lighting
Examples*:	Wall mount sensor, vacancy or occupancy type
Description:	Remove existing light switch and replace with IR occupancy or vacancy sensor. Adjust sensor settings per occupant preferences. Install sensors only in agreement with homeowner and compatible with the light source.
Existing Condition	EmP
Age of Existing Equipment	N/A
Existing Efficiency	N/A
Existing Energy Usage	N/A
Existing Technical Specifications	No occupancy sensor present
Measure SIR	N/A
Job Tier	1,2,3
Other	N/A
Measure	EmP
Measure Level SIR	N/A
Work Specifications	7.8003.1b
Technical Specifications	<ul style="list-style-type: none"> • PIR technology • No manual override
Documentation	Photos of new device.
Other	N/A

* Specific eligible measures by funding source can be found in the appendix on the program measure lists.

8.3.1.3. DOMESTIC HOT WATER SYSTEMS

Domestic Water Heater	
Category:	Hot Water
Examples*:	All sizes, eligible fuel types, and systems
Description:	Replaces existing water heater of similar size. Includes all materials, permits, and labor to install, test and place unit in service.
Existing Condition	EmP
Age of Existing Equipment	10 Years or older
Existing Efficiency	N/A
Existing Energy Usage	N/A
Existing Technical Specifications	N/A
Job Tier	<ul style="list-style-type: none"> • Tier 1: electric DHW. Gas DHW (if eligible) only if no H&S concerns. • Tiers 2,3
Other	Natural Gas DHW in BGE territory only
Measure	EmP
Measure Level SIR	1.0
Work Specifications	7.8102.1; 7.8102.3 for on demand systems; 7.8102.8 heat pump water heater.
Technical Specifications	<ul style="list-style-type: none"> • Energy Star certified • 6 year manufacturer warranty
Documentation	Measure must be documented with photos and a description of the existing units issues. Warranty information must be left with owner.
Other	<ul style="list-style-type: none"> • 50% landlord contribution required if DHW is not owned by tenant. • Inspector approval required • Water heaters that are dangerous or have combustion issues can be replaced under Health and Safety if the SIR of 1.0 cannot be met and it is approved by a Quality Assurance Inspector.

* Specific eligible measures by funding source can be found in the appendix on the program measure lists.

Faucet Aerators	
Category:	Hot Water
Examples*:	Low flow faucet aerators for kitchen and bathroom faucets
Description:	Replace aerators. Ensure leakfree installation.
Existing Condition	EmP
Age of Existing Equipment	N/A
Existing Efficiency	>= 2 gpm
Existing Energy Usage	N/A
Existing Technical Specifications	N/A
Job Tier	1,2,3
Other	Any DHW fuel type in any utility territory
Measure	EmP
Measure Level SIR	N/A
Work Specifications	7.8101.2
Technical Specifications	<=1.5gpm
Documentation	Photo documentation of existing and replacement aerators
Other	N/A

* Specific eligible measures by funding source can be found in the appendix on the program measure lists.

Showerheads	
Category:	Hot Water
Examples*:	Low flow showerheads (fixed and handheld)
Description:	Replace existing shower head. Ensure leakfree installation.
Existing Condition	EmP
Age of Existing Equipment	N/A
Existing Efficiency	N/A
Existing Energy Usage	>= 2.5gpm
Existing Technical Specifications	N/A
Job Tier	1,2,3
Other	Any DHW fuel type in any utility territory
Measure	EmP
Measure Level SIR	N/A
Work Specifications	7.8101
Technical Specifications	1.75 gpm or less
Documentation	Photo documentation of existing fixture and replacement.
Other	N/A

* Specific eligible measures by funding source can be found in the appendix on the program measure lists.

Water Pipe Insulation	
Category:	Hot Water
Examples*:	Domestic water line insulation, ½ - ¾" thick
Description:	Install insulation on hot water pipes. Focus on unconditioned spaces and first 6 feet from water heater. Insulation must be mechanically fastened for permanent installation. Corners must be mitred and seams taped.
Existing Condition	EmP
Age of Existing Equipment	N/A
Existing Efficiency	N/A
Existing Energy Usage	N/A
Existing Technical Specifications	No existing insulation, or existing but deteriorated and nominally ineffective
Job Tier	1,2,3
Other	Any DHW fuel type in any utility territory
Measure	EmP
Measure Level SIR	N/A
Work Specifications	7.8104.3d
Technical Specifications	<ul style="list-style-type: none"> • Minimum requirement R-2, polyethylene • up to ¾" thick
Documentation	Photos in Hancock
Other	N/A

* Specific eligible measures by funding source can be found in the appendix on the program measure lists.

Water Tank Insulation	
Category:	Hot Water
Examples*:	30-50 gallon hot water tank insulation blankets for gas and electric tanks
Description:	Install per manufacturer specifications, tape all seams, label with DHW specifications
Existing Condition	EmP
Age of Existing Equipment	N/A
Existing Efficiency	N/A
Existing Energy Usage	N/A
Existing Technical Specifications	<ul style="list-style-type: none"> • No existing blanket, or blanket has failed • Tank is eligible for additional insulation (Check tank mfr to see if tank may receive additional insulation)
Job Tier	1,2,3
Other	Any DHW fuel type in any utility territory
Measure	EmP
Measure Level SIR	N/A
Work Specifications	7.8102.1, 7.8102.2
Technical Specifications	<ul style="list-style-type: none"> • R-11 for tanks in unconditioned spaces • R8 for other applications
Documentation	Photos in Hancock
Other	N/A

* Specific eligible measures by funding source can be found in the appendix on the program measure lists.

Thermostatic Shut-off Valve	
Category:	Hot Water
Examples*:	Showerstart Valve
Description:	Obtain client approval prior to installing. Install with existing or new showerhead. Ensure leakfree installation. Provide client education on use of this device
Existing Condition	EmP
Age of Existing Equipment	N/A
Existing Efficiency	N/A
Existing Energy Usage	N/A
Existing Technical Specifications	No thermostatic shut-off valve existing
Job Tier	1,2,3
Other	Electric DHW only. Install on gas heated hot water only in BGE territory.
Measure	EmP
Measure Level SIR	N/A
Work Specifications	7.8101
Technical Specifications	<ul style="list-style-type: none"> ● Showerstart brand or equivalent ● Minimum flow rate of 45psi and maximum flow to 80 psi ● Adjust hot water tank temperature to 120 degrees F
Documentation	Photos in Hancock.
Other	N/A

* Specific eligible measures by funding source can be found in the appendix on the program measure lists.

8.3.1.4. HEATING AND COOLING

Forced Air Heating System (fossil fuel fired)		
Category:	Heating and Cooling	
Examples*:	Replacement of fossil fueled primary heating systems	
Description:	Replaces existing primary heating system. Includes all materials, permits, and labor to install, test and place unit in service.	
Existing Condition	EmP	MEAP
Age of Existing Equipment	10 years or older	N/A
Existing Efficiency	N/A	Steady State Efficiency is <69%
Existing Energy Usage	N/A	N/A
Existing Technical Specifications	N/A	N/A
Job Tier	<ul style="list-style-type: none"> • Tier 1, if the new system does not exacerbate health and safety concerns • Tier 2,3 	Crisis no heat cases and non-crisis no heat cases
Other	<ul style="list-style-type: none"> • Natural Gas system replacement in BGE territory only. • No oil or propane system replacements. • “Red-tagged” or inoperable system replacement is possible if current efficiency information is available. If the system repair or replacement provides a measure SIR of 1.1 and the total project SIR does not fall below 1.1, it can be completed as an energy-saving measure. Efficiency testing results must be available “pre-failure.” 	Any of the following conditions exists: <ul style="list-style-type: none"> • Proven cracked heat exchanger • Flue gas CO levels exceed BPI standards • CO is evident in ambient air • Health and safety of family is at risk • No operable central heating system exists, however an existing distribution system exists that can be used for the new system • Estimated repairs to the central system exceed 60% of the replacement costs and life expectancy is less than 5 years
Measure	EmP	MEAP
Measure Level SIR	N/A	N/A
Work Specifications	5.3002.1	5.3002.1
Technical Specifications	<ul style="list-style-type: none"> • Minimum 1 year manufacturer warranty from date of install including a 10 year warranty on heat exchanger. • Replacements must be a minimum of 95 AFUE (unless prohibited by SHPO or code) 	<ul style="list-style-type: none"> • Energy Star rated or approved equivalent • Install per mfr. Instruction; • 1 year labor warranty
Documentation	Manual J load calculation	Manual J load calculation
Other	<ul style="list-style-type: none"> • 50% landlord contribution required if system is not owned by tenant. 	<ul style="list-style-type: none"> • Inspector approval required

	<ul style="list-style-type: none"> ● Inspector approval required 	
--	---	--

* Specific eligible measures by funding source can be found in the appendix on the program measure lists.

Heat Pump		
Category:	Heating and Cooling	
Examples*:	All sizes	
Description:	Replaces existing primary heating system. Includes all materials, permits, and labor to install, test and place unit in service.	
Existing Condition	EmP	MEAP
Age of Existing Equipment	10 years or older	N/A
Existing Efficiency	10 SEER or less	N/A
Existing Energy Usage	Summer and winter use at least 4,500 kWh above baseload	N/A
Existing Technical Specifications	N/A	N/A
Job Tier	<ul style="list-style-type: none"> ● Tier 1, if the new system does not exacerbate health and safety concerns ● Tier 2,3 	Crisis no heat cases and non-crisis no heat cases
Other	<p>“Red-tagged” or inoperable system replacement is possible if current efficiency information is available. If the system repair or replacement provides a measure SIR of 1.1 and the total project SIR does not fall below 1.1, it can be completed as an energy-saving measure. Efficiency testing results must be available “pre-failure.”</p>	<p>Any of the following conditions exists:</p> <ul style="list-style-type: none"> ● Health and safety of family is at risk ● No operable central heating system exists, however an existing distribution system exists that can be used for the new system ● Estimated repairs to the central system exceed 60% of the replacement costs and life expectancy is less than 5 years
Measure	EmP	MEAP
Measure Level SIR	N/A	N/A
Work Specifications	5.3002.1	5.3002.1
Technical Specifications	<ul style="list-style-type: none"> ● HSPF 9, SEER 16 ● Minimum 1 year manufacturer warranty from date of install 	<ul style="list-style-type: none"> ● Energy Star rated or approved equivalent ● Install per mfr. Instruction;
Documentation	<ul style="list-style-type: none"> ● Manual J load calculation ● Photos before and after 	<ul style="list-style-type: none"> ● Manual J load calculation ● Photos before and after
Other	<ul style="list-style-type: none"> ● 50% landlord contribution required if system is not owned by tenant. ● Inspector approval required 	<ul style="list-style-type: none"> ● Inspector approval required

* Specific eligible measures by funding source can be found in the appendix on the program measure lists.

Central Air Conditioner	
Category:	Heating and Cooling
Examples*:	All sizes
Description:	Replaces existing central cooling system. Includes all materials, permits, and labor to install, test and place unit in service.
Existing Condition	EmP
Age of Existing Equipment	10 years or older
Existing Efficiency	10 SEER and less
Existing Energy Usage	Summer and winter use at least 3,000 kWh above baseload
Existing Technical Specifications	N/A
Job Tier	<ul style="list-style-type: none"> ● Tier 1, if the new system does not exacerbate health and safety concerns ● Tier 2,3
Other	“Red-tagged” or inoperable system replacement is possible if current efficiency information is available. If the system repair or replacement provides a measure SIR of 1.1 and the total project SIR does not fall below 1.1, it can be completed as an energy-saving measure. Efficiency testing results must be available “pre-failure.”
Measure	EmP
Measure Level SIR	N/A
Work Specifications	5.3002.1
Technical Specifications	16 SEER manufacturer rated when installed with compatible air handler
Documentation	<ul style="list-style-type: none"> ● Manual J load calculation ● Photos before and after
Other	<ul style="list-style-type: none"> ● 50% landlord contribution required if system is not owned by tenant. ● Inspector approval required

* Specific eligible measures by funding source can be found in the appendix on the program measure lists.

Ductless Mini Split Heat Pump	
Category:	Heating and Cooling
Examples*:	All sizes
Description:	Replaces existing electric heating system. Includes all materials, permits, and labor to install, test and place unit in service.
Existing Condition	EmP
Age of Existing Equipment	N/A
Existing Efficiency	N/A
Existing Energy Usage	N/A
Existing Technical Specifications	Only to replace electric baseboard heating
Job Tier	<ul style="list-style-type: none"> ● Tier 1, if the new system does not exacerbate health and safety concerns ● Tier 2,3
Other	N/A
Measure	EmP
Measure Level SIR	N/A
Work Specifications	53002.1
Technical Specifications	<ul style="list-style-type: none"> ● HSPF 9.0 or higher ● SEER 17 or higher ● Minimum 1 year manufacturer warranty from date of install
Documentation	<ul style="list-style-type: none"> ● Manual J load calculation ● Photos before and after
Other	<ul style="list-style-type: none"> ● 50% landlord contribution required if system is not owned by tenant. ● Inspector approval required

* Specific eligible measures by funding source can be found in the appendix on the program measure lists.

Window AC Unit	
Category:	Heating and Cooling
Examples*:	All sizes
Description:	Replaces existing window AC unit. Includes all materials and labor to install, test and place unit in service. Includes evaluation of electrical receptacle the unit will be plugged into.
Existing Condition	EmP
Age of Existing Equipment	10 years or older, if Energy Star rated
Existing Efficiency	N/A
Existing Energy Usage	N/A
Existing Technical Specifications	N/A
Job Tier	<ul style="list-style-type: none"> • Tier 1, if the new system does not exacerbate health and safety concerns • Tier 2,3
Other	N/A
Measure	EmP
Measure Level SIR	N/A
Work Specifications	53002.1
Technical Specifications	<ul style="list-style-type: none"> • Energy Star certified • Minimum 1 year manufacturer warranty from date of install • CEE qualified
Documentation	<ul style="list-style-type: none"> • Photos before and after
Other	N/A

* Specific eligible measures by funding source can be found in the appendix on the program measure lists.

Hydronic Boiler		
Category:	Heating and Cooling	
Examples*:	All sizes	
Description:	Replaces existing boiler. Includes all materials, permits, and labor to install, test and place unit in service. Distribution system must be evaluated for leaks.	
Existing Condition	EmP	MEAP
Age of Existing Equipment	10 years or older	N/A
Existing Efficiency	N/A	Steady State Efficiency is <69%
Existing Energy Usage	N/A	N/A
Existing Technical Specifications	N/A	N/A
Job Tier	<ul style="list-style-type: none"> • Tier 1, if the new system does not exacerbate health and safety concerns • Tier 2,3 	Crisis no heat cases and non-crisis cases
Other	<ul style="list-style-type: none"> • Natural Gas system replacement in BGE territory only. • No oil or propane system replacements. • “Red-tagged” or inoperable system replacement is possible if current efficiency information is available. If the system repair or replacement provides a measure SIR of 1.1 and the total project SIR does not fall below 1.1, it can be completed as an energy-saving measure. Efficiency testing results must be available “pre-failure.” 	Any of the following conditions exists: <ul style="list-style-type: none"> • Flue gas CO levels exceed BPI standards • CO is evident in ambient air • Health and safety of family is at risk • No operable central heating system exists, however an existing distribution system exists that can be used for the new system • Estimated repairs to the central system exceed 60% of the replacement costs and life expectancy is less than 5 years • Distribution system must be evaluated for leaks
Measure	EmP	MEAP
Measure Level SIR	N/A	N/A
Work Specifications	5.3102	5.3102
Technical Specifications	<ul style="list-style-type: none"> • Minimum of 85 AFUE • High efficiency integrated HWB/DHW allowable • Minimum 10 year manufacturer warranty on tank from date of manufacture. • Minimum 1 year manufacturer warranty on parts from the date of purchase. 	<ul style="list-style-type: none"> • Replacements must be a minimum of 85 AFUE • High efficiency integrated HWB/DHW allowable
Documentation	<ul style="list-style-type: none"> • Manual J load calculation • Photos before and after 	<ul style="list-style-type: none"> • Manual J load calculation • Photos before and after
Other	<ul style="list-style-type: none"> • 50% landlord contribution required if system is not owned by tenant. 	<ul style="list-style-type: none"> • Inspector approval required

	<ul style="list-style-type: none"> ● Inspector approval required 	
--	---	--

* Specific eligible measures by funding source can be found in the appendix on the program measure lists.

Steam Boiler		
Category:	Heating and Cooling	
Examples*:	All sizes	
Description:	Replaces existing boiler. Includes all materials, permits, and labor to install, test and place unit in service. Distribution system must be evaluated for leaks.	
Existing Condition	EmP	MEAP
Age of Existing Equipment	10 years or older	N/A
Existing Efficiency	N/A	Steady State Efficiency is <69%
Existing Energy Usage	N/A	N/A
Existing Technical Specifications	N/A	N/A
Job Tier	<ul style="list-style-type: none"> ● Tier 1, if the new system does not exacerbate health and safety concerns ● Tier 2,3 	Crisis no heat cases and non-crisis cases
Other	<ul style="list-style-type: none"> ● Natural Gas system replacement in BGE territory only. ● No oil or propane system replacements. ● “Red-tagged” or inoperable system replacement is possible if current efficiency information is available. If the system repair or replacement provides a measure SIR of 1.1 and the total project SIR does not fall below 1.1, it can be completed as an energy-saving measure. Efficiency testing results must be available “pre-failure.” 	Any of the following conditions exists: <ul style="list-style-type: none"> ● Flue gas CO levels exceed BPI standards ● CO is evident in ambient air ● Health and safety of family is at risk ● No operable central heating system exists, however an existing distribution system exists that can be used for the new system ● Estimated repairs to the central system exceed 60% of the replacement costs and life expectancy is less than 5 years ● Distribution system must be evaluated for leaks
Measure	EmP	MEAP
Measure Level SIR	N/A	N/A
Work Specifications	5.3104.3; 5.3104.2	5.3104.3; 5.3104.2
Technical Specifications	<ul style="list-style-type: none"> ● Replacements must be a minimum of 82 AFUE 	<ul style="list-style-type: none"> ● Replacements must be a minimum of 82 AFUE
Documentation	<ul style="list-style-type: none"> ● Manual J load calculation ● Photos before and after 	<ul style="list-style-type: none"> ● Manual J load calculation ● Photos before and after
Other	<ul style="list-style-type: none"> ● 50% landlord contribution required if appliances are not owned by tenant. 	<ul style="list-style-type: none"> ● Inspector approval required

	<ul style="list-style-type: none">• Inspector approval required	
--	---	--

* Specific eligible measures by funding source can be found in the appendix on the program measure lists.

Clean and Tune - Furnace		
Category:	Heating and Cooling	
Examples*:	Clean and tune on gas furnace or gas boiler system	
Description:	Includes combustion efficiency and smoke tests before and after service, clean and vacuum system, inspect all control devices, test for gas leaks, clock gas meter, test manifold pressure, inspect for cracked heat exchanger, inspect electrical connections and safety devices, inspect chimney and smoke pipes and clean as necessary, inspect flue vent damper and draft controls, lubricate motor and moving parts, clean and test thermostat, replace air filter, place sticker on the unit indicating service details. If applicable, bleed radiators, clean and level sight glass.	
Existing Condition	EmP	MEAP
Age of Existing Equipment	N/A	N/A
Existing Efficiency	N/A	N/A
Existing Energy Usage	N/A	N/A
Existing Technical Specifications	CO test results 26 PPM or higher	N/A
Job Tier	1,2,3	N/A
Other	<ul style="list-style-type: none"> Gas systems in BGE territory may be C&T under ES. Gas systems in all other territories must be listed as H&S measure 	N/A
Measure	EmP	MEAP
Measure Level SIR	N/A	N/A
Work Specifications	5.3003	5.3003
Technical Specifications	N/A	N/A
Documentation	<ul style="list-style-type: none"> Pre and post combustion and CAZ testing Copy of combustion analysis uploaded to Hancock 	<ul style="list-style-type: none"> Pre and post combustion and CAZ testing Copy of combustion analysis uploaded to Hancock
Other	N/A	N/A

* Specific eligible measures by funding source can be found in the appendix on the program measure lists.

Clean and Tune - Heat Pump		
Category:	Heating and Cooling	
Examples*:	Clean and tune on fossil fuel, or electric system	
Description:	Includes inspection of electrical connections and refrigerant lines, vacuum indoor and outdoor coils and chemical clean as necessary, inspect and service all drains and condensate pump, check refrigerant level, test emergency heat system and unit defrost if equipped, inspect safety devices, ensure proper insulation of refrigerant lines, lubricate motor and moving parts, clean and test thermostat, replace air filter, place sticker on the unit indicating service details.	
Existing Condition	EmP	MEAP
Age of Existing Equipment	N/A	N/A
Existing Efficiency	N/A	N/A
Existing Energy Usage	N/A	N/A
Existing Technical Specifications	Heat pump is found to have a dirty evaporator coil or outdoor condenser, or loose fitting, dirty, or missing filter.	Heat pump is found to have a dirty evaporator coil or outdoor condenser, or loose fitting, dirty, or missing filter.
Job Tier	1,2,3	N/A
Other	<ul style="list-style-type: none"> Gas systems in BGE territory may be C&T under ES. Gas systems in all other territories must be listed as H&S 	N/A
Measure	EmP	MEAP
Measure Level SIR	N/A	N/A
Work Specifications	5.3003	5.3003
Technical Specifications	N/A	N/A
Documentation	<ul style="list-style-type: none"> Pre and post combustion and CAZ testing Copy of combustion analysis uploaded to Hancock 	<ul style="list-style-type: none"> Pre and post combustion and CAZ testing Copy of combustion analysis uploaded to Hancock
Other	N/A	N/A

* Specific eligible measures by funding source can be found in the appendix on the program measure lists.

Clean and Tune - Central AC		
Category:	Heating and Cooling	
Examples*:	Clean and tune on fossil fuel, or electric system	
Description:	Includes inspection of electrical connections and refrigerant lines, vacuum coils and chemical clean as necessary, inspect and service all drains and condensate pump, check refrigerant level, test unit defrost if equipped, inspect safety devices, ensure proper insulation of refrigerant lines, lubricate motor and moving parts, clean and test thermostat, replace air filter, place sticker on the unit indicating service details.	
Existing Condition	EmP	MEAP
Age of Existing Equipment	N/A	N/A
Existing Efficiency	N/A	N/A
Existing Energy Usage	N/A	N/A
Existing Technical Specifications	AC is found to have a dirty evaporator coil or outdoor condenser, or loose fitting, dirty, or missing filter.	AC is found to have a dirty evaporator coil or outdoor condenser, or loose fitting, dirty, or missing filter.
Job Tier	1,2,3	N/A
Other	<ul style="list-style-type: none"> Gas systems in BGE territory may be C&T under ES. Gas systems in all other territories must be listed as H&S 	N/A
Measure	EmP	MEAP
Measure Level SIR	N/A	N/A
Work Specifications	5.3003	5.3003
Technical Specifications	N/A	N/A
Documentation	<ul style="list-style-type: none"> Pre and post combustion and CAZ testing Copy of combustion analysis uploaded to Hancock 	<ul style="list-style-type: none"> Pre and post combustion and CAZ testing Copy of combustion analysis uploaded to Hancock
Other	N/A	N/A

* Specific eligible measures by funding source can be found in the appendix on the program measure lists.

Smart Thermostat	
Category:	Heating and Cooling
Examples*:	Smart Thermostats as defined by Energy Star criteria
Description:	Replacement must be installed, tested and placed in service. Owner/operator education required
Existing Condition	EmP
Age of Existing Equipment	N/A
Existing Efficiency	N/A
Existing Energy Usage	N/A
Existing Technical Specifications	<ul style="list-style-type: none"> Any analog or non-functional thermostat. Existing programmable thermostat can be replaced with smart thermostat.
Job Tier	1,2,3
Other	<ul style="list-style-type: none"> Tstat controlling Gas heat with no central AC: BGE territory only Tstat controlling other fossil fuel AND central AC is allowed.
Measure	EmP
Measure Level SIR	N/A
Work Specifications	5.3104.1; 5.3102.37; 5.3003.11;
Technical Specifications	<ul style="list-style-type: none"> Energy Star certified Minimum 1 year manufacturer warranty from date of install
Documentation	Photos before and after.
Other	N/A

* Specific eligible measures by funding source can be found in the appendix on the program measure lists.

8.3.1.5. DISTRIBUTION SYSTEMS

Duct Sealing	
Category:	Distribution Systems
Examples*:	Mastic application
Description:	Use mastic to seal all accessible joints, seams, connections. Perform system balancing, when required, using a "duct blasting" protocol or other acceptable means for measuring system distribution efficiency.
Existing Condition	EmP
Age of Existing Equipment	N/A
Existing Efficiency	N/A
Existing Energy Usage	N/A
Existing Technical Specifications	Gaps on duct connections are present
Job Tier	<ul style="list-style-type: none"> ● Tier 1: If no H&S concerns. ● Tiers 2,3
Other	<ul style="list-style-type: none"> ● Duct system with Gas heat and no central AC: BGE territory only ● Duct system with other fossil fuel AND central AC is allowed.
Measure	EmP
Measure Level SIR	N/A
Work Specifications	3.1602.1; 3.1602.8; 3.1602.12
Technical Specifications	Materials must meet ASTM standards
Documentation	Photos
Other	N/A

* Specific eligible measures by funding source can be found in the appendix on the program measure lists.

Duct Insulation	
Category:	Distribution Systems
Examples*:	Insulating flex duct or rigid ducts
Description:	For ducting in unconditioned spaces (attic and crawls), foil faced fiberglass. Tape all seams.
Existing Condition	EmP
Age of Existing Equipment	N/A
Existing Efficiency	N/A
Existing Energy Usage	N/A
Existing Technical Specifications	No existing insulation or existing but deteriorated and nominally ineffective
Job Tier	<ul style="list-style-type: none"> ● Tier 1: If no H&S concerns. ● Tiers 2,3
Other	<ul style="list-style-type: none"> ● Duct system with Gas heat and no central AC: BGE territory only ● Duct system with other fossil fuel AND central AC is allowed.
Measure	EmP
Measure Level SIR	N/A
Work Specifications	4.1601.1; 4.1601.2; 3.1601.1; 3.1602.2
Technical Specifications	<ul style="list-style-type: none"> ● R-6 or better ● Install in unconditioned spaces ● Materials must meet ASTM standards
Documentation	Photos before and after
Other	N/A

* Specific eligible measures by funding source can be found in the appendix on the program measure lists.

Boiler Pipe Insulation	
Category:	Distribution Systems
Examples*:	Insulation for hot water and steam heating system distribution
Description:	100% coverage of all pipes, mitered corners, seams sealed. Hot water boiler pipes to be insulated in unconditioned spaces only. Steam distribution systems must be insulated in unconditioned spaces and may be insulated even in conditioned spaces.
Existing Condition	EmP
Age of Existing Equipment	N/A
Existing Efficiency	N/A
Existing Energy Usage	N/A
Existing Technical Specifications	N/A
Job Tier	1,2,3
Other	On Natural Gas systems in BGE territory only
Measure	EmP
Measure Level SIR	N/A
Work Specifications	N/A
Technical Specifications	<ul style="list-style-type: none"> • Steam systems minimum R value of 12.7 • Hot water boilers minimum R value of 7 • Materials must meet ASTM standards
Documentation	Photos and description/justification in Hancock
Other	N/A

* Specific eligible measures by funding source can be found in the appendix on the program measure lists.

8.3.1.6. AIR SEALING

Blower Door Guided Air Sealing	
Category:	Infiltration
Examples*:	<ul style="list-style-type: none"> • Seal at window A/C units • Weather-strip all windows, doors, and access openings between heated and unheated areas • Install thresholds and/or door sweeps, repair broken windows • Caulk/seal door frames, window frames, fixed windows, building corners, along chimneys, areas where different materials meet, service entries, and other areas where infiltration and moisture can be stopped • Close off unused fireplaces (should be flagged and easily removable). • Seal all wall tops, by-passes and penetrations in the attic space(s). Required before insulating attics.
Description:	Must be performed on every Tier 2 and 3 dwelling unit unless the installation of this measure is not cost effective.
Requirements	EmP
Age of Existing Equipment	N/A
Existing Efficiency	N/A
Existing Energy Usage	N/A
Existing Technical Specifications	N/A
Job Tier	2,3
Other	N/A
Measure	EmP
Measure Level SIR	N/A
Work Specifications	3.1002; 3.1003; 3.1401; 3.1402; 3.1004; 3.1501; 3.1005
Technical Specifications	<ul style="list-style-type: none"> • UL rated materials for air sealing around flue pipes and other potentially hazardous areas • Materials must meet ASTM standards
Documentation	Photo documentation and descriptions in Hancock
Other	Attics may not be insulated until air sealing of the space(s) is completed

* Specific eligible measures by funding source can be found in the appendix on the program measure lists.

8.3.1.7. INSULATION

Floor Insulation	
Category:	Insulation / Floor
Examples*:	Crawl space ceiling, cantilevers and unconditioned basement ceilings
Description:	Floor insulation should be installed when practical in the joist spaces over unheated crawl spaces. Areas where furnaces are located are considered passively conditioned, should not be taken out of the conditioned space and will require perimeter insulation. Floor insulation over Basement areas is not an allowed practice unless the room is being completely taken out of the conditioned space.
Existing Condition	EmP
Age of Existing Equipment	N/A
Existing Efficiency	N/A
Existing Energy Usage	N/A
Existing Technical Specifications	N/A
Job Tier	2,3
Other	N/A
Measure	EmP
Measure Level SIR	N/A
Work Specifications	4.10; 4.11 ; 4.13 ; 4.14 ; 4.9901
Technical Specifications	<ul style="list-style-type: none"> ● Install to levels as required by climate zone ● Materials must meet ASTM standards
Documentation	Photo documentation and descriptions in Hancock
Other	Unconditioned crawl spaces and basements may not be insulated until air sealing of the space(s) are completed

* Specific eligible measures by funding source can be found in the appendix on the program measure lists.

Rim Joist Insulation	
Category:	Insulation / Wall
Examples*:	Code compliant foam board, 2 part foam for sills/rims/bands
Description:	Insulate and seal all band/rim joist areas between subfloor and foundation or top plate of wall below
Existing Condition	EmP
Age of Existing Equipment	N/A
Existing Efficiency	N/A
Existing Energy Usage	N/A
Existing Technical Specifications	N/A
Job Tier	2,3
Other	N/A
Measure	EmP
Measure Level SIR	N/A
Work Specifications	4.1401; 4.1301
Technical Specifications	Materials must meet ASTM standards
Documentation	Photo documentation in Hancock
Other	N/A

* Specific eligible measures by funding source can be found in the appendix on the program measure lists.

Unframed Wall / Perimeter Insulation	
Category:	Insulation / Wall
Examples*:	Crawl space walls, unfinished basement walls
Description:	Interior use of perimeter insulation may not be an acceptable alternative where basement areas are finished, where small children use these areas, or where moisture cannot be effectively controlled. Ventilation would not normally be used when the perimeter is being insulated.
Existing Condition	EmP
Age of Existing Equipment	N/A
Existing Efficiency	N/A
Existing Energy Usage	N/A
Existing Technical Specifications	N/A
Job Tier	2,3
Other	N/A
Measure	EmP
Measure Level SIR	N/A
Work Specifications	4.1402
Technical Specifications	Materials must meet ASTM standards
Documentation	Photo documentation in Hancock
Other	N/A

* Specific eligible measures by funding source can be found in the appendix on the program measure lists.

Exterior Wall Insulation	
Category:	Insulation / Wall
Examples*:	Cellulose dense pack
Description:	Where cost effective, install blown insulation into exterior wall cavities to achieve a "dense pack" when such a measure is deemed cost effective.
Existing Condition	EmP
Age of Existing Equipment	N/A
Existing Efficiency	N/A
Existing Energy Usage	N/A
Existing Technical Specifications	No existing wall insulation, verified by visual inspection or thermal imaging
Job Tier	2,3
Other	N/A
Measure	EmP
Measure Level SIR	N/A
Work Specifications	4.1101; 4.1103
Technical Specifications	<ul style="list-style-type: none"> • Install per mfr instructions; achieve 3.5 lbs/cubic foot with complete coverage • Materials must meet ASTM standards
Documentation	Photo documentation in Hancock
Other	N/A

* Specific eligible measures by funding source can be found in the appendix on the program measure lists.

Knee Wall Insulation and Sheathing	
Category:	Insulation / Attic
Examples*:	Knee walls in attics
Description:	Where cost effective, Install insulation in attic cavities created by knee wall construction. The result of installation must create insulation coverage on all surfaces between conditioned and unconditioned space. Knee wall bottom cavities and the bottoms of the sloped ceiling areas shall be insulated with rigid insulation. An effective/approved air barrier shall be added after insulation is installed
Existing Condition	EmP
Age of Existing Equipment	N/A
Existing Efficiency	N/A
Existing Energy Usage	N/A
Existing Technical Specifications	N/A
Job Tier	2,3
Other	N/A
Measure	EmP
Measure Level SIR	N/A
Work Specifications	4.1004
Technical Specifications	Materials must meet ASTM standards
Documentation	Photo documentation in Hancock
Other	All bypasses and penetrations shall be sealed prior to installing insulation

* Specific eligible measures by funding source can be found in the appendix on the program measure lists.

Attic Access Treatment	
Category:	Attic
Examples*:	Attic hatch insulation / seal, attic stair cover, knee wall access insulation/seal
Description:	Includes insulation, weatherstripping, caulking trim, and mechanical fastening.
Existing Condition	EmP
Age of Existing Equipment	N/A
Existing Efficiency	N/A
Existing Energy Usage	N/A
Existing Technical Specifications	N/A
Job Tier	2,3
Other	N/A
Measure	EmP
Measure Level SIR	N/A
Work Specifications	4.1006
Technical Specifications	<ul style="list-style-type: none"> • Materials installed must meet program standards. Insulation to the access must be equal to or greater than the surrounding insulation; includes knee wall doors/accesses, walk up stairs and other attic accesses. • Materials must meet ASTM standards
Documentation	Photo documentation and descriptions in Hancock
Other	N/A

* Specific eligible measures by funding source can be found in the appendix on the program measure lists.

Attic Insulation	
Category:	Insulation / Attic
Examples*:	Batts, or blown insulation
Description:	Install approved insulation materials in ceiling (attic) areas where deemed cost effective. Insulation shall be installed per climate zone, BPI and program requirements.
Existing Condition	EmP
Age of Existing Equipment	N/A
Existing Efficiency	N/A
Existing Energy Usage	N/A
Existing Technical Specifications	N/A
Job Tier	2,3
Other	N/A
Measure	EmP
Measure Level SIR	N/A
Work Specifications	4.10; 4.11 ; 4.13 ; 4.14 ; 4.9901
Technical Specifications	<ul style="list-style-type: none"> • Install to SWS, local code and program standards as required by climate zone • Materials must meet ASTM standards.
Documentation	Photo documentation and descriptions in Hancock
Other	Attic space(s) may not be insulated until air sealing of the space(s) are completed

* Specific eligible measures by funding source can be found in the appendix on the program measure lists.

Roof Insulation	
Category:	Insulation / Attic
Examples*:	Flat roof cavity, sloped ceiling
Description:	Where needed and cost effective, install insulation materials to the roof area of the dwelling. Materials include batt, loose fill, dense packing (3.5 lbs/cubic foot) and rigid insulation materials.
Existing Condition	EmP
Age of Existing Equipment	N/A
Existing Efficiency	N/A
Existing Energy Usage	N/A
Existing Technical Specifications	N/A
Job Tier	2,3
Other	N/A
Measure	EmP
Measure Level SIR	N/A
Work Specifications	4.1003;
Technical Specifications	<ul style="list-style-type: none"> • Install to SWS, local code and program standards as required by climate zone • Materials must meet ASTM standards
Documentation	Photo documentation and descriptions in Hancock
Other	Attic space(s) may not be insulated until air sealing of the space(s) are completed

* Specific eligible measures by funding source can be found in the appendix on the program measure lists.

8.3.1.8. MOBILE HOME MEASURES

Mobile Home Belly Insulation	
Category:	Insulation / Floor
Examples*:	Blown fiberglass or batt insulation to the underside of mobile homes
Description:	Includes labor and appropriate loose fill or dense pack fiberglass materials to 3.5 lbs/cubic foot (for dense packing only)
Existing Condition	EmP
Age of Existing Equipment	N/A
Existing Efficiency	N/A
Existing Energy Usage	N/A
Existing Technical Specifications	N/A
Job Tier	2.3
Other	N/A
Measure	EmP
Measure Level SIR	N/A
Work Specifications	4.1303; 4.1302;
Technical Specifications	Materials must meet ASTM standards
Documentation	Photos in Hancock
Other	Belly space(s) may not be insulated until interior penetration shave been sealed

* Specific eligible measures by funding source can be found in the appendix on the program measure lists.

Mobile Home Roof Insulation	
Category:	Insulation / Attic
Examples*:	Blown fiberglass and cellulose for mobile and manufactured homes
Description:	Where needed, insulate mobile/manufactured home attic where deemed cost effective. Acceptable techniques include edge lift method, gable end removal, through the roof and interior drill and fill.
Existing Condition	EmP
Age of Existing Equipment	N/A
Existing Efficiency	N/A
Existing Energy Usage	N/A
Existing Technical Specifications	N/A
Job Tier	2,3
Other	N/A
Measure	EmP
Measure Level SIR	N/A
Work Specifications	4.1003.9; 4.1088.6
Technical Specifications	Materials must meet ASTM standards
Documentation	Photos in Hancock
Other	Verify coverage with thermal camera and add images to Hancock

* Specific eligible measures by funding source can be found in the appendix on the program measure lists.

8.3.2. HEALTH & SAFETY

Health and Safety (H/S) issues are a critical component to be included in the auditing protocol used by DHCD’s weatherization programs. DHCD regularly assesses new health and safety regulations and training to ensure that weatherization activities do not cause or exacerbate health and safety problems for workers and/or occupants.

Health and safety funds are allowed to be expended by subgrantees where direct weatherization activities occur. The Department of Housing and Community Development (DHCD) budgets health and safety costs as a separate category from Program Operations and, thereby, excludes such costs from the Savings to Investment Ratio (SIR) and the average per-unit cost calculation.

Allowable energy efficiency-related health and safety actions are those actions necessary to maintaining the physical well-being of both the occupants and/or weatherization workers where:

- 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.

Health and safety measures are allowed to be conducted only where energy efficiency measures are identified for installation. We need to ask:

- What must we do within reasonable costs to get the home to a point we can go forward with weatherizing, where the weatherization work will be lasting and effective?
- What must we do to ensure that the weatherization work we conduct does not create a health or safety problem for the occupant?

Not all observed health and safety conditions need to be corrected in order to proceed with weatherization; however, the client will still be notified of any observed conditions and if the condition is not corrected, it should be clearly explained in the client's electronic file in Hancock how the condition is not related to the planned weatherization work.

When deferral or denial becomes necessary due to Health and Safety reasons, the standard procedures for deferrals / Tier 1 jobs, or denials, should be followed and accompanied with photo and written documentation.

DOE DOE WAP Health and Safety measures are grouped by category and defined in the State Plan as part of the Master File. In this section, health and safety is addressed in accordance with 10 CFR 440.16(h), 440.18(d)(15), 440.21(5), and DOE's most recent Health and Safety guidance, WPN 17-7.

The following categories are considered incidental repairs and can never be charged to the H&S category:

- Drainage(gutters, downspouts, extensions, flashing, sump pumps, landscape, etc.)
- Electrical, other than Knob-and-Tube Wiring
- Electrical, Knob-and-Tube Wiring
- Building structure and roofing

DHCD sets health and safety expenditure limits using historical data pulled from the Hancock Energy Software. The current approved H&S expenditure average is 20% of the per unit cost for Program Operations. This percentage will vary based on actual expenditures and will be averaged across all units.

Subgrantees are required to maintain their budget limitation, exceeding budget limits shall result in disallowed costs. DHCD requires subgrantees to track H&S costs and related measures in order to support future budget requests.

EmP Refer to the EmPOWER Price List and specific [measure requirements](#) for allowable health and safety measures. Note that not all health & safety conditions listed here are classified as Health & safety measures, but instead may be deemed [incidental repairs](#).

Health and safety spending is capped at \$1000 per job and included in the hard caps for total job budget. Refer to [Tiered Job descriptions](#) for additional detail.

MEAP In this section, health and safety is addressed in accordance with 10 CFR 440.16(h), 440.18(d)(15), 440.21(5), and DOE's most recent Health and Safety guidance, WPN 17-7.

The following categories are considered incidental repairs and can never be charged to the H&S category:

- Drainage(gutters, downspouts, extensions, flashing, sump pumps, landscape, etc.)
- Electrical, other than Knob-and-Tube Wiring
- Electrical, Knob-and-Tube Wiring
- Building structure and roofing

During crisis season, when health and safety measures are required to facilitate the installation of a heating system, the H&S expenditures cannot exceed 50% of the cost of the heating equipment.

When MEAP funding is utilized for weatherization purposes, the current approved H&S expenditure average is 20% of the per unit cost for Program Operations.

RGGI Expenditures up to an average of \$1,000 per residential unit on building envelope improvements and building repairs to address health and safety is allowed. In no case shall health and safety repair costs exceed the total cost of weatherization.

8.3.2.1. AIR CONDITIONING AND HEATING SYSTEMS

Primary space conditioning system repair, replacement, or installation is allowed when it qualifies as an ECM and meets all other measure requirements. If the ECM measure requirements are not attainable, then other funds may be leveraged.

When a space conditioning system does not qualify as an ECM, the following conditions must be met before the unit can be replaced or repaired with H&S funds:

- Red tagged, inoperable or nonexistent primary heating systems replacement, repair or installation is allowed due to Maryland's climate conditions. According to recent NOAA data, Cooling Degree Days (CDD) for Baltimore Washington International (BWI) Airport ranged from 1084 CDD in 2014 to 1742 CDD in 2010.

- A Manual J is required when installing or replacing a heating or cooling appliance.

Replacement or installation of secondary units is not allowed. Unsafe units must be repaired, removed, or rendered inoperable, or deferral is required.

Testing Protocol:

- Ensure primary systems are present, operable, and performing correctly. Check audit to determine if the system can be installed as an ECM prior to replacement as an H&S measure.
- Determine and document presence of “at-risk” current occupants when installing air-conditioning as a H&S measure.
- On combustion equipment, inspect chimney and flue and test for CAZ depressurization.
- For solid fuel appliances look for visual evidence of soot on the walls, mantel or ceiling or creosote staining near the flue pipe.

Client Education:

- When deferral is necessary, complete the deferral form and upload it to the client file in the energy software.
- Discuss appropriate use and maintenance of units.
- Provide all paperwork and manuals for any installed equipment.
- Discuss and provide information on proper disposal of bulk fuel tanks when not removed as part of the weatherization work.
- Where combustion equipment is present, provide safety information including how to recognize depressurization.

DOE

If unsafe primary units can't be repaired, replaced, removed, or rendered inoperable, the home must be deferred.

Furnaces and/or air conditioning system replacement, repair or installation that do not qualify as ECM will be considered in homes occupied by [at risk occupants](#) when climate conditions are warranted and when other funds are leveraged.

An at-risk occupant is a household member with a medical condition documented by a physician that requires air conditioning. No new installation of air conditioning systems is permitted where an existing air conditioning system does not exist. Medical documentation must be no older than 180 days. Air conditioning may be repaired when practical and costs are less than replacement.

EmP

If unsafe primary units can't be repaired, replaced, removed, or rendered inoperable, the home can be treated as a Tier 1 job.

MEAP

Inefficient systems may be replaced if they meet the guidelines specified in section 5.2.6.

8.3.2.2. AIR POLLUTANTS

Formaldehyde vapors may be slowly released by some new carpets, Oriented Strand Board (OSB), plywood, etc. VOCs are also emitted by some household cleaning agents. Removal of pollutants is allowed and is required if they pose a risk to workers. If pollutants pose a risk to workers and removal isn't possible or allowed by the client, the unit must be deferred. Documentation for deferral must include notes of the inspections and photographic evidence to support the inspections.

Testing:

- Visual and sensory inspection is the primary mechanism for determining the hazards of VOCs and other air pollutants.

Client Education:

- Inform client in writing of observed hazardous condition and associated risks. Provide client written materials on safety issues and proper disposal of household pollutants.

8.3.2.3. ASBESTOS IN SIDING, WALLS, AND CEILINGS

When it is suspected that asbestos containing material is identified, unless testing proves otherwise, assume it contains asbestos and take precautionary measures. Encapsulation of asbestos is allowed by an AHERA asbestos control professional and should be conducted prior to blower door testing.

Removal of siding is allowed to perform energy conservation measures. All precautions must be taken not to damage siding. Never cut, drill, or sand suspected asbestos containing material. General abatement of asbestos siding or replacement with new siding is not an allowable health and safety measure.

Testing:

- Visually inspect exterior wall surfaces and sub-surfaces, floors, walls, and ceilings for suspected ACM prior to any work (including drilling or cutting).
- Materials containing or suspected of containing asbestos identified during the evaluation must be brought to the attention of the owner/occupant.
- The condition of the asbestos must be assessed and occupants advised not to disturb the material.
- Testing is only allowed by a certified AHERA asbestos control professional.

Client Education:

- Client must be informed in writing that suspected asbestos is present and what precautions (such as not to disturb material containing asbestos) will be taken to ensure the occupants and workers safety.
- When asbestos is the cause for deferral, and the client addresses the issue, the client must provide documentation that the asbestos removal or encapsulation was conducted by a certified professional before the home is eligible for weatherization.
- If suspected asbestos is present, the client must be provided U.S. EPA's "Learn About Asbestos" and "Asbestos, Protect Your Family". The documents can be found at

<http://www2.epa.gov/asbestos>.

DOE Every crew member must have taken the required “Asbestos Awareness” class to be able to identify suspected asbestos materials so that they are protected by inadvertent exposure to this hazard. Major asbestos problems should be referred to the appropriate state agency and/or the Environmental Protection Agency (EPA). AHERA certification is required to conduct testing.

8.3.2.4. ASBESTOS IN VERMICULITE

When vermiculite is present, unless testing performed by an AHERA certified tester proves otherwise, assume it contains asbestos and take precautionary measures. Use proper respiratory protection while in areas containing vermiculite. Do not perform a blower door test if it will disturb the vermiculite. Partial weatherization is not an option when vermiculite is present.

When friable ACM’s are suspected (meaning the material can be crumbled, pulverized, or reduced to powder by the pressure of an ordinary human hand), assume they contain asbestos and take precautionary measures such as not disturbing the materials and wearing respirators in the area.

Asbestos may be encapsulated by an AHERA certified professional but this may be cost prohibitive. Removal is not allowed.

Client Education:

- Client must be informed in writing that suspected asbestos is present and what precautions (such as not to disturb material containing asbestos) will be taken to ensure the occupants and workers safety.
- When asbestos is the cause for deferral, and the client addresses the issue, the client must provide documentation that the asbestos removal or encapsulation was conducted by a certified professional before the home is eligible for weatherization.
- If suspected asbestos is present, the client must be provided U.S. EPA’s “Learn About Asbestos” and “Asbestos, Protect Your Family”. The documents can be found at <http://www2.epa.gov/asbestos>.

DOE In cases where encapsulation is not cost-effective, a home should be deferred.
Every crew member must have taken the required “Asbestos Awareness” class to be able to identify suspected asbestos materials so that they are protected by inadvertent exposure to this hazard. Major asbestos problems should be referred to the appropriate state agency and/or the Environmental Protection Agency (EPA). AHERA certification is required to conduct testing.

EmP In cases where encapsulation is not cost-effective, a home should be considered for a Tier 1

job.

MEAP In cases where encapsulation is not cost-effective, a home should be deferred.

8.3.2.5. ASBESTOS ON PIPES, HVAC, OR OTHER SMALL SURFACES

When friable ACM's are suspected (meaning the material can be crumbled, pulverized, or reduced to powder by the pressure of an ordinary human hand), assume they contain asbestos and take precautionary measures such as not disturbing the materials and wearing respirators in the area. Encapsulation of asbestos is allowed by an AHERA asbestos control professional and should be conducted prior to blower door testing. Removal is not allowed. Only costs directly associated with testing and encapsulation may be charged. When deferral is necessary due to asbestos, occupant must provide documentation that a certified professional performed the remediation before work continues.

Testing:

- Inspect pipe and other coverings for asbestos.
- Assess the condition of the asbestos and inform occupants not to disturb the material.

Client Education:

- Client must be informed in writing that suspected asbestos is present and what precautions (such as not to disturb material containing asbestos) will be taken to ensure the occupants and workers safety.
- When asbestos is the cause for deferral, and the client addresses the issue, the client must provide documentation that the asbestos removal or encapsulation was conducted by a certified professional before the home is eligible for weatherization.
- If suspected asbestos is present, the client must be provided U.S. EPA's "Learn About Asbestos" and "Asbestos, Protect Your Family". The documents can be found at <http://www2.epa.gov/asbestos>.

DOE In cases where encapsulation is not cost-effective, a home should be deferred.

Every crew member must have taken the required "Asbestos Awareness" class to be able to identify suspected asbestos materials so that they are protected by inadvertent exposure to this hazard. Major asbestos problems should be referred to the appropriate state agency and/or the Environmental Protection Agency (EPA). AHERA certification is required to conduct testing.

EmP In cases where encapsulation is not cost-effective, a home should be considered for a Tier 1 job.

MEAP In cases where encapsulation is not cost-effective, a home should be deferred.

8.3.2.6. BIOLOGICAL AND UNSANITARY CONDITIONS

Remediation of conditions that may lead to or promote biological concerns and unsanitary conditions is allowed. Small occurrences (less than 10 total square feet) may be addressed using program funds during the normal course of weatherization activities. Work must be approved prior to starting. Approval will be granted on a case by case basis. Use of weatherization funds to address bacteria and viruses is not allowed however, program workers frequently encounter these conditions.

The decision on next steps to remediate these issues begins with the certified Auditor and the determination if a remediation specialist, or other hazardous materials removal specialist specific to the issue, should be involved.

Other considerations include identifying the cause of the issue ([moisture](#), etc.). Program funds may be used if the source of these conditions is identified and can be resolved to allow effective weatherization work and/or to assure the immediate or future health of workers and clients. Caution should be taken when selecting air tightness limits for dwellings with these problems.

Since these conditions are often related to moisture, the Auditor should assess moisture conditions as a part of the initial audit procedure and treat them as part of the weatherization work. If necessary, weatherization services may need to be delayed until the problem can be referred to another agency that can take remedial action. In cases where a known biological agent is present and may create a serious risk to occupants or weatherization crews/contractors, the home should be deferred (Tier 1 for EmPOWER) and the homeowner immediately alerted to the risk. The auditor must document the client file by uploading a write-up in the energy software as well as photographic evidence supporting the visual inspection.

Client Education:

- Inform client of observed hazardous conditions and that they must be corrected by a certified professional and signed clearance notification must be provided to the agency prior to weatherization continuing.
- Non-hazardous conditions can be corrected by the client.

DOE If non-hazardous conditions are corrected by the client within 30 days, weatherization can continue.

MEAP Deferral may be necessary in cases where a known agent is present in a home that may create a serious risk to occupants or workers. If non-hazardous conditions are corrected by the client within 30 days, work can continue.

8.3.2.7. BUILDING STRUCTURE AND ROOFING

While conducting the initial audit, the building structure shall be inspected for structural integrity.

Minor repairs necessary to effectively perform or preserve weatherization materials/measures are allowed. Examples of these include sealing minor roof leaks to preserve new attic insulation and repairing water damaged flooring as part of replacing a water heater. Minor repairs shall not include cosmetic applications, such as replacing a floor covering such as carpet or linoleum.

Dwellings whose structural integrity is in question are beyond the scope of the energy efficiency programs and should be referred to appropriate agencies with funds that deliver these types of services. Weatherization services may need to be delayed or deferred until the dwelling can be made safe for crews/contractors and occupants.

Client Education:

- Provide information in writing describing conditions that must be met in order for weatherization to commence and follow standard deferral procedures.

DOE If the building structure or its mechanical systems, including electrical and plumbing, are in such a state of disrepair that failure is imminent and the conditions cannot be resolved cost-effectively, the home must be deferred. Documentation for deferral must include notes of the visual inspections, diagrams of the visual inspection, photographic evidence to support the visual inspection, and costs estimates for repairs.

EmP If the building structure or its mechanical systems, including electrical and plumbing, are in such a state of disrepair that failure is imminent and the conditions cannot be resolved cost-effectively, the home must be denied and cannot receive any measures. Documentation for denial must include notes of the visual inspections, diagrams of the visual inspection, photographic evidence to support the visual inspection, and costs estimates for repairs.

MEAP If the building structure or its mechanical systems, including electrical and plumbing, are in such a state of disrepair that failure is imminent and the conditions cannot be resolved cost-effectively, the home must be deferred. Documentation for deferral must include notes of the visual inspections, diagrams of the visual inspection, photographic evidence to support the visual inspection, and costs estimates for repairs.

8.3.2.8. CODE COMPLIANCE

State and Local codes must be followed while installing weatherization measures. These vary by

jurisdiction and it is the responsibility of each Network Partner to know what the codes are in each of the areas they work, as well as what permits and licenses are required in each of the areas they work.

Correction of pre-existing code compliance issues is not an allowable cost unless triggered by weatherization measures being installed in a specific room or area of the home. When correction of a pre-existing code compliance issue is triggered and paid for with program funds, cite specific code requirements in the client file in the energy software.

Condemned properties and properties where “red tagged” health and safety conditions exist that cannot be corrected under this guidance should be deferred (denied for EmPOWER). When code issues lead to deferral / denial, cite specific code requirements in the client file in the energy software. Documentation must include notes of the visual inspections, diagrams of the visual inspection, and photographic evidence to support the visual inspection.

Client Education:

- Inform client of observed code compliance issues in writing when it results in a deferral / denial.

DOE Workers must be qualified and adequately trained according to state and local codes specific to the work being conducted (electrical, plumbing, etc.).

MEAP Workers must be qualified and adequately trained according to state and local codes specific to the work being conducted (electrical, plumbing, etc.). “Red tagged” HVAC systems and water heaters may be replaced if no other safety concerns exist.

8.3.2.9. COMBUSTION GASES

Proper venting to the outside for combustion appliances, including gas dryers and refrigerators, furnaces, vented space heaters and water heaters is required. Correction of venting is allowed when testing indicates a problem. Check the energy model / cost-effectiveness to determine if the appliance can be justified as an ECM prior to replacement as an H&S measure. If replacing as H&S, document comparison of costs of replacement vs. repair by uploading it into the client file in the energy software.

When dangerous CO levels are present, the worker is required to contract a licensed service contractor to visit the home and eliminate the health and safety hazard. Reference the field guide for additional information.

Testing:

Combustion safety testing is required when combustion appliances are present. A complete mechanical systems assessment is required to be completed on every home. The procedure must include:

- Testing naturally drafting appliances 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).
- Visual and diagnostic inspection of the venting of combustion appliances and confirming

adequate clearances.

Client Education:

- Client must be informed of safety hazards of CO including the importance of using exhaust ventilation when cooking and keeping burners clean to limit the production of CO.
- The agency must provide either the U.S. EPA document “Protect Your Family and Yourself from Carbon Monoxide Poisoning” located at www.epa.gov/iaq/pdfs/co_factsheet_en.pdf, or the Center for Disease Control’s “What is Carbon Monoxide?” located at www.cdc.gov/co/pdfs/faqs.pdf, or both.

DOE

Further guidance on appliance specific-information is referenced in WPN 17-7, Attachment A.

8.3.2.10. ELECTRICAL

Minor electrical repairs are allowed where health or safety of the occupant(s) may be at risk.

Upgrades and repairs are allowed when necessary to perform specific weatherization measures as incidental repairs. DHCD prohibits installing insulation over knob-and-tube wiring. Prior to insulating around Knob and Tube wiring, cost effectiveness for removal must be evaluated or barriers must be installed to keep insulation at least three inches from the Knob and Tube.

Aluminum wiring should be thoroughly inspected before any insulation work is done. If aluminum wiring is found to be active and in the areas to be insulated, no insulation should be added. When electrical repairs within the scope of the program are required, the typical standard of remedy shall be to subcontract the repair work to a licensed electrician. All appropriate procurement procedures shall be followed when subcontracting.

Testing:

- Licensed electrician shall perform visual inspection, as well as voltage drop and voltage detection testing.

Client Education:

- Provide client information on overloading circuits and electrical safety and risks.

8.3.2.11. FUEL LEAKS

When a minor gas leak is found on the utility side of service, the utility service must be contacted before work may proceed. Notify utilities and temporarily halt work when leaks are discovered that are the responsibility of the utility to address. Minor repairs necessary to effectively perform or preserve weatherization materials/measures are allowed where it has been determined that the fuel leak is the responsibility of the client.

Testing:

- Exposed gas lines should be tested for fuel leaks from utility coupling into, and throughout, the home.
- A sensory inspection should also be conducted on bulk fuels to determine if leaks exist.

Client Education:

- Inform clients in writing if fuel leaks are detected.

8.3.2.12. GAS OVENS AND RANGES

When testing indicates a problem, agencies may perform standard maintenance on, or repair, gas cooktops and ovens. Replacement is not allowed.

Testing:

- Test gas oven for CO.
- Inspect cooking burners and ovens for operability and flame quality

Client Education:

- Inform clients of the importance of using exhaust ventilation when cooking and the importance of keeping burners clean to limit the production of CO.

8.3.2.13. HAZARDOUS MATERIAL DISPOSAL

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. The replacement of refrigerators, air conditioners and any other appliances containing refrigerant requires agencies to follow the Clean Air Act 1990, section 608, as amended by 40 CFR 82, 5/14/93. Document proper disposal requirements in contract language with responsible party.

Client Education:

- Inform the client in writing of hazards associated with hazardous waste materials being generated/handled in the home. Provide EPA Refrigerant Disposal Brochure.

8.3.2.14. INJURY PREVENTION

Workers should inspect for dangers that would prevent weatherization and take all reasonable precautions against performing work on homes that will subject workers or occupants to health and safety risks. Porch or stair repairs that would be required to make a home safe for weatherization workers are not an allowable measure. Such situations are considered to be beyond the scope of the energy efficiency programs.

Client Education:

- The client must be informed in writing of any hazards and the associated risks that may have been observed.

8.3.2.15. LEAD BASED PAINT

DHCD requires that weatherization crews install measures in a lead safe manner in accordance with the SWS and Environmental Protection Agency (EPA) protocols and that DHCD monitors and inspectors verify that crews are using lead safe work practices in pre-1978 housing. Deferral is required when the extent and condition of lead-based paint in the house would potentially create further H&S hazards or the repair would exceed program allowances. Only those costs directly associated with the testing and lead safe practices for surfaces directly disturbed during weatherization activities are allowed. Job site set up and cleaning verification is required by a Certified Renovator.

Testing:

- In all pre-1978 homes, crews/contractors must assess the physical condition of the home prior to conducting an audit. DHCD recommends assuming that lead paint may be present in any house built prior to 1978 and to follow the proper SWS, EPA protocols, and OSHA regulations in all pre-1978 homes.
- Testing to determine the presence of lead in paint that will be disturbed by measure installation is allowed per RRP requirements.
- Testing methods must be economically feasible and justified.

Client Education:

- Client must be informed of the hazards of lead paint.
- Each affected family must be provided with the EPA booklet "The Lead-Safe Certified Guide to Renovate Right" prior to the start of work. Have the client sign and date the confirmation of receipt of the lead pamphlet and upload it in the client file in the energy software. The "Renovate Right" document can be found at www.epa.gov/sites/production/files/documents/renovaterightbrochure.pdf.

8.3.2.16. MOLD AND MOISTURE

Minor water damage repairs that can be addressed by weatherization workers and source control (correction of moisture and mold creating conditions) are allowed 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. Suspected mold of individual areas less than or equal to 10 square feet are considered minor and weatherization can continue as long as adequate ventilation or dehumidification can be provided and the homeowner is instructed in cleaning the area. In cases where mold-like substances have been detected, assessors must document the square footage of the area affected.

Where severe mold and moisture issues cannot be addressed, deferral is required. 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.

Testing:

- Visual assessment is required and diagnostics such as moisture meters are recommended pre and prior to final inspection.
- The assessment shall assure existing mold-like conditions are noted, documented and disclosed to the client; and, shall assure existing building envelope conditions do not contribute to mold-like growth when weatherization measures are applied.
- Mold-like substance assessment means a visual assessment combined with certain allowable diagnostics. It does not mean testing for mold. Program funds may not be used to test for mold.

Client Education:

- Client must be provided written notification and disclaimer on mold and moisture awareness.
- The client must be provided the US EPA's "A Brief Guide to Mold and Moisture and Your Home" which includes information on the importance of cleaning and maintaining drainage systems and proper landscape design and the impact on site drainage and moisture control. The document can be found at www.epa.gov/mold/pdfs/moldguide.pdf.

DOE

Weatherization workers at all levels are required to take a mold awareness class.

8.3.2.17. PESTS

Pest removal is allowed only where infestation would prevent weatherization, poses a health and safety concern for workers, and can be managed within H&S funding parameters. If removal is a viable and cost-effective option, take the necessary steps to remove the pest infestation problem so that the weatherization work can proceed. Screening of windows and points of access and incorporating pest exclusion into air sealing practices to prevent intrusion is allowed.

If removal is not a viable and cost-effective option or significant health and safety risks exist, defer the weatherization work and provide client with appropriate referral information. When deferral is necessary, the client file must also include cost estimates for the removal of the pests from a pest removal specialist.

Client Education:

- Client must be informed in writing of observed condition and associated risks.

8.3.2.18. RADON

In homes where radon may be present, work scope should include precautionary measures based on "EPA Healthy Indoor Environment Protocols" for Home Energy Upgrades, to reduce the possibility of making radon issues worse.

Whenever site conditions permit, cover exposed dirt floors within the pressure/thermal boundary with 6 mil (or greater) polyethylene sheeting, lapped at least 12" and sealed with appropriate sealant at all

seams, walls and penetrations. 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.

Where there is a previously identified radon problem, work that would exacerbate this problem is not allowed. Neither radon testing nor radon mitigation is an allowable cost. Major radon problems should be referred to the appropriate local environmental organization or agency for mitigation or abatement.

Client Education:

- Client must be informed of the hazards of radon and provided the EPA's "A Citizens Guide to Radon". This document can be found at www.epa.gov/radon/pdfs/citizensguide.pdf.

DOE

Clients must sign and informed consent form prior to receiving weatherization services. This form must be uploaded in the client file in the energy software. The consent form includes:

- Information from the results of the IAP Study that there is a small risk of increasing radon levels when building tightness is improved.
- A list of precautionary measures WAP will install based on EPA Healthy Indoor Environment Protocols;
- Some of the benefits of Weatherization including energy savings, energy cost savings, improved home comfort, and increased safety, and
- Confirmation that EPA's "A Citizens Guide to Radon" was received and radon related risks discussed with the client.

Auditors, assessors and inspectors must have knowledge of radon, what it is and how it occurs, including what factors may make radon worse, and precautionary measures that may be helpful. Workers must be trained in proper vapor retarder installation. A zonal map can be located at www.epa.gov/radon/pdfs/zonemapcolor.pdf

8.3.2.19. SAFETY DEVICES

Installation of smoke alarms is allowed where detectors are not present or are inoperable. There must be one smoke alarm per floor. Replacement of operable smoke alarms is not an allowable cost.

Installation of CO detectors is required to comply with ASHRAE 62.2. There must be one CO detector per floor. Replacement of operable CO detectors is not an allowable cost.

Testing:

- Check existing alarms for operation.
- Also verify operation of newly installed alarms

Client Education:

- Client must be provided with verbal and written information on use of devices installed.

DOE

Local code compliance is required when installing or replacing smoke alarms.

Providing fire extinguishers is allowed only when solid fuels (such as wood) are present.

8.3.2.20. OCCUPANT HEALTH AND SAFETY

Agencies should be aware that some individuals' health problems could be exacerbated by weatherization activities. During the initial visit to the home, Energy Auditors are required to discuss with the homeowner the work that will be done during the audit and during installation, including detail regarding materials and installation procedures, and potential impacts on the occupant's health.

The auditor must allow the occupant to identify any preexisting health conditions or concerns that could be exacerbated by the audit or work. Occupant revealed health concerns or conditions must be noted on the audit form as necessary to direct installation staff to isolate work or use alternate methods.

Health conditions will not preclude clients from receiving weatherization if reasonable accommodations can eliminate the issue. The Energy Auditor must plan to address any preexisting health conditions or concerns through isolation of work tasks, or if the occupant determines that the weatherization work will cause undue stress on an existing condition, the house will be deferred.

Client Education:

- Client will be informed in writing of any known risks.
- Agency should provide client with point of contact information in writing so client can inform of any issues.

8.3.2.21. VENTILATION AND INDOOR AIR QUALITY

DHCD has fully implemented the requirements of ASHRAE 62.2-2016. Ventilation is only required if ASHRAE 62.2 calculations indicate added ventilation. In addition, ASHRAE 62.2 addresses dryer venting, CO alarm, and air sealing to isolate attached garages requirements. Existing fans and blower systems should be updated if not adequate. Take actions to prevent zonal pressure differences greater than 3 pascals across closed doors.

Clients cannot refuse mechanical ventilation. Subgrantees who install ventilation must educate the clients on effective use of the exhaust ventilation equipment by:

- Leaving owner's manual with client
- Demonstrating how to use the exhaust fans.
- Providing client education information on ventilation systems installed.
- Providing client education on proper operation and maintenance including location of switch and cleaning instruction.
- Include disclaimer that ASHRAE 622 does not account for high polluting sources or guarantee indoor air quality.

8.3.2.22. WINDOW AND DOOR REPLACEMENT

Replacement, repair, or installation is not an allowable H&S cost.

8.3.2.23. WORKER SAFETY

Network Partners must follow OSHA standards and Safety Data Sheets (SDS) and take precautions to ensure the H/S of themselves and other workers. SDS must be posted wherever workers may be exposed to hazardous materials. OSHA's Hazard Communication Standard is designed to ensure that all hazardous chemicals in the workplace and on worksites are identified, catalogued and labeled, and that information about the hazards are communicated to weatherization workers along with training on steps the workers can take to protect themselves.

DHCD will require each subgrantee to produce a Hazard Communication Plan (HCP) that is specific to their workplace and materials used. The HCP must be shared with weatherization workers through comprehensive training. The HCP must remain accessible. Subgrantees are advised to maintain copies in the workplace in an accessible location as well as in the vehicles used for weatherization services for access at work sites. The HCP must be reviewed and updated annually.

DHCD monitors and inspectors will verify that subgrantees, crews and contractors follow safe work practices.

DOE	<p>DHCD requires each subgrantee to produce a Hazard Communication Plan (HCP) that is specific to their workplace and materials used. The HCP must be shared with weatherization workers through comprehensive training. The HCP must remain accessible. Subgrantees are advised to maintain copies in the workplace in an accessible location as well as in the vehicles used for weatherization services for access at work sites. The HCP must be reviewed and updated annually.</p> <p>DHCD monitors and inspectors will verify that subgrantees, crews and contractors follow safe work practices.</p>
------------	---

8.3.3. INCIDENTAL REPAIRS

Incidental Repair Measures (IRM) include materials and installation which are performed because they are deemed necessary for the preservation and effectiveness of one or more energy savings measures. IRM costs are not added to any individual or partial group of energy saving measures costs. The total cost of all IRMs is added to the cost of the package of weatherization measures to calculate the whole unit - cumulative SIR.

The energy savings measure that requires the installation of an incidental repair must be documented in Hancock. Incidental repairs will not be approved without justification. Each incidental repair MUST be tied to the ECM it is allowing to be installed and use the same funding source.

EmP Refer to the EmPOWER Price List for allowable incidental repairs.

MEAP SWCs may refer to the EmPower Price List for allowable incidental repairs.

8.3.4. MEASURE PRICING

DOE In the DOE WAP program, all allowable expenditures must be properly documented as costs incurred on eligible dwelling units in the subgrantees records. The LWA must bill for actual costs incurred and retain sufficient supporting documentation, i.e., receipts, inventory, and personnel records to justify actual costs billed. Subgrantees must make supporting documentation available to DHCD upon request.

Subgrantees that have procured contractors/subcontractors to provide weatherization services must adhere to their own procurement policies and guidelines in accordance with 2 CFR 200.318 (General procurement standards) through 200.326 (Contract provisions).

DHCD will reimburse for measure pricing that is documented through the subgrantee's completed and approved procurement process to include valid executed contracts with vendors/subcontractors.

EmP The approved EmPOWER price list is to be used as not-to-exceed values for measures billed. Costs for measures must be equal to or lesser than the values listed on the Price List.

SWCs working as subcontractors for LWAs cannot charge the LWA in excess of the specific pricing incorporated in their contract with DHCD.

MEAP The approved EmPOWER price list is to be used as not-to-exceed values for measures billed. Costs for measures must be equal to or lesser than the values listed on the Price List.

SWCs working as subcontractors for LWAs cannot charge the LWA in excess of the specific pricing incorporated in their contract with DHCD.

8.4. JOB REQUIREMENTS

In addition to the [measure requirements](#) listed above, a job also has to meet certain requirements based on its work scope as a whole. The job requirements vary by funding source.

DOE All DOE WAP measures must meet an SIR of 1 or greater. Additionally, the total package of measures must also meet an SIR of 1 or greater.

The cost of weatherization for single-family dwellings is dictated by the approved average cost per unit (ACPU). DHCD determines the ACPU through a simple calculation - dividing the number of units reported as completed to DOE into the amount of expenditures reported during the previous program period. Once the ACPU is determined, it is submitted to DOE in the Annual State Plan for approval. DHCD's ACPU will not exceed DOE's adjusted average cost per unit as outlined in the annual WPN.

It is the responsibility of each LWA to maintain a running ACPU on agency projects that have a work order in an effort to meet production goals in units completed and dollars expended.

EmP An EmPOWER scope (any Tier) must have a minimum job SIR of 1.1.

Based on Tier level, certain job cost caps apply. Note that the hard caps are inclusive of H&S budget and audit fees:

LIEEP Tiered Job Budget Caps		
Tier	Budget Caps	Audit Fees
Tier 1	<ul style="list-style-type: none"> • Soft cap at \$2,500 • \$1,000 Health and Safety • Hard cap up to \$7,500 if HVAC system replacement is included 	Tier 1 audit fee capped at \$300
Tier 2	<ul style="list-style-type: none"> • Soft cap at \$7,500 • \$1,000 Health and Safety • Hard cap at \$12,000 	Tier 2 audit fee capped at \$400
Tier 3	<ul style="list-style-type: none"> • Soft cap at \$4,500 • Hard cap at \$7,500 <p>Combined Tier 1 + Tier 3 scope not to exceed \$12,000 in ES/IR budget, \$1000 in HS, and \$400 in audit fees.</p>	\$100 for retesting

MEAP For weatherization jobs funding using MEAP funding, all ECM measures must meet an SIR of 1 or greater. Additionally, the total package of measures must also meet an SIR of 1 or greater.

There is no SIR requirement for crisis heating system replacements or cooling and hot water heater replacements.

8.5. HISTORIC PRESERVATION REVIEW

Energy efficiency projects may adversely affect properties that are listed in or are eligible for listing in the National Register of Historic Places. Such projects have to be reviewed in accordance with the Maryland Historical Trust Act of 1985, State Finance and Procurement Article §§5A-325 and 5A-326 of the Annotated Code of Maryland.

An energy efficiency project requires DHCD's review if the work scope includes any of the following measures:

- Installation of storm windows or doors and installation of screen doors
- Repair of windows, doors, and door frames
- Replacement of non-historic windows, doors, and door frames
- Replacement of historic windows, doors, and door frames when they are deteriorated beyond repair and the replacement features conform to the Standards
- White roofs, cool roofs, green roofs, sod or grass roofs
- Repair or replacement of exterior siding
- Roof replacement
- Lead-based paint abatement
- Repairing masonry, including re-pointing and rebuilding chimneys.
- Installing vents (such as ridge vents, roof vents, bath and kitchen vents, crawl space and foundation vents, soffit and frieze board vents, or combustion appliance flues).

If a project meets the above criteria for a historic review, the network partner must send an email to dhcd.energyuse@maryland.gov, referencing "Historic Preservation Review" and the job number in the subject line. Provide the following information in the email:

- Photographs showing general views of all sides of the exterior of the building.
- Photographs showing the features that will be affected by the proposed work (e.g. the window to be repaired for example).
- List the work to be undertaken, please be specific (for example; replace broken glazing in first floor living room window, 2'6"x3'4" double hung wood window, wood frame to remain).

Once approved or denied, the DHCD Historical Architect will notify the Network Partner and DHCD by email of the results of the review and the project is released from Hancock. **No work may begin until the project has been reviewed.**

If the review results in a determination that the project may adversely affect historic properties, an alternative project version can be submitted for review and comment. The original rejected version cannot be implemented.

8.6. DESK REVIEW

Desk reviews are remote reviews of work scopes through a DHCD inspector by way of Hancock job data. Desk reviews are optional for any job the network partner prefers to have reviewed, and mandatory for a number of jobs as specified below.

8.6.1. THE DESK REVIEW PROCESS

Prior to creating a work order, a desk review by an inspector will be required under the following conditions:

- Replacing furnaces, boilers, heat pumps, and/or central air conditioning system regardless of overall job cost.
- Replacing major appliances such as refrigerator/freezer combos, domestic water heaters, washers, dryers regardless of overall job cost.
- All denials (EmPOWER), or deferrals (DOE) must be reviewed by an inspector regardless of cost.

The network partner is responsible for requesting the desk review by sending an email to dhcd.jobreviews@maryland.gov. The email subject line should reference the job number and the reason for review. Review requests are typically fulfilled by the end of the next business day.

Jobs that don't contain the [required desk review documentation](#) to verify that program requirements are met, will be sent back to the Network Partner for correction.

If a job is rejected and returned to the partner to revise/rework, the partner shall notify the inspector that the job is ready for re-review. After correction have been made. If, in the event the re-submitted job is rejected by the inspector, the network partner shall reassign the audit/data entry to another auditor for completion and resubmission. DHCD inspectors will monitor and track rejected desk reviews; if the inspectors identify trends with a partner or specific agency, T&TA shall be initiated for modeling. If the trend continues, inspectors may recommend retraining of the partner/auditor.

Rejection of the same job 3 times by a QA inspector- Job will need to have another auditor either review for corrections or reaudit/model the dwelling.

- Three (3) of these type jobs in a quarter, by auditor will result in a 2 week suspension from auditing/modeling for the program(s)
- Six (6) of these type jobs in a quarter, by auditor will result in a 4 week suspension from auditing/modeling for the program(s)
- Nine (9) types of these jobs in a quarter, by auditor will result in a 8 week suspension from auditing/modeling for the program(s) and the auditor will need to be retrained

Rejection of multiple jobs (less than 3 times per job)

- Three (3) desk review rejections in a quarter, by auditor will result in a 1 week suspension from auditing/modeling for the program(s)

- Six (6) desk review rejections in a quarter, by auditor will result in a 2 week suspension from auditing/modeling for the program(s).
- Nine (9) desk review rejections in a quarter, by auditor will result in a 4 week suspension from auditing/modeling for the program(s).
- Ten (10) or more desk review rejections in a quarter, by auditor will result in a 8 week suspension from auditing/modeling for the program(s). In addition to the suspension, the auditor will be mandated to report for EA training and modeling training.

DOE

All jobs having selected measures costing a total of \$4,500.00 or higher require a desk review and inspector approval, and must include justification by the auditor indicating the reason(s) why the job will exceed \$4,500.00. Such justifications must be concise and must describe the measures, with pricing, that generate the job cost. For example, *“The home has a very large crawl space with no existing insulation and no vapor barrier. The cost to insulate the crawl space and install a vapor barrier was \$4,275.00.”*

EmP

All Tier 2 Empower jobs having selected measures costing a total of \$7,100.00 or higher require a desk review and inspector approval, and must include justification by the auditor indicating the reason(s) why the job will exceed \$7,500.00 (including the audit fee). Such justifications must be concise and must describe the measures, with pricing, that generate the job cost. For example, *“The home has a very large crawl space with no existing insulation and no vapor barrier. The cost to insulate the crawl space and install a vapor barrier was \$4,275.00.”*

Additionally, whenever Empower jobs produce high projected energy savings Hancock will automatically trigger a desk review. These thresholds are listed below:

- Projected kilowatt hour savings greater than 35%
- Projected therm savings greater that 35%
- Projected mmbtu savings greater than 35%

When a desk review is triggered due to high energy savings, Network Partners must review their data entry and ensure that the modeling data is accurate. Some sections in Hancock that can skew projected energy savings are:

- Assigning a building’s Air Leakage as greater than Uniform, Normal, and Normal on the Audit Information screen in Hancock. Photos and comments must be uploaded to support the described conditions .
- Overestimating duct leakage in the distribution system. If the duct leakage is categorized as Significant Leaks or Catastrophic Leaks, photos and comments must be uploaded in Hancock to verify the conditions.
- Improperly rating the existing attic insulation. Existing R-values in attics should be evaluated based on conditions as found, not based on disturbance during weatherization.

- Not entering correct data on existing heating/cooling systems.
- Failure to enter data for existing large appliances such as domestic water heaters, refrigerators, and freezers.

MEAP Replacement of a cooling and heating system or water heater requires a desk review; regardless of the associated costs.

8.6.2. DESK REVIEW DOCUMENTATION

In order to receive approval on a desk review the following conditions must be met:

- Data in Hancock must be thorough and accurate. Comments describing conditions found and measures to be installed must be entered in the appropriate comments boxes in Hancock.
- All applicable measures are called out or addressed. Measures that are not considered shall be documented as to the reason why the measure will not be added to the model/work scope (i.e. a wall could not be dense packed due to budget constraints)
- Heating source will be verified and must be shown on the “Client Information” screen.
- All [required forms](#) must be uploaded in the Hancock Documents section.
- A complete Manual J load calculation when furnace, boilers, heat pumps, and/or central air conditioning systems are to be replaced.
- Full combustion testing is required on all fossil fuel (natural gas, propane, oil) combustion appliances. Appliances to be tested are furnaces and water heaters, where applicable. The minimum data that is to be included for each appliance is: stack temperature, draft, O₂, CO₂, combustion efficiency and CO levels. The results are to be detailed in the “Combustion Test” section of “Weatherization” in Hancock. If there is a reason that combustion testing cannot be done (B-vent appliances, sealed combustion appliances where the exhaust port is inaccessible, etc.), the reason for the lack of testing must be specified in the comments section of Hancock.
- SIR results will be checked on each job.

Required Photos:

- Every job must have clear photos of the following:
 - a. Exterior elevations of each exterior wall
 - b. Attic and attic access
 - c. Basement and/or crawl space
 - d. Heating source – (furnace-boiler-heat pump-baseboard)
 - e. Cooling system(s) - central and/or window air conditioning system(s)
 - f. Duct system. Hot water tank or hot water system.
 - g. Refrigerator(s)
 - h. Descriptive pictures and appropriate comments of Health and Safety measures
 - i. All miscellaneous or general repair measures

- j. Any other pictures that will provide support for specified measures

9. WEATHERIZATION SERVICE DELIVERY

Network Partners are responsible for completing all weatherization work in accordance with the DHCD SWS-aligned Field Guide, and Program Operations Manual. NREL's Standard Work Specifications Tool (<https://sws.nrel.gov/>) has been integrated into the DHCD Maryland Field Guide, to ensure that DHCD's technical standards for weatherization comply with DOE and national weatherization standards. An electronic PDF Maryland Field Guide can be found here: http://www.dhcd.maryland.gov/Website/Programs/WAP/documents/Field_Guide.pdf. Printed copies of the DHCD Field Guide can be obtained by contacting HBEP. All Network Partners should have copies of the Field Guides in their weatherization vehicles. All three should be referenced for guidelines, application and standards. These standards apply to both direct hire crews and private contractors. Quality Control and Quality Assurance inspections will be conducted with these tools as a guide.

The Housing and Building Energy Programs unit recognizes that it is impossible to address all situations that may arise in the field when a dwelling is being estimated, audited or when work is being performed. Professional results depend on good judgment being used at the work site. Network Partners are encouraged to contact DHCD's Quality Assurance Inspection staff with any questions or for clarifications regarding work quality or policy.

9.1. SERVICE DELIVERY PROCESS

Network partners are required to stay involved in the process of service delivery by managing the installation through skilled trade crews and weatherization crews, and must be available to the client and DHCD staff for questions about the project. In some cases problems with installations arise and it is important that network partners handle such issues promptly according to their problem escalation procedures.

Network partners must organize the service delivery in an order that minimizes the risk of having to abandon work due to unforeseen circumstances. This strategy may include to fix any health & safety related measures as well as modifications to combustion appliances first, in case additional issues are found.

The Hancock database must be updated throughout the service delivery process within one week of any activity occurring.

9.1.1. CHANGE ORDERS

Change orders may become necessary during the course of service delivery. The purpose of the change order is to capture measures that were not addressed through the energy audit due to lack of access or

data available at the audit. DHCD expects that network partners will conduct a thorough energy audit and be able to capture all eligible energy savings, health/safety and incidental repair measures.

Change orders are to be entered in Hancock via the Change Audit tab and following the change audit process. Additionally, any and all changes must be noted in the comments section of the client information section of Hancock. The documentation shall include the measure added/deleted, justification for the change, the price of the change and the new total. Jobs requiring a change order shall be left in the job's current status; at no point should a work order be deleted to add additional measures. Some change orders may require a second desk review; for those cases the desk review process shall be followed.

DHCD will monitor and track change orders and may require T&TA for network partners and auditors if a trend of change orders is observed.

9.2. MULTI-UNIT PROPERTY SERVICE DELIVERY

Multi-unit properties can be serviced in batches for maximum efficiency of operations, following this process:

- Network Partner provides DHCD with a production schedule for the property. Production may be scheduled building by building as they become income certified or in groups if the whole development qualifies for weatherization. Weekly communication between the project manager and DHCD's inspector to coordinate production and monitor progress is required.
- Network Partner must gather the following forms for each tenant at some point before any reimbursable work is performed. Requests for reimbursement will be denied if any of these forms are not located in Hancock at the time of invoicing:
 - Signed tenant synopsis form
 - Units certified lead-free by MDE only require a copy of the lead-free certificate for the property. Otherwise - a signed "Renovate Right / Protect Your Family from Lead in the Home" form for each tenant is required to be uploaded to Hancock.
- Weatherization projects must be performed in accordance with program guidance.
 - Cost guidelines for each funding source are consistent with those for the weatherization of Single-family Homes.
 - Network Partner must notify the assigned DHCD QA Inspector when units are completed and ready for QA inspection.
 - The Hancock client record for each unit must be updated in real time as it moves through the production process.
- Completed units must be invoiced immediately after QCI inspection. Batch processing is allowed only in weekly increments. The following documents must be present in each job's case file in HES for an invoice to be approved:
 - Property rent roll and roster
 - Building owner agreement (including Memorandum of Agreement, if landlord contribution applies).
 - Tenant synopsis.

- Lead-free certificate OR tenant signed “Renovate Right / Protect Your Family from Lead in the Home”.

EmP

Utility provider and usage must be verified by DHCD for all participating units to be weatherized with EmPOWER funds. Network Partners must gather signed utility consent forms for each tenant at some point before any reimbursable work is performed. Signed utility consent form with valid account number must be present in each job’s case file in HES for an invoice to be approved. Requests for reimbursement will be denied if any of these forms are not located in Hancock at the time of invoicing.

10. QUALITY CONTROL AND QUALITY ASSURANCE

10.1. QUALITY CONTROL INSPECTIONS

Every weatherized unit must receive a quality control inspection by the network partner to ensure that all work meets the minimum specifications outlined in the SWS.

The purpose of the Quality Control inspection is:

- To provide services in a manner that meets the highest level of professionalism and to comply with standards established by DHCD, the federal government, and the industry; and
- To provide services in a timely fashion and with the highest level of resource accountability possible in accordance with the scope of work provided.

10.1.1. QCI REQUIREMENTS

The following are mandatory for QC Inspectors:

- QCI competency must be demonstrated by BPI Certification as an HEP- Quality Control Inspector (HEPQCI)
- The LWA/SWC is responsible for ensuring that all Quality Control Inspectors are adequately trained and credentialed.
- Quality Control Inspectors must be independent of the work they are inspecting. The Quality Control Inspector cannot be the same individual who audited the property or performed any of the work for the property they are inspecting.

It is the responsibility of the Quality Control Inspector to ascertain the completeness and quality of work according to the work order, of each dwelling unit before certifying in the Hancock system that the unit is complete.

At a minimum, Quality Control Inspections must contain these elements:

- Agency must set job status to “measures installed” or “inspected”;
- Perform a blower door test to verify and record results of air infiltration reduction achieved;
- Perform a combustion efficiency test and combustion appliance zone (CAZ) testing of the central heating system(s) (fossil fuels) to verify results of furnace service contractor;
- Perform a walk-through inspection of the property to verify that all possible ECM’s were called out/completed and the presence of all installed materials and that the installation of materials as recorded on the Work Order and Invoice documents meet SWS quality;
- Verify all building characteristics as entered into the audit software;
- Document client comments and obtain client signature on the appropriate forms which verifying the work performed; and
- Certify completeness and quality of all items listed in the work scope in the Hancock system;
- Upload clear and concise photos of every measure installed. Document any issues with the work and note Hancock.
- Upload signed QCI form in Hancock.

When the QC inspector finds issues with workmanship or work not completed to SWS, quality or quantity of measures, or missed opportunities, the QC inspector shall mark the job as failed and issue a rework work order. The network partner is encouraged to follow [DHCD’s Technical Assistance process](#) when repeated issues are found with the same subcontractor or crew.

The rework order shall include, but not be limited to the following:

- Photo documentation and description of the failed measure in Hancock;
- The description shall include the SWS that was not met;
- Client information comment section shall be noted as to why the case has failed and a rework order shall be prepared;
- The rework order shall be uploaded to Hancock under Misc. Documents and titled “Failed QCI”
- The rework order shall state rework must be scheduled within 5 business days and complete within 10 business days of the failed QCI. For any measures that failed that pose imminent life, health/safety issues the rework shall be ordered to be completed within 48 hours;
- Upon completion of the rework order, the QC inspector shall schedule a follow up inspection to verify and document that all failed and/or missed items have been corrected;
- Upon successful re-inspection, Hancock shall be updated and documented to reflect the status of the passed inspection.

EmP

QCI inspections as described above are only required for [Tier 2](#) and [Tier 3](#) jobs.

[Tier 1](#) jobs are exempt from full QCI and instead have to be submitted with a job completion form that can be signed by any network partner employees that can certify that the work was completed as stated. The form must also be signed by the program participant. Any Tier 1 job that involves the replacement or repair of combustion equipment require also a post-install

combustion test performed by any BPI certified professional. The test results must be entered in Hancock.

10.1.2. QCI DOCUMENTATION

All QCI inspections shall be documented in the Hancock job and client record as well as on agency QC forms. The agency QC form is provided for every job through the Hancock QC functionality.

Hancock documentation required:

- QCI personnel shall be indicated on the “inspection” screen and the QCI’s BPI number added to the “inspection detail” comment box
- All measures will be evaluated for compliance with SWS and graded as PASS or FAIL
- Any measure found to be FAILED shall have the deficiencies documented in the “inspection detail” section and documented in the QC measure section
- Photos shall be uploaded for ALL installed measures and measures that were not completed (due to missed opportunities or budget issues)
- Upload signed agency QC form to WAP Documents under “Signed Homeowner QC Form”
- If using subcontractors, upload a copy of the failed QC report to “WAP documents” under “misc document upload”

Agency QC form:

- Agency QC form shall be filled out completely for all measures completed and evaluated.
- Agency QCI shall enter their BPI number on the QC form and sign off on the job regardless of pass/fail status
- If, there is a callback for failed items or missed opportunities, a second QC form may be used to document the rework and evaluation of the work.
- Homeowner/tenant signature is required
- QCI shall document all failed measures and indicate rework needed. This includes any missed opportunities.
- All QCI forms shall be uploaded into Hancock (see above)

10.1.3. No SHOW POLICY

It is anticipated that a small percentage of units will not receive Quality Control inspections or installation cannot be completed due to a variety of extenuating circumstances including:

- Client moves/dies & property is vacant or occupied by a second party; or
- Client is unavailable after several attempts to re-enter and inspect.

The following are the procedures for reporting "no show" properties:

- Network Partner completes the weatherization services and forwards the Work Order to the

Quality Control Inspector.

- Quality Control Inspector will be responsible for contacting landlords/property managers to seek assistance in completing the inspection process, as required.

Quality Control Inspector must make several attempts to enter the property, including:

- Contacting the client by telephone to schedule appointment;
- Forwarding of a letter setting a time and date for the inspection;
- Conducting an unscheduled site visit to the dwelling; and
- In the case of rental properties, performing the previous steps with the landlord as well as the client.
- The Quality Control Inspector alerts DHCD staff that the unit cannot be accessed and provides documentation of each attempt to contact.

In the event that a network partner is unable to gain access to the property after following all guidelines above, DHCD's HBEP staff should be immediately notified for advice on how to seek reimbursement. Decisions regarding these matters will occur on a case by case basis. DHCD reserves the right to remedy these situations in whatever fashion it deems is in the best interest of the State.

10.2. QUALITY ASSURANCE INSPECTIONS

DHCD Quality Assurance Inspectors provide additional program oversight to all field work, energy audits, energy modeling, and Quality Control Inspections to ensure the work is done according to all program guidelines and standards.

10.2.1. QA REQUIREMENTS

DHCD's HBEP Quality Assurance inspectors are required to review not less than 10% of each Network Partner's completed units. If the Quality Assurance Inspector finds a consistent pattern of missing or poor quality work a higher percentage units will be inspected until the issue is resolved. Training and technical assistance will also be provided to assist in the resolution process.

DHCD's HBEP QA staff will inspect only those units that have been certified as complete in the Hancock system by the Network Partner's Quality Control Inspector.

When performing desk reviews, the inspectors may have pre-selected certain jobs for QA monitoring. The Network Partner must notify the inspector when one of the selected jobs is ready for inspection as they cannot be invoiced before accepted by a WQ inspector.

10.2.2. QA DOCUMENTATION

If a unit is rated "Poor" the contact person at the LWA/SWC will be notified via email by the QA inspector and will receive an automated email from the software advising of the poor-rated QA. The agency must access Hancock and create a work order of all items rated poor. The software will email the

QA Inspector to inform them that a call-back work order has been created. Once the installation of the call-back work order is entered and certified by the LWA/SWC Quality Control Inspector, the software will email the Quality Assurance Inspector that the unit is ready for re-inspection.

“Poor” rated units must be scheduled for resolution by subgrantees within five working days. Issues impacting occupant health and safety must be resolved within 24-72 hours, depending on the seriousness of their nature. Subgrantee failure to adhere to this policy could result in the withholding of referrals, back-charges, stopping payment on current invoices and, in extreme cases, suspension or removal from the WAP. Please note the following:

- A unit will receive a poor QA inspection if materials reported as installed cannot be found;
- A unit will receive a poor QA inspection if measures were not installed to program standards;
- A unit may receive a poor QA inspection if major weatherization services or leveraging opportunities were missed (e.g., no attic insulation installed and could have been, no furnace work performed etc.) and the file does not indicate why the service was omitted.

A unit will receive a poor QA inspection if additional, uninstalled health and safety measures are still required.

11. INVOICING AND PAYMENTS

The Hancock Energy Software is the Network Partner’s reporting and payment system. It is therefore incumbent upon the Network Partner to maintain the accuracy and integrity of the database.

Complete and accurate data for all weatherization buildings and dwelling units must be entered into the Hancock database. Before a building or dwelling unit can be presented to DHCD for payment, the Network Partner must enter data that certifies that:

- The building or dwelling unit is eligible to receive assistance.
- The applicable budget period and funding source is correctly entered.
- All work performed on the building or dwelling unit has been completed.
- The amounts invested in each project are correct and reasonable.
- The estimated energy savings that will accrue from the work is correct and was calculated in accordance with program rules.
- A post inspection of the work has been conducted.

11.1. INVOICING PROCESS

Network Partners are required to submit invoices for completed jobs in Hancock on an ongoing basis. Holding jobs for batch processing is not permitted and causes delays in payments. Multiple jobs can be included on the same invoice, however each funding source and county has to be billed on separate invoices. Jobs not invoiced through Hancock will not be paid.

Submitted invoices are pre-screened by Hancock for required documents and then reviewed by DHCD’s invoicing team. Once the invoice is submitted and the jobs files includes all required supporting

documentation, DHCD invoicing staff will verify and review to ensure all [invoice requirements](#) have been met. Invoices that meet all [invoice requirements](#), are approved.

Invoices that don't meet all [invoice requirements](#) are released and the subgrantee is required to correct any issues before processing is completed. In some instances (when an invoice contains 3 or more jobs), a job may be released from the invoice (rather than the entire invoice being released) so that the remainder of the invoice may be paid. This process can be lengthy and time-consuming. If it is determined that the same jobs are repeatedly being released, for the same reasons, DHCD may release the entire invoice until the job has been correctly submitted. Prior to the re-submission of an invoice, check the "comments" section in the "client information" screen, as this section contains pertinent information on any job which has previously been released. The issues should be fully resolved prior to re-submission of the invoice.

When the invoice review process has been completed, the invoice is marked "paid" in Hancock. The status of "paid" only means that your invoice has met all requirements and has been approved for payment.

The invoices are then submitted to DHCD Finance for budget coding and verification. Once that process is complete invoices are submitted to the Maryland Comptroller's Office to render payment. Up to date payment information can be obtained from the [Maryland Comptroller's website](#). The State of Maryland's processing time for invoices is 30 days and the Comptroller takes up to one week to issue payments. If you have not received payment within 60 days or have questions about the payment, use the "One Stop Vendor Payment Inquiry" to check the status of your payment. Once registered, only a Taxpayer Identification Number (TIN) is required, then select "unpaid." If additional information needed, please contact your designated DHCD Financial Officer with the invoice number, paid date, and full client name.

Network Partners can use the "invoice list" in Hancock to track all open, submitted, and paid invoices. The following is a description of each stage on the invoice list:

- Open Invoices: In the process of being built.
- Pre-approved Invoices: Invoices that have been submitted for approval and passed an initial automated check for required documents and photos. Hancock tracks the date on which the invoice was submitted.
- Approved Invoices: Have been approved for payment by DHCD and processed for payment.

In addition to submitting and tracking invoices, Network Partners are able to generate reports detailing invoice and job production activity. The "Paid Invoice Report" details paid jobs that have been approved by DHCD and categorized by funding source. This report does not detail manually created invoices.

DOE

Allowable Expenditures

Allowable expenditures shall mean the total of all expenditures qualifying as allowable expenditures in accordance with the terms and conditions of the Federal rules, 10 CFR 440 and at 2 CFR 200 and with all other pertinent guidance from DOE and DHCD, including this manual. All expenditures must be properly documented as costs incurred on eligible dwelling

units in the subgrantee's books and records. Expenditures must be consistent with the latest approved budget.

Administrative Costs

Administrative costs shall mean those costs which a subgrantee incurs that are not in direct support of individual WAP projects, but are necessary for the organization to operate the WAP. Typical expenditures found in this category are wages and fringe benefits for executive, accounting, and administrative personnel working on the program.

Other typical administration cost category expenditures are payroll processing costs, costs to administer health insurance programs, data processing costs, indirect costs as allowable under this agreement and bank service fees. As with the other weatherization cost categories, those costs applied to administration must be actual and allowable under the applicable federal regulation.

Health and Safety

Allowable expenditures include work scope measures which promote energy-related H&S or costs related to the elimination of H&S hazards which are necessary before or because of installation of weatherization materials. All H&S repairs provided under the program must be incidental and designed to protect or supplement WAP measures.

Indirect Costs

Indirect costs will be an allowable expenditure only when written approval of the indirect cost rate has been obtained by the subgrantee from the subgrantee's cognizant federal agency.

Indirect costs are generally considered Administrative costs; however, as part of an approved indirect cost pool, there may be costs included in this pool that are eligible for cost categories other than administration. For example, when audit and liability insurance costs are included in the cost pool, they may be prorated and included in their respective cost categories.

In cases where the pool contains costs that may be directly charged to the "Program Support-(Program Ops B)" category, a prorated share may be allowed; however, costs of this nature still have a share that has an administrative component. For example, all copying costs are charged to the indirect cost pool; however, there are both Program Support and Administrative costs contained within this pool. Subgrantees must first break out the share of the total copying costs for WAP and then provide the appropriate split between the "Program Support-(Program Ops B)" and "Administrative" cost categories.

Leave Time

Allowable expenditures include leave time and benefits earned only during the budget period, provided that the subgrantee records its liability for leave time and benefits earned during this budget period and payable thereafter in accordance with the subgrantee's board-approved employee benefits/personnel written policy. Severance pay may be an allowable expenditure if deemed reasonable and supported in the subgrantee's written personnel policy.

Program Support-(Program Ops B)

Allowable Program Support expenditures include items such as space, utilities, telephone, cost for energy audits and quality control inspections from authorized outside entities, and similar costs that are directly attributable to Program Support personnel.

Transportation Costs

Transportation allowances shall be reimbursed in accordance with the subgrantee's established written policy. The reimbursement rate will be based on the latest State of Maryland mileage rate.

Maintenance of Vehicles

Maintenance (including repairs) of weatherization vehicles shall be limited to \$2,000 per vehicle per annual budget period, unless prior written approval of a higher amount is granted by DHCD. Vehicles subject to excessive repairs should be replaced as early in the budget period as possible.

Liability Insurance

Allowable liability insurance expenditures shall be the documented and allowable portion of the total cost to acquire the liability insurance in accordance with the limits set forth in the grant agreement.

Financial Audit

Allowable financial audit expenditures shall be the documented and allowable portion of the total cost of producing the audit.

Training and Technical Assistance (T&TA)

Allowable T&TA expenditures shall include expenditures made in accordance with the approved program income budget for the Program Year in the database. This budget is provided in your initial grant agreement and subsequent budget amendments.

Advance Payments

Subgrantees may participate in the Advance Payment if they would experience an undue hardship by not receiving an advance. Requests for advances must include written justification. Justification must be uploaded to the Hancock database for review and approval. Additionally, the Subgrantee must complete a Certification of Advance Payment (CAP) Form to DHCD. If approved, the Subgrantee may request up to 25% of its weatherization allocation upon execution of the grant agreement. The advance is capped at 25% to ensure that the Subgrantee has no more than 30 days cash on hand.

In accordance with 2 CFR 200.305 (b), "[The Subgrantee] must be paid in advance provided it maintains or demonstrates the willingness to maintain both written procedures that minimize the time elapsing between the transfer of funds and disbursement by the [the Subgrantee], and financial management systems that meet the standards for fund control and

accountability as established in this Part”.

In addition to the requirements stated above, Subgrantees must meet the following criteria to be eligible:

- 50% or more of the prior program year contract total must have been expended.
- Quarterly financial reporting must be submitted on time (30 days after the end of the quarter) and reconciled with DHCD invoices processed.
- Subgrantees must demonstrate at annual monitoring that a sampling of contractors or vendors are issued payment and that payment is utilized within 45 days of invoice.
- Subgrantees operating under a Quality Improvement Plan will not be permitted to receive advance payments during the grant period.
- Advance payments to a Subgrantee must be limited to amounts needed and timed to be in accordance with the actual, immediate cash requirements of the Subgrantee in carrying out the purpose of the approved program or project.
- The timing and amount of advance payments must be as close as is administratively feasible to the actual disbursements by the Subgrantee for direct program or project costs and the proportionate share of any allowable indirect costs.
- The Subgrantee entity must make timely payments to contractors.

Failure to comply with the above criteria may result in a reimbursement-only method of payment.

Once the initial advance has been disbursed, DHCD will reconcile expenditures with the Subgrantee monthly. The Hancock “Approved Invoice Report” will be pulled on the 25th of each month. Reported expenditures for completed units will be totaled and deducted from the advanced amount given.

Subgrantees must submit any new request for advance by the 1st of each month by completing the CAP form and uploading it to Hancock. Upon approval, DHCD will disburse the difference of the remaining advance balance and the new request not to exceed 25% of the full award. Subgrantees must disburse funds available from program income (including repayments to a revolving fund), rebates, refunds, contract settlements, audit recoveries, and interest earned on such funds before requesting additional cash payments.

Should the full advance be expended prior to the 25th of the month, Subgrantees may request a subsequent advance at that time.

In the event that no units are completed within the 30 day period, no additional advances will be granted. The Subgrantee will have an additional 30 days to draw down the existing advance and complete units. At that time, the advance must be returned to DHCD.

Unless otherwise stipulated by the grant agreement, a grant recipient that receives an advance payment must fully expense the advanced funds and submit an updated CAP certifying the expensing of the advance payment before close out of the grant period.

EmP An invoice must be submitted within 75 days of completing the energy audit and no later than two weeks of job completion (QC date).

11.2. INVOICE REQUIREMENTS

DHCD reviews every invoice thoroughly before approving it. An invoice that does not meet all requirements will be rejected, must be modified, and then re-submitted. Network Partners should check that all requirements are fulfilled before submitting an invoice in order to reduce delays due to corrections.

At the time of invoice the job record must meet the following requirements:

- The [home is eligible](#) for the funding sources selected.
- All audit sections of the client’s Hancock file must be filled out and completed.
- Inspector Approval on Desk Reviews must be documented for all [jobs or measures that require desk reviews](#).
- [Measures must be eligible](#) for the selected funding source and funding sources must be [leveraged correctly](#).
- [Measure pricing](#) is in accordance with program guidance and [job budget caps](#) are not exceeded.
- All [job level requirements](#) are met.
- Photos must be uploaded for all measure categories that are included in the selected measures.
- Depending on the funding source, building type, measures installed, and age of residence, specific documents must be included. Review the table below to determine necessary documentation:

Document Requirements					
Document	Applicable Only If	EmPOWER	DOE	MEAP	RGGI
Tenant Synopsis Form (no signature required)	Building Type = Renter-occupied ...	x	x	x	x
Signed Homeowner QC Form		x	x	x	x
Energy Use Release Form	Alternative income verification was used	x			

	for multi-unit projects				
Manual J Report (furnace replacements)	Selected Measures include HVAC replacement	x	x	x	x
LEAD Renovate Right (home built prior to 1979)	Home built prior to 1979	x	x	x	x
Homeownership Affidavit (or other allowable documentation)	Building Type = Owner-occupied ...	x	x	x	x
Permission to Enter Premises		x	x	x	x
Landlord Consent For Weatherization (= Building Owner Agreement)	Building Type = Renter-occupied ...	x	x	x	x
Weatherization Deferral Form	If home is deferred / If EmP is Tier 1 job.	x	x	x	x
Tier 1 Job Completion Form	If job is Tier 1	x			
Copy of Landlord Contribution Payment	Selected Measures includes funding source "Homeowner Contribution"	x			

SECTION C - AGENCY ADMINISTRATION

12. TRAINING AND TECHNICAL ASSISTANCE

DHCD provides training and technical assistance (T&TA) to support Energy Program operations such as analysis, measurement, and documentation of program performance, skill development, and local monitoring, to improve program effectiveness.

To ensure consistent delivery of high-quality weatherization services, core competencies for the various staff positions that implement the programs including the types of training required for these job categories is described below. Increasing competency levels and workforce expertise helps assure that every home weatherized receives appropriate, properly installed cost-effective measures.

DHCD assists its Network Partners to provide the highest quality of services by offering ongoing education, technical assistance, and reimbursement for eligible training courses.

DOE LWAs are encouraged to budget a portion of each allocation of funds for T&TA to develop a qualified workforce capable of providing the highest quality weatherization services.

12.1. STAFF CERTIFICATIONS

Network Partner staff involved in performing weatherization services are required to obtain and maintain certain industry trainings and / or certifications. This section outlines the current certification requirements.

12.1.1. REQUIRED STAFF QUALIFICATIONS AND CERTIFICATIONS

The specific qualifications and certifications required depend on the role an employee has in the weatherization process:

Training or Certification	Installer	Crew Lead	Energy Auditor	QC Inspector
OSHA 10-hour Construction Safety course	x	x	x	x
EPA Lead Repair Renovation and Painting Certification	x	x	x	x
BPI HEP Retrofit Installer Technician (RIT) training or equivalent skills	x	x		
BPI HEP Crew Leader (CL) training or equivalent skills		x		

BPI HEP Energy Auditor (EA) certification			x	
BPI HEP Quality Control Inspector (QCI) certification			(x) prerequisite for QCI certification	x

OSHA 10-hour Construction Safety Course

Proof of meeting this requirement is provided via a student course completion card issued by OSHA. The student course completion card does not expire and only has to be provided once. However, it is recommended to retake the course every 3-5 years.

EPA Lead Repair Renovation and Painting Certification

Proof of meeting this requirement is provided via a certification issued by EPA. The certification expires 5 years after certification date and the employee will have to recertify.

BPI HEP Retrofit Installer Technician (RIT) training or equivalent skills

Proof of meeting this requirement is provided via a certificate of completion of the BPI HEP RIT training class OR documentation proving equivalent skills, knowledge, and abilities of the employee. Such equivalent skills must be in accordance with [NREL Job Task Analysis for the RIT](#) and documented through resumes, client and employer references, and other relevant trainings completed. This requirement does not have to be renewed as long as the retrofit installer continues to perform work in the position.

BPI HEP Crew Leader (CL) training or equivalent skills

Proof of meeting this requirement is provided via a certificate of completion of the BPI HEP CL training class OR documentation proving equivalent skills, knowledge, and abilities of the employee. Such equivalent skills must be in accordance with [NREL Job Task Analysis for the CL](#) and documented through resumes, client and employer references, and other relevant trainings completed. This requirement does not have to be renewed as long as the crew leader continues to perform work in the position.

BPI HEP Energy Auditor (EA) Certification

Proof of meeting this requirement is provided via the BPI HEP EA certification. Obtaining the certification requires training and passing the EA test. The certification expires after 3 years and the employee will have to recertify.

This requirement applies to any energy auditor whose existing BPI BA or Envelope Specialist is expiring or has expired, and to new energy auditors who have not held any BPI certifications. The only exception to this requirement applies to energy auditors that currently have an active BPI BA or BPI Envelope Specialist certification, in which cases those certifications are acceptable until they expire.

BPI HEP Quality Control Inspector (QCI) Certification

Proof of meeting this requirement is provided via the BPI HEP QCI certification. Obtaining the certification requires training and passing the QCI test. The certification expires after 3 years and the employee will have to recertify.

Regular Comprehensive Training will be required every three years for the position-based Home Energy Professional job categories listed above.

12.1.2. PROCESS FOR SUBMITTING STAFF CERTIFICATIONS

Staff certifications have to be submitted to DHCD in either of the following events:

- A new employee is added to the Network Partner's field staff
- An existing employee acquires a new certification or renews an expiring certification

When a new employee is added to the staff, the required certifications are collected and reviewed through the [Hancock user account process](#). An existing employee must email a copy of the update certification to dhcd.lieep@maryland.gov.

DHCD tracks the expiration dates of contractor certifications and may revoke user access when a required certification expires. The network partner is responsible for keeping track of expiration dates and renewing required certifications before they expire.

12.2. DHCD TRAINING COURSES

DHCD offers program wide training classes on an as-needed basis. Trainings may cover:

- Program guidelines that need refreshing for more than one network partner
- An introduction to new program guidelines
- Comprehensive program operations for new network partners
- Topics such as:
 - Using Hancock
 - Energy modeling
 - Program & Financial Management
 - Leveraging
 - Mobile home auditing and retrofits
 - Energy education
 - Client interaction
 - Etc.

Some training courses may be deemed mandatory, in which case DHCD will require attendance of at least one staff member (relevant to the training) per network partner and will offer reimbursement.

12.3. TECHNICAL ASSISTANCE

If a Quality Assurance Inspector finds a pattern of missing or poor quality of work in the sampling of desk reviews and job inspections, certain staff of that Network Partner will receive training & technical assistance. Agencies may also request T&TA assistance from DHCD staff.

The goal of training and technical assistance sessions is to maintain and/or increase the efficiency, quality and effectiveness of weatherization assistance at all levels, and to reduce the risk for waste, fraud, and/or mismanagement in jobs. Topics include the review of following guidelines:

- Hancock reporting
- Change orders
- Documentation requirements
- Ways to maximize energy savings in audits, minimize production costs, and improve project management.
- Ways to improve crew/contractor work quality

Network partners may request T&TA in events such as:

- A new employee was brought on board and needs specific training on program requirements. Specifically, new energy auditors and QC inspectors entering the programs shall be accompanied to their first five audits by a QA inspector.

12.3.1. PERFORMANCE EXPECTATIONS

Adequate performance is defined as the network partner and its staff meeting the expectations set forth in the grant agreement / contract, and the documents incorporated within, such as price lists, requirements of the RFA / RFP, as applicable. In addition, the services performed on site must meet all requirements defined in the sections Energy Audit, Work Scope, Service Delivery, and QCI of this POM as well as work specifications referenced within those sections.

DHCD takes note when the performance expectations are missed and will initiate T&TA support when repeating patterns of poor quality of work are identified.

12.3.2. TECHNICAL ASSISTANCE PROCESS

If an inspector identifies the need for T&TA, the following steps are taken:

- Inspector discusses the concerns with the program manager.
- Inspector documents the concerns in an email to the Network Partner's main contact, including:
 - Specific examples.
 - Define which employees should be included in the training.
 - Define the topics to be covered in the T&TA session.

- Schedule a training session for an appropriate time and place.

If the network partner identifies the need for T&TA, the following steps must be taken:

- Contact one of the State Inspectors by email, copying the DHCD program manager, and describing:
 - Which employee requires T&TA
 - Define the topics to be covered in the T&TA session.
 - Request a training session by suggesting an appropriate time and place.

T&TA is provided in a format that is most beneficial to resolving the specific performance concerns. It should be performed by using actual projects the agency is working on, but may be supplemented with the review of theoretical cases. The following training formats may be appropriate depending on the issue on hand:

- Resolve data management or documentation issues at the network partner's offices.
- Meet with with agency staff during inspections or while the crew is working on site to address technical workmanship.
- It can also be beneficial for both auditor and crew to attend QA Inspections to provide immediate-on-site T&TA with corrective action.

The T&TA must follow existing written guidance. If a network partners receives training that is contrary to existing guidance, the DHCD program manager should be consulted.

At conclusion of the training session the inspector should assess whether the concerns were resolved fully or whether additional training or increased monitoring is needed. In most cases increased monitoring through desk reviews and QA inspections is appropriate to ensure full resolution of performance issues. Increased monitoring is mandatory for a period of at least 60 days if the initial concerns were health and safety related. The network partner's main contact and DHCD's program manager must be notified in writing what the result and follow-up actions from the T&TA are.

The inspector who provided the T&TA will monitor the network partner's performance for improvements and notify both the program manager and network partner when the issues are deemed remedied.

12.4. TRAINING AND TECHNICAL ASSISTANCE REIMBURSEMENT PROCESS

Training and Technical Assistance (T&TA) funds are primarily used to train State and local weatherization staff on program operations, management, and technical topics. T&TA funds are intended to maintain or increase the efficiency, quality, and effectiveness of the energy efficiency programs. Such activities should be designed to maximize energy savings, minimize production costs, improve quality of work, and foster management expertise while reducing the potential for waste, fraud, abuse, and mismanagement.

Some of HBEP's energy efficiency programs offer reimbursement for training and technical assistance expenses. Funds may be used on activities such as participation, travel, and lodging to attend training activities and events directly related to program services. Such activities include certification trainings

and tests, and other mandatory training sessions.

Reimbursement requests are for expenses incurred within a program cycle. Prepayment for expenses to be incurred, particularly in a following cycle, is prohibited. Requests for reimbursement after the performance period will not be reimbursed. Training funds are available for only those that work directly for the Department's energy efficiency program, or as a subcontractor for an LWA contracted with the Department where specific training is required and funds are available. LWA's may allow or require subcontractors to attend T&TA events but must secure a retention agreement in exchange for the training if the subcontractor does not also have a direct contract with DHCD for energy programs. The retention agreement must require that contractors will work in the program for a specified amount of time and must align with the cost of T&TA provided.

Network Partners who have access to T&TA funds from multiple funding sources must request reimbursement from the funding source the training activity is most directly linked to. If applicable, the cost can be allocated at an appropriate ratio between multiple funding sources.

Network Partners may attend or procure training from any qualified resource within reasonable costs for the appropriate training.

DOE

Subgrantees are required to have qualified weatherization staff (and contractors, as may be applicable) fully trained in the performance of individual functions.

Subgrantees must ensure that weatherization staff and contractors maintain required levels of training and certifications. Subgrantees must evaluate their weatherization workforce to determine the types of training needed. Each subgrantees' policy should be written to encourage its staff and that of its contractors to attend training to strengthen worker competencies and skills.

The State allocates funding directly to the subgrantees for local staff, and sometimes contractor personnel, to attend program-related training.

Subgrantees may charge the cost of training to the T&TA category and the employee's time for participation in the training to the labor category (Program Operations).

Costs associated with training contractors that work within the WAP may also be charged to T&TA. To facilitate contractor training, subgrantees are allowed to pay a per-diem for contractor personnel to attend training when it is designated as mandatory and has prior State approval. Fully executed retention agreements must be on file prior to approval.

Travel

Travel directly related to the weatherization of dwelling units may be charged to the Program Operations B category in Hancock. Other travel, (for example, to attend training), is to be budgeted and charged to either the T&TA or administrative categories.

Out-of-state travel for subgrantee personnel, when charged to DOE, requires prior approval by the DHCD.

Travel costs for Policy Advisory Council (PAC) members to attend PAC meetings will be

reimbursed in accordance with State travel procedures.

EmP

DHCD sets an EmPOWER T&TA budget for each network partner at the beginning of each year. Reimbursement is prioritized for mandatory training events and certifications, reimbursement for non-mandatory conferences and other voluntary activities is limited and may be approved on a case-by-case basis.

T&TA reimbursements are paid against each network partner's purchase order with the State of Maryland. There must be sufficient funds available on your purchase order to cover the expected costs. Amounts requested that are not available on the purchase order will not be reimbursed.

The T&TA budget is subject to change at the discretion of the program manager. Network partners will be notified of availability of funds at the time when pre-approval is requested.

MEAP

T&TA reimbursement is not available.

RGGI

T&TA reimbursement is not available.

12.4.1. PRE-APPROVAL FOR T&TA EXPENSES

Training activities must be pre-approved in writing by the program manager of the funding source to provide reimbursement prior to reserving or incurring any cost associated with the T&TA activity.

Pre-approval requests must be submitted at least one week prior to start of the T&TA activity by using [this online form](#). Pre-approval requires submitting documentation describing the activity, cost, participants, etc. When seeking pre-approval for T&TA activities, the following information must be provided:

- T&TA Reimbursement Request Form including:
 - Name/location of training
 - Training entity (individual trainer, training center, conference, etc.), if individual trainer, include trainers Résumé
 - Date(s) of training
 - Attendees and their roles
- Training agenda
- Quote or proposal for registration, class(es), trainer, etc. on training organizations letterhead, website, etc. If travel is required:
 - Quote for airfare
 - Estimated cost for ground transportation (parking, shuttle, taxi, tolls, etc.)

- Quote for overnight accommodations
- Requests for mileage, lodging and/or per diem will be reimbursed at the current rate paid by the state and in accordance with State Travel Policies and Procedures as specified in the travel regulations that can be found online at <http://www.dbm.maryland.gov/Pages/TravelManagementServices.aspx> . Rates change periodically for mileage and hotel as federal rates change. Check the state website for updated rates.

12.4.2. REIMBURSEMENT REQUEST FOR COMPLETED T&TA ACTIVITY

The Network Partner must submit a reimbursement request to the same program manager that granted pre-approval. Reimbursement documentation includes all the documentation [indicated above for pre-approval](#) in its final version, such as itemized receipts of actual services rendered and costs incurred. Additionally, include the following:

- Copy of certificate of completion, OR
- Copy of certification achieved

State funds will not reimburse for alcoholic beverages nor tips on meals. Items that are not required for the T&TA activity will not be reimbursed.

Request the reimbursement using the [T&TA reimbursement request form](#).

DOE Reimbursement requests for all indirect costs are submitted quarterly but can be as frequent as monthly.

EmP Reimbursement requests must be submitted within two weeks of completing the training activity.

13. DOE PROCUREMENT

This section outlines federal and state procurement requirements and provides guidelines and examples to aid in understanding the process. The established policy for competitive procurement and how it is implemented in Maryland are also covered in this section. The objective of the procurement process is to obtain needed services, goods, and materials at the lowest possible price, in a fair and open manner, without compromising quality or production.

13.1. PROCUREMENT PROCEDURES

All subgrantees must establish written procurement procedures that implement the requirements of this section and all applicable federal and state requirements, and result in procurement transactions that provide, to the maximum extent practical, open and free competition.

Procurement of professional services must also follow specific procedures. Professional services include those services rendered by persons who possess specialized skills and are not officers or employees of the organization. These services include, but are not limited to, consulting for accounting, auditing, computer, legal, and the procurement of energy audit services. Appropriate documentation must be maintained for review by a DHCD representative.

In the event that DHCD determines that a subgrantee's procurement procedures are not in compliance with this section, the subgrantee may be required to implement additional, specific procedures deemed reasonable and necessary for compliance. WAP reimbursements may also be disallowed.

Subcontractor Agreements

Subgrantees that use subcontractors to complete work on eligible dwelling units must follow the procurement procedures outlined in this section and must execute an agreement with each subcontractor for the specific work to be completed. Subgrantees are responsible for ensuring that the provisions of the Subcontractor Agreement are enforced. Subgrantees may not enter into side agreements with subcontractors for work on a project where WAP funds are invested.

Contractual Bidding Requirements

A Dun and Bradstreet (D&B) Data Universal Numbering System (D-U-N-S) number is required for contractors before they can participate in a subgrantee's bid. Organizations can receive a D-U-N-S number at no cost by calling the D-U-N-S number request line at 1-866-705-5711, or by registering on the D&B Web site at <http://fedgov.dnb.com/webform>. Individuals who would personally bid and receive a contract from a subgrantee, apart from any business they may operate, are exempt from this requirement. Contractors are not required to submit D-U-N-S numbers for their subcontractors.

Statewide Bid Process

DHCD has selected for-profit State Weatherization Contractors (SWC) through a Request For Proposal (RFP) via the State of Maryland procurement process to administer the EmPOWER LIEEP. SWCs were selected based on experience, capacity, capability, and pricing.

As the result of an open, fair, and competitive bid process, subgrantees may utilize DHCD's SWCs to perform weatherization services under the DOE WAP. The statewide bid process provides the subgrantee with a bid process that satisfies the competitive bid process requirements, and the technical analysis is considered complete for vendors awarded from the statewide bid process.

To the extent that the subgrantee wishes to separately contract with DHCD's SWC contractors, that is the determination of the subgrantee, considering DOE approval and procurement regulations and policies that apply to that individual subgrantee. The Subgrantee should consult with its own legal counsel regarding compliance with the subgrantees own procurement regulations and policies.

To the extent that subgrantees contract separately with an SWC contractor, DHCD will not be a party to that agreement.

Conflicts of Interest

No employee, officer, or agent of the subgrantee shall participate in the selection, the award, or the administration of a contract if a conflict of interest, real or apparent, would be involved. Such a conflict would arise when the employee, officer, or agent, any member of his or her immediate family, his or her partner, or an organization which employs or is about to employ any of the parties indicated herein, has a financial or other interest in the firm selected for the award. The subgrantee's officers, employees, or agents will not accept gratuities, loans, favors, or anything of monetary value from contractors, potential contractors, or parties to sub-agreements.

Written Procurement Procedures

All procurement transactions must be conducted in a manner providing full and open competition. There must be written selection procedures. The solicitation must also include a clear and accurate description of the service or material being procured.

Subgrantees must have written procurement procedures as part of their operations manual that include:

- Procedures that avoid the purchase of unnecessary duplicative items.
- Analysis of lease and purchase alternatives.
- Preferences for products and services that conserve natural resources and protect the environment.
- Purchase of federal/state excess and surplus property.
- Procedures to ensure that awards are only to responsible contractors (see Debarred Contractors below).
- Records that detail the significant history of procurement.
- Written protest procedures, including a designated protest committee made up of staff not involved in procurement/purchasing.

Subgrantees are encouraged to enter into state and local intergovernmental agreements for purchasing common goods and services. There must be a cost price analysis in connection with every procurement. Subgrantees must make proposed procurement technical specifications available to DHCD upon request.

The federal regulations require a number of provisions that must be included in all contracts awarded with DOE WAP funds. Appendix II of 2 CFR part 200 lists all the required provisions.

Methods of Procurement

- Micro purchase procedures for items which do not exceed the micro purchase threshold of \$3,000 in the aggregate.
- Small purchase procedures for services and goods that do not exceed the Simplified Acquisition threshold of \$150,000 in the aggregate.
- Seal bids (formal advertising)
- Competitive proposals
- Non-competitive proposals (sole source) may only be used when the item is available from one source, emergency situations, the awarding agency authorizes, or competition is determined inadequate. Pre-award review by DHCD staff is generally required.

Micro/Small Purchase

When procuring micro or small purchases where the formal competitive procurement process is not practical or appropriate, the following guidelines apply:

- Micro-purchase (equal to or less than \$3,000)
 - Aggregate dollar amount per purchase <\$3,000
 - Distribute equitable among qualified suppliers
 - May be awarded without competitive quotes.
 - Purchaser is required to use good judgment for all procurement of \$3,000 or less. No procurement documentation is required.
- Small purchase (up to \$150,000)
 - Relatively simple and informal
 - Competition is required from an adequate number of qualified sources. A minimum of three price quotations, verbal or written, must be obtained. Documentation includes, but is not limited to, a listing of sources contacted, date contacted, amount quoted, and who contacted the sources.

These procurement procedures for small purchases are for use only when the formal procurement process is not required and cannot be used in place of the formal procurement process.

When a Request for Proposals (RFP) is used, the minimum acceptable documentation must include:

- A copy of the RFP that was issued.
- A statement of how firms to be solicited were identified.
- A list of firms solicited.
- A copy of any newspaper advertisements used.
- Each proposal that was received.
- The written criteria for evaluation of the proposals.
- Documentation of evaluation of the proposals.

Sealed Bid Proposals (more than \$150,000)

This method of procurement should begin early in the procurement cycle to allow vendors time to prepare their bids to meet the specifications of the solicitation. Solicitation information should include:

- What is being purchased
- Terms and conditions the vendors must meet.
- Where and when sealed bids will be opened.

Awards are made to the lowest priced responsible vendor:

- Capable of compliance with all bid specifications.
- Capability of performing the work.

- Has administrative capacity.

Award becomes a firm, fixed price contract. Vendor's payments are either lump sum - paid for successful performance or unit price - paid for each deliverable unit completed in the contract. There must be a minimum of two responsive suppliers competing for contract.

Competitive Proposals (more than \$150,000)

There are three types of competitive proposals to include Request for Proposal (RFP), Request for Qualifications (RFQ), and Request for Information (RFI). Competitive proposal procurements require the following components:

- Publicized method same as sealed competitive process (invitation for bids).
- All evaluation factors publicized and their importance
- All vendor submittals received and evaluated.
- Proposals must be solicited from a number of qualified sources.
- Subgrantees must have a method for conducting technical evaluation of all proposals and for selecting awardees.

Awards must be made to the most responsive firm whose proposal is most advantageous to the program. Price and other factors must be considered to determine most advantageous offer. There must be a minimum of two responsive suppliers competing for contract.

Non Competitive Procurements (special circumstances which are applicable to all purchase levels)

Non-competitive procurement occurs when bids are solicited from only one source or, after solicitation from a number of sources, only one bid is received, or competition is otherwise determined to be inadequate.

Subgrantees must devise and document its own analysis process to ensure fair prices are being charged. Non competitive contracts become negotiated contracts. Subgrantees must determine what level of organization leadership is required to approve this method.

Procurement by non-competitive proposals may be used only when the award of a contract is not feasible following small purchase procedures, sealed bids, or competitive proposals and one of the following circumstances applies:

- The items or services required are only available from a single source.
- An emergency exists such that the urgency will not permit a delay beyond the time needed to employ one of the other authorized procurement methods.

In all cases, non-competitive negotiation which will involve WAP funds must have prior approval from DHCD.

A cost analysis must be provided which verifies:

- Proposed cost data

- Projection of the data
- Evaluation of costs and profits to support the reasonableness of the proposed award.

Award of bids following a non-competitive procurement may only be used with prior approval from DHCD.

13.2. VEHICLE PURCHASE

All subgrantee vehicle purchases are subject to competitive bidding and require prior approval by DHCD and DOE regardless of whether they were purchased with federal funds or with Program Income. Failure to follow these procedures may result in disallowances of these costs.

Requests for vehicle purchase must be submitted to the DHCD Program Manager and must include:

- Evidence that a lease/purchase option comparison was conducted.
- Justification for need to replace old vehicle or add vehicle
- Subgrantee Vehicle Purchase [\(Form #23\)](#).
- Copies of bid solicitation notices
- Copies of all bids received

Note: All vehicle specifications must be generic enough to encourage competitive participation. They cannot be manufacturer or brand name specific nor can they include options or combinations of options available from only one manufacturer or dealer. In keeping with the WAP mission of conserving energy, subgrantees are strongly encouraged to purchase alternative-fueled vehicles.

A Mileage Log must be maintained by the subgrantee for each vehicle purchased with WAP funds or Program Income.

Vehicle Replacement

Vehicles are essential for transporting staff and materials or conducting energy audits and inspections. A safe, reliable vehicle is a necessity; however, as a result of maintaining a fleet, each subgrantee is eventually faced with repair or replacement decisions. There comes a point when the cost to repair may be prohibitive and replacement is warranted.

It is recommended that each subgrantee project the useable life of each vehicle in their fleet and establish a replacement rotation so as not to burden any one budget period, especially with an unusually large number of vehicles to replace. For example, if the subgrantee determines a six-year life for each vehicle in a fleet of three vehicles, it may purchase one vehicle every two budget periods. Also, the cost of the vehicle may be charged over two budget periods.

Vehicle purchases must occur during the first six months of a budget period, and subgrantees must take possession of the vehicle as soon as practicable. Present the justification for approval as early in the annual budget period as possible. Delivery and possession of the vehicle after the middle of the annual budget period may result in disallowed costs without approval for a budget extension or approval to roll funds forward to the next budget period.

13.3. CAPITAL EQUIPMENT PURCHASE

All equipment purchases exceeding \$5,000 per item are considered capital equipment purchases and must be approved by the DHCD Program Manager. These purchases will be reviewed either as a part of the annual budget approval process at the start of a budget period or during the course of the annual budget period.

Authorization for equipment purchases qualifies those items for reimbursement pursuant to the WAP agreement. Both vehicle and capital equipment costs are amortized over the number of dwelling units completed during the contract period. For example, the cost of a blower door (\$4,500) could be amortized over the 150 homes completed during a budget period, resulting in a \$30 increase in the ACPU for the homes completed in that time frame.

When reviewing a capital equipment request, DHCD will consider the necessity of the equipment, the ability of the subgrantee's personnel to use the equipment properly, and the reasonableness of the request.

Those capital equipment purchase requests submitted during the last two months of the annual budget period utilizing unexpended program funds will be reviewed in accordance with the above criteria and with the following additional criteria:

- Unexpended balances cannot be due to underinvestment in weatherization services in units assisted during the budget period.
- Expected costs for the equipment purchase must be absorbed within contract, cost-per-unit constraints.
- Written prior approval from DHCD must be on file and all relevant procurement met.

13.4. TOOLS AND EQUIPMENT

When purchasing or disposing of tools or equipment (including office equipment and computers) with a value of \$1,000 or more per item, the subgrantee must submit an Equipment/Vehicle Acquisition/Disposition Report ([Form #31](#)) to DHCD within thirty days of receipt or disposition of the item.

Subgrantees must maintain an updated tools and equipment inventory, adding new items and disposition dates of items no longer in use as they occur.

Theft of WAP-purchased tools and equipment along with any accidents with WAP-purchased vehicles must be reported to the proper authorities. A copy of the applicable report must be given to the DHCD Compliance Officer along with all necessary insurance information.

Disposition of vehicles and equipment

When a subgrantee no longer wants to retain vehicles or equipment purchased with federal funds or

Program Income, the subgrantee must first determine and document the fair market value of the vehicle/equipment. When the fair market value of an individual unit of property falls below \$5000, the federal government's interest in the property is extinguished and the subgrantee may do what it wants with the vehicle or equipment, without the need for federal approval. A piece of equipment is considered to be an individual unit if it has individual utility or can be sold as an individual unit.

If the fair market value of the vehicle/equipment acquired with federal funds or Program Income is \$5000 or greater, the subgrantee may use the vehicle/equipment on another federally-sponsored program without requesting disposition approval. Prior approval from DHCD and DOE is required if the subgrantee wants to dispose of the vehicle/equipment rather than transfer it to another program. DOE will determine the amount, if any, that the subgrantee must compensate the federal government.

Regardless of the determined fair market value, subgrantees are required to complete the Equipment/Vehicle Acquisition/Disposition Report for vehicles/equipment registered with HCR and submit it to their fiscal or program field representative.

Subgrantees must document their determination of fair market value. Acceptable sources for this determination include established re-sale guides, price quotes from used vehicle/equipment dealers, and written trade-in offers.

13.5. DOE RECORDKEEPING

13.5.1. USE OF LOGS

It is recommended that the LWA/SWC use a tracking system to maintain a continuous status of each application for weatherization services. The use of "logs" can be useful in documenting activity for each case. The following are examples of frequently used logs. While some logs are optional, those involving appeals and hearings are required.

1. Application Log

An Application Log can be used to record referrals and applications taken on-site. Applications are received, each is logged in chronological order by the date of receipt. At a minimum, the log should contain:

- A. Document Control Number
- B. Name of Applicant
- C. Date of Application

2. Certification Log

A Certification Log will track applications through the system. The log should contain all information recorded as part of the Application Log (#1) and the following:

- A. Application Certification Number
- B. Date Certified

3. Denial Log

A Denial Log **must** be maintained to record those applicants who are denied weatherization services. The information on the log should be recorded chronologically by date certified ineligible. Additional information required for this log is as follows:

- A. Document Control Number
- B. Applicant Name
- C. Reason for Denial (code)

4. Complaint Log

A Complaint Log should be maintained to track the nature of clients concerns and the follow-up actions by program staff. The information should be logged chronologically as it is received and should include:

- A. Complainant's Name
- B. Document Control Number (if applicable)
- C. Nature of the Complaint
- D. Follow-up Action by Staff

5. Hearing Log

A Hearing Log **must** be maintained to record client requests for a hearing at either the State or local level. This log should include the following information:

- A. Applicant Name
- B. Document Control Number (if applicable)
- C. Nature of Hearing Request
- D. Date of Scheduled Hearing
- E. Results of Hearing

13.6. FINANCIAL MANAGEMENT SYSTEM

Subgrantees must have the capacity to financially manage all grant funds. This includes the ability to fully track the receipt and disbursement of all grant funds, and the ability to implement and maintain standard, accurate, financial management practices that can consistently safeguard weatherization funds and meet the definition of Generally Accepted Accounting Practices (GAAP).

In accordance with federal regulations, a Financial Management System must provide for:

- Identification, in its accounts, of all federal awards received and expended and the federal programs under which they were received.
- Accurate, current, and complete disclosure of financial results of each federal award or program.
- Records that identify the source and application of funds.
- Effective control and accountability for all funds, property, and other assets.
- Comparison of expenditures with budget amounts
- Written procedures to implement the payment requirements
- Written procedures for determining the allowability of costs in accordance with the cost principles.

Each of the criteria listed above must be incorporated into the Subgrantee's financial manual.

Internal Controls

Subgrantees must:

- A. Establish and maintain a system of internal control that provides for reasonable assurance that the entity is managing the award in compliance with federal statutes, regulations and the terms and conditions of the award.
 - Internal controls should comply with the Committee of Sponsoring Organizations of the Treadway Commission (COSO)
- B. Comply with federal statutes, regulations and terms and conditions of the award
- C. Evaluate and monitor compliance
- D. Take prompt action for noncompliance
- E. Take reasonable measures to safeguard PPII

13.7. REPORTING REQUIREMENTS

13.7.1. CLOSE OUT

Financial Reporting

Unaudited financial statements and audit reports must be submitted to DHCD in accordance with the grant agreement between DHCD and the subgrantee. The unaudited financial statements and audit reports will be used as the basis for the contract closeout.

Audit Reports

Financial audit reports shall be submitted within thirty calendar days following the completion of the financial audit, but no later than nine months after the end of the fiscal year being audited. Subgrantees must immediately notify DHCD of the acceptance of the annual financial audit by the Federal Audit Clearinghouse.

Preliminary Closeout

Upon receipt of the unaudited financial statements for a budget period, DHCD shall review the statements and all relevant records in accordance with all terms and conditions of this manual. DHCD will review and may disallow expenditures claimed for administration for any budget period, to the extent such expenditures represent a higher percentage of allowable expenditures than that represented by the last approved budget amount.

Based upon this review:

- DHCD shall make a preliminary determination as to additional payments due or monies owed DHCD as a result of unexpended cash receipts, disallowed costs, adjustments for units completed, and materials inventory.
- The subgrantee shall be notified in writing as to the result of this review and the preliminary determination.
- If as a result of such review there is an additional amount payable, DHCD will initiate payments concurrent with the issuance of the written notice.
- If monies are owed to DHCD, this amount may be set off by deducting any monies owed to DHCD from any payments due pursuant to other budget periods or any other agreements between the subgrantee and DHCD; or DHCD may issue a written request asking for the return of monies owed to DHCD.
- In the event that no current agreement is in effect between the subgrantee and DHCD, the monies will be due and payable to DHCD upon receipt of a written request by DHCD for return of the monies owed DHCD.

Failure of the subgrantee to submit the unaudited financial statements for any budget period, in accordance with the terms of the grant agreement, will result in a determination of allowable costs based upon the most current information and records on file with DHCD.

14. DOE AGENCY MONITORING

14.1. PROGRAM OVERSIGHT AND MONITORING

14.1.1. COMPREHENSIVE ANNUAL SUBGRANTEE EVALUATIONS

As required by DOE, an annual evaluation of each subgrantee is conducted following the end of the program year. This evaluation consists of two areas: program and fiscal. The combined results of the evaluation may affect future funding of subgrantees. Each subgrantee is rated in the following areas:

- Program management
- Outreach
- Building assessment
- Operations
- Quality assurance
- Reporting and recordkeeping
- Production
- Leveraging
- Financial stability
- Procurement
- Regulatory compliance

For findings of non-compliance or other areas where DHCD finds that subgrantee performance should improve, subgrantees are required to submit a corrective action plan. DHCD may take additional actions, including recommendations for T&TA, to address deficiencies noted in the annual evaluation. Subgrantee annual evaluations are also used to identify areas of program deficiencies requiring T&TA across the entire state.

Subgrantee annual evaluations include a summary of subgrantee reviews conducted during the course of the program year. Any material deficiencies of a program and/or fiscal nature will be handled immediately when possible, with an appropriate course of action. Any non-material findings will be handled through the work plan.

Through the monitoring process, DHCD strives to maintain the highest levels of performance that has the following goals:

- To ensure proper and timely use of funds and realization of expected benefits
- To provide transparency and accountability
- To provide quality control
- To provide technical assistance and training

DHCD is required to conduct comprehensive monitoring of each Subgrantee at least once within a 12 month period, provide a written report to the Subgrantee and maintain a file related to monitoring

which is accessible by DOE during its monitoring visits.

DHCD's monitoring visits are completed over a 3-day timeframe. The Program Manager will typically accompany program field staff on visits to Subgrantees at least once a year. For Subgrantees considered to be at higher risk of non-compliance, the frequency of program field visits may be increased. The comprehensive monitoring must include the following areas (for additional details please reference WPN 16-4):

15. Programmatic and Management Monitoring
16. Financial Monitoring
17. Subgrantee Monitoring

17.1.1. TECHNICAL FIELD REPRESENTATIVE REVIEW/VISIT

The technical field visit is an integral part of monitoring the WAP, along with desk reviews and other T&TA visits that DHCD staff perform. Technical field visits to subgrantees are conducted by DHCD Quality Assurance Inspectors to ensure compliance with applicable rules and quality of completed work. Visits include both file reviews, usually done at the Subgrantee's office, and on-site inspection of assisted buildings.

The technical field visit objectives include the following:

- Verify the program is properly managed and adequately staffed.
- Verify outreach to potential applicants is conducted in all areas of the subgrantee service territory, and that owner-occupied and renter-occupied buildings are both given the opportunity to apply for assistance.
- Verify applicants are being selected in accordance with subgrantee written policy and with federal and state rules.
- Verify the energy audits are performed correctly, the recommended work scopes correspond to audit findings and the opportunity to save energy is maximized.
- Verify the subgrantee is correctly identifying H&S issues and taking proper actions to correct them, that the subgrantee defers work on buildings with serious health or safety issues and applicants and owners are properly notified of H&S concerns.
- Verify measures and materials specified in the work scope were installed and that proper documentation is on file to support all work performed.
- Verify work is being performed in a high-quality manner in accordance with Standard Work Specifications, local codes, and all other federal and state requirements.
- Verify all dwelling units are QC inspected before submission to DHCD for payment, and that the subgrantee has evidence that all work was done as claimed.
- Identification of any problem areas requiring additional T&TA.

Inspection of a sample of completed and/or in-process dwelling units:

- Inspection of exterior
- Inspection of interior
- Inspection of any repairs performed, to verify that they were incidental, and designed to protect

or supplement WAP measures.

- Interview a member of the assisted household, to ask about their experience with the work and whether they have noticed any changes in comfort or energy costs.
- Provision of technical assistance in one or more of the following areas:
 - Energy auditing, building analysis, inspections, and work scope development
 - Technical issues, such as heating system work
 - Compliance with federal and state program rules
 - Health and Safety practices
 - Contract and production management
 - Reporting
- Assessment of leveraging efforts, including inspection of work completed with leveraged funds to assure quality control.

At each program field visit, the Subgrantee must have its calibrated blower-door set, H&S equipment (i.e. calibrated combustion analyzer, gas leak detector), cordless drill and ladder and a staff person knowledgeable about audits available.

17.1.2. FISCAL FIELD REPRESENTATIVE REVIEW/VISIT

DHCD’s fiscal field representative makes periodic on-site visits to each Subgrantee, during which they review the Subgrantee’s books, records, and relevant source documents to ensure compliance with federal and state guidelines and with generally accepted accounting principles, and to verify costs claimed on cumulative financial reports submitted by the Subgrantee. These reviews are conducted on expenditures of WAP funds, owner contributions and Program Income. The Subgrantee must make all of its books and records readily available for review by the DHCD fiscal field representative. Records of leveraged funds may also be reviewed when Subgrantees use WAP resources in conjunction with these funds.

DHCD fiscal field representatives also sometimes provide T&TA, with a view toward improving subgrantee fiscal responsibility and accountability and contributing to the ongoing review of a Subgrantee’s internal control procedure.

Written reports are issued to Subgrantees within 30 days of the monitoring visit. The reports include the following categories; finding, concern, recommendation, commendation and best practice.

Finding	A Finding can be a non-compliance with federal regulation or guidance, or a repeated or previously identified non-addressed correction or concern. Examples include misuse of funds, inadequate inventory control, inaccurate income eligibility determination, illegal procurement or insufficient insurance.
Concern	Concern is either a violation of guidance that is not a regulation, minor correction for the future or problems that may jeopardize the program. Examples include file omissions, failing to follow the state plan, policies and

	procedures or improper training of staff.
Recommendation	Recommendations are suggestions to assist with compliance, improve merits of the program or identification of opportunities for training and technical assistance (T&TA) or guidance. Improvement/Commendation is used if corrections have been made since the last monitoring visit.
Best Practice	Best Practice is used to compliment good work and potentially share with other network partners.

If there are findings, the relevant federal regulation, weatherization program notice (WPN) guidance or the grantee’s guidance document is cited. The Subgrantee then has 30 days to provide a written Corrective Action Plan (CAP) to DHCD. Corrective actions may also be requested for any concerns identified. For Subgrantees with findings additional monitoring visits may be scheduled. Files are maintained for all monitoring visits and are available for review by DOE.

DHCD maintains a tracking form listing the dates that each LWA was last monitored and whether or not there were any findings, concerns, recommendations, commendations or best practices. It also identifies whether or not the status of the review remains open or has been closed.

18. APPENDIX

18.1. EMPOWER APPROVED MEASURE LIST

Measure	Description	Technical Specifications	Unit of Measure	Price Cap per Unit
Home Energy Audit				
Re-testing for Tier 3 job	Perform diagnostic testing on home that was previously audited.	BPI Home Energy Auditing Standards	each	\$100.00
HEAT Tier 1 Home Energy Audit	Includes customer education Baseload energy model	BPI Home Energy Auditing Standards	each	\$300.00
HEAT Comprehensive Home Energy Audit	Includes customer education Full energy model required	BPI Home Energy Auditing Standards	each	\$400.00
Appliances and Baseload				
Replace Refrigerator/Freezer Combo, 10-14 cubic foot	Includes labor and material to install unit, remove, haul away and dispose of existing unit as per local/State code/laws. Replace existing appliance of comparable size that is 10 years or older	* Energy Star certified * CEE qualified * One year manufacturer warranty	each	\$644.00
Replace Refrigerator/Freezer Combo, 14.5-18 cubic foot	Includes labor and material to install unit, remove, haul away and dispose of existing unit as per local/State code/laws. Replace existing appliance of comparable size that is 10 years or older	* Energy Star certified * CEE qualified * One year manufacturer warranty	each	\$733.00
Replace Refrigerator/Freezer Combo, 18.5-22 cubic foot	Includes labor and material to install unit, remove, haul away and dispose of existing unit as per local/State code/laws. Replace existing appliance of comparable size that is 10 years or older	* Energy Star certified * CEE qualified * One year manufacturer warranty	each	\$980.00
Replace Refrigerator/Freezer Combo, 22.5-25 cubic foot	Includes labor and material to install unit, remove, haul away and dispose of existing unit as per local/State code/laws. Replace existing appliance of comparable size that is 10 years or older	* Energy Star certified * CEE qualified * One year manufacturer warranty	each	\$1,290.00
Upright Freezer, 12-16 cubic foot	Includes labor and material to install unit, remove, haul away and dispose of existing unit as per local/State code/laws. Replace existing appliance of comparable size that is 10 years or older	* Energy Star certified * CEE qualified * One year manufacturer warranty	each	\$680.00
Upright Freezer, 16.1-20 cubic foot	Includes labor and material to install unit, remove, haul away and dispose of existing unit as per local/State code/laws. Replace existing appliance of comparable size that is 10 years or older	* Energy Star certified * CEE qualified * One year manufacturer warranty	each	\$800.00
Chest Freezer, 3.5 - 6 cubic foot	Includes labor and material to install unit, remove, haul away and dispose of existing unit as per local/State code/laws. Replace existing appliance of comparable size that is 10 years or older	* Energy Star certified * CEE qualified * One year manufacturer warranty	each	\$175.00
Chest Freezer, 6.1 - 10 cubic foot	Includes labor and material to install unit, remove, haul away and dispose of existing unit as per local/State code/laws. Replace existing appliance of comparable size that is 10 years or older	* Energy Star certified * CEE qualified * One year manufacturer warranty	each	\$350.00
Chest Freezer, 10.1 - 16 cubic foot	Includes labor and material to install unit, remove, haul away and dispose of existing unit as per local/State code/laws. Replace existing appliance of comparable size that is 10 years or older	* Energy Star certified * CEE qualified * One year manufacturer warranty	each	\$580.00
Replace Existing Dehumidifier	Includes labor and material to install unit, remove, haul away and dispose of existing unit as per local/State code/laws. Replace existing appliance of comparable size that is 10 years or older	* Energy Star certified * CEE qualified * One year manufacturer warranty * Min. capacity of 70 pints	each	\$320.00
Replace Washing Machine	Includes labor and material to install unit, remove, haul away and dispose of existing unit as per local/State code/laws. Replace existing appliance of comparable size that is 10 years or older	* Energy Star certified * CEE qualified * One year manufacturer warranty	each	\$1,000.00

Replace Dishwasher	Includes labor and material to install unit, remove, haul away and dispose of existing unit as per local/State code/laws. Replace existing appliance of comparable size that is 10 years or older	* Energy Star certified * CEE qualified * One year manufacturer warranty	each	\$600.00
Replace Dryer	Includes labor and material to install unit, remove, haul away and dispose of existing unit as per local/State code/laws. Replace existing appliance of comparable size that is 10 years or older	* Energy Star certified * CEE qualified * One year manufacturer warranty	each	\$1,000.00
Install Advanced Power Strip	Includes installation and homeowner education.	* Master-controlled	each	\$35.00
Replace Ceiling Fan	Includes labor and material to install unit, remove, haul away and dispose of existing unit as per local/State code/laws. Replaces existing non-Energy Star ceiling fan	* Energy Star certified * One year manufacturer warranty	each	\$250.00
Replace Ceiling Fan w Lighting	Includes labor and material to install unit, remove, haul away and dispose of existing unit as per local/State code/laws. Replaces existing non-Energy Star ceiling fan	* Energy Star certified * LED lighting only * One year manufacturer warranty	each	\$300.00

Attic

Attic Hatch Treatment - R-19	Insulation, Weatherstripping, caulking trim, and mechanical fastening	* Materials must meet NFPA 275 ~ Standard Method of Fire Tests for the Evaluation of Thermal Barriers Used over Foam Plastic Insulation * Installation per SWS 4.1006.2	sf	\$20.00
Attic Hatch Treatment - R-30	Insulation, Weatherstripping, caulking trim, and mechanical fastening	* Materials must meet NFPA 275 ~ Standard Method of Fire Tests for the Evaluation of Thermal Barriers Used over Foam Plastic Insulation * Installation per SWS 4.1006.2	sf	\$24.00
Attic Hatch Treatment - R-38	Insulation, Weatherstripping, caulking trim, and mechanical fastening	* Materials must meet NFPA 275 ~ Standard Method of Fire Tests for the Evaluation of Thermal Barriers Used over Foam Plastic Insulation * Installation per SWS 4.1006.2	sf	\$27.50
Attic Hatch Treatment - R-49	Insulation, Weatherstripping, caulking trim, and mechanical fastening	* Materials must meet NFPA 275 ~ Standard Method of Fire Tests for the Evaluation of Thermal Barriers Used over Foam Plastic Insulation * Installation per SWS 4.1006.2	sf	\$30.00
Attic Knee Wall Door Treatment - R-13 Insulation	Insulation, Weatherstripping, caulking trim, and mechanical fastening	* Materials must meet NFPA 275 ~ Standard Method of Fire Tests for the Evaluation of Thermal Barriers Used over Foam Plastic Insulation * Installation per SWS 4.1006.2	each	\$70.00
Attic Knee Wall Door Treatment - R-19 Insulation	Insulation, Weatherstripping, caulking trim, and mechanical fastening	* Materials must meet NFPA 275 ~ Standard Method of Fire Tests for the Evaluation of Thermal Barriers Used over Foam Plastic Insulation * Installation per SWS 4.1006.2	each	\$75.00
Attic Pull Down Stair Cover - R-19	Install Tent or Cover, Insulation, (weatherstrip, and tight against the ceiling(barrell bolts/latch/etc..))	* Materials must meet NFPA 275 ~ Standard Method of Fire Tests for the Evaluation of Thermal Barriers Used over Foam Plastic Insulation - OR - Must meet NFPA 275 ~ Standard Method of Fire Tests for the Evaluation of Thermal Barriers Used over Foam Plastic Insulation * Installation per SWS 4.1006.1	each	\$140.00
Attic Pull Down Stair Cover - R-30	Install Tent or Cover, Insulation, (weatherstrip, and tight against the ceiling(barrell bolts/latch/etc..))	* Materials must meet NFPA 275 ~ Standard Method of Fire Tests for the Evaluation of Thermal Barriers Used over Foam Plastic Insulation - OR - Must meet NFPA 275 ~ Standard Method of Fire Tests for the Evaluation of Thermal Barriers Used over Foam Plastic Insulation * Installation per SWS 4.1006.1	each	\$150.00

Attic Pull Down Stair Cover - R-38	Install Tent or Cover, Insulation, (weatherstrip, and tight against the ceiling(barrell bolts/latch/etc..)	* Materials must meet NFPA 275 ~ Standard Method of Fire Tests for the Evaluation of Thermal Barriers Used over Foam Plastic Insulation - OR - Must meet NFPA 275 ~ Standard Method of Fire Tests for the Evaluation of Thermal Barriers Used over Foam Plastic Insulation * Installation per SWS 4.1006.1	each	\$155.00
Attic Pull Down Stair Cover - R-49	Install Tent or Cover, Insulation, (weatherstrip, and tight against the ceiling(barrell bolts/latch/etc..)	* Materials must meet NFPA 275 ~ Standard Method of Fire Tests for the Evaluation of Thermal Barriers Used over Foam Plastic Insulation - OR - Must meet NFPA 275 ~ Standard Method of Fire Tests for the Evaluation of Thermal Barriers Used over Foam Plastic Insulation * Installation per SWS 4.1006.1	each	\$175.00
Whole House Fan Treatment	Insulated box / cover over fan	* Materials must meet NFPA 275 ~ Standard Method of Fire Tests for the Evaluation of Thermal Barriers Used over Foam Plastic Insulation * Installation per SWS 4.1006.3	each	\$150.00
Install Knee Wall Insulation - R-13 Faced Batt	Remove existing insulation, if not salvageable. Price includes labor and material to attach unfaced batts as per SWS.	* Materials must meet ASTM C665 ~ Standard Specification for Mineral-Fiber Blanket Thermal Insulation * Installation per SWS 4.1004.2	sf	\$1.25
Non-insulating Air Barrier on Knee Wall	Install, secure, tape seams, air seal perimeter	* Materials must meet NFPA 275 ~ Standard Method of Fire Tests for the Evaluation of Thermal Barriers Used over Foam Plastic Insulation * Installation per SWS 4.1006.2c	sf	\$0.60
Insulation Attic Knee Wall Backing - EPS Foam Board Barrier 1" (Attic)	Install, secure, tape seams, air seal perimeter	* Materials must meet NFPA 275 ~ Standard Method of Fire Tests for the Evaluation of Thermal Barriers Used over Foam Plastic Insulation * Installation per SWS 4.1006.2c	sf	\$1.75
Insulation Attic Knee Wall Backing - EPS Foam Board Barrier 2" (Attic)	Install, secure, tape seams, air seal perimeter	* Materials must meet NFPA 275 ~ Standard Method of Fire Tests for the Evaluation of Thermal Barriers Used over Foam Plastic Insulation * Installation per SWS 4.1006.2c	sf	\$2.30
Insulation Attic Knee Wall Backing - EPS Foam Board Barrier 3" (Attic)	Install, secure, tape seams, air seal perimeter	* Materials must meet NFPA 275 ~ Standard Method of Fire Tests for the Evaluation of Thermal Barriers Used over Foam Plastic Insulation * Installation per SWS 4.1006.2c	sf	\$3.40
Insulation Attic Knee Wall Backing - Polyiso Foam Board Barrier 1" (Attic)	Install, secure, tape seams, air seal perimeter	* Materials must meet NFPA 275 ~ Standard Method of Fire Tests for the Evaluation of Thermal Barriers Used over Foam Plastic Insulation * Installation per SWS 4.1006.2c	sf	\$2.10
Insulation Attic Knee Wall Backing - Polyiso Foam Board Barrier 2" (Attic)	Install, secure, tape seams, air seal perimeter	* Materials must meet NFPA 275 ~ Standard Method of Fire Tests for the Evaluation of Thermal Barriers Used over Foam Plastic Insulation * Installation per SWS 4.1006.2c	sf	\$2.65
Insulation Attic Knee Wall Backing - Polyiso Foam Board Barrier 3" (Attic)	Install, secure, tape seams, air seal perimeter	* Materials must meet NFPA 275 ~ Standard Method of Fire Tests for the Evaluation of Thermal Barriers Used over Foam Plastic Insulation * Installation per SWS 4.1006.2c	sf	\$3.75
Insulation - Install R-11 Cellulose(Attic)	Install, junction box flags, insulation level rulers/markers, signed certificate of achieved R-value and install date	* Materials must meet ASTM C739 ~ Standard Specification for Cellulosic Fiber Loose-Fill Thermal Insulation * Installation per SWS 4.1005.2	sf	\$1.20
Insulation - Install R-11 Fiberglass(Attic)	Install, junction box flags, insulation level rulers/markers, signed certificate of achieved R-value and install date	* Materials must meet ASTM C764 ~ Standard Specification for Mineral Fiber Loose-Fill Thermal Insulation * Installation per SWS 4.1005.2	sf	\$1.25

Insulation - Install R-11 Dense Pack Cellulose under Storage Platform (Attic)	Install. Signed certificate of achieved R-value and install date	* Materials must Meet ASTM C739 ~ Standard Specification for Cellulosic Fiber Loose-Fill Thermal Insulation * Installation per SWS 4.1005.6	sf	\$2.25
Insulation - Install R-11 Dense Pack Fiberglass under Storage Platform (Attic)	Install. Signed certificate of achieved R-value and install date	* Materials must meet ASTM C764 ~ Standard Specification for Mineral Fiber Loose-Fill Thermal Insulation * Installation per SWS 4.1005.6	sf	\$2.30
Insulation - Install R-19 Cellulose(Attic)	Install, junction box flags, insulation level rulers/markers, signed certificate of achieved R-value and install date	* Materials must meet ASTM C739 ~ Standard Specification for Cellulosic Fiber Loose-Fill Thermal Insulation * Installation per SWS 4.1005.2	sf	\$1.45
Insulation - Install R-19 Fiberglass(Attic)	Install, junction box flags, insulation level rulers/markers, signed certificate of achieved R-value and install date	* Materials must meet ASTM C764 ~ Standard Specification for Mineral Fiber Loose-Fill Thermal Insulation * Installation per SWS 4.1005.2	sf	\$1.50
Insulation - Install R-19 Dense Pack Cellulose(Attic)	Install, junction box flags, insulation level rulers/markers, signed certificate of achieved R-value and install date	* Materials must Meet ASTM C739 ~ Standard Specification for Cellulosic Fiber Loose-Fill Thermal Insulation * Installation per SWS 4.1005.6	sf	\$2.85
Insulation - Install R-19 Dense Pack Fiberglass(Attic)	Install, junction box flags, insulation level rulers/markers, signed certificate of achieved R-value and install date	* Materials must meet ASTM C764 ~ Standard Specification for Mineral Fiber Loose-Fill Thermal Insulation * Installation per SWS 4.1005.6	sf	\$2.85
Insulation - Install R-30 Cellulose(Attic)	Install, junction box flags, insulation level rulers/markers, signed certificate of achieved R-value and install date	* Materials must meet ASTM C739 ~ Standard Specification for Cellulosic Fiber Loose-Fill Thermal Insulation * Installation per SWS 4.1005.2	sf	\$1.90
Insulation - Install R-30 Fiberglass(Attic)	Install, junction box flags, insulation level rulers/markers, signed certificate of achieved R-value and install date	* Materials must meet ASTM C764 ~ Standard Specification for Mineral Fiber Loose-Fill Thermal Insulation * Installation per SWS 4.1005.2	sf	\$1.90
Insulation - Install R-38 Cellulose(Attic)	Install, junction box flags, insulation level rulers/markers, signed certificate of achieved R-value and install date	* Materials must meet ASTM C739 ~ Standard Specification for Cellulosic Fiber Loose-Fill Thermal Insulation * Installation per SWS 4.1005.2	sf	\$2.30
Insulation - Install R-38 Fiberglass(Attic)	Install, junction box flags, insulation level rulers/markers, signed certificate of achieved R-value and install date	* Materials must meet ASTM C764 ~ Standard Specification for Mineral Fiber Loose-Fill Thermal Insulation * Installation per SWS 4.1005.2	sf	\$2.30
Insulation - Install R-49 Cellulose(Attic)	Install, junction box flags, insulation level rulers/markers, signed certificate of achieved R-value and install date	* Materials must meet ASTM C739 ~ Standard Specification for Cellulosic Fiber Loose-Fill Thermal Insulation * Installation per SWS 4.1005.2	sf	\$2.80
Insulation - Install R-49 Fiberglass(Attic)	Install, junction box flags, insulation level rulers/markers, signed certificate of achieved R-value and install date	* Materials must meet ASTM C764 ~ Standard Specification for Mineral Fiber Loose-Fill Thermal Insulation * Installation per SWS 4.1005.2	sf	\$2.80
Distribution				
Duct Insulation - R-8 Wrap	For ducting in unconditioned spaces (attic and crawls), foil faced fiberglass, will have a minimum of R-8	* Must meet SWS 4.1601.1	sf	\$2.35
Duct Sealing - Mastic	All accessible joints, seams, connections. Includes prices for mesh tape where needed and dictated by SWS	* Material must be UL181BM Rated * Installation per SWS5.31602.1	lf	\$2.10
Steam Pipe Insulation Minimum R-12.7	100% coverage, mitered corners, seams sealed. Minimum 2" thick with self sealing lap, R 12.7	* Must meet SWS 5.3104.3c	lf	\$5.15
Boiler Pipe Insulation - R-7 Wrap on Hot Water Boiler Pipes	100% coverage, mitered corners, seams sealed	* Must meet SWS 5.3104.3c	lf	\$5.15
Floors				
Crawlspace Hatch/Door - R-21 Insulation	If crawl is encapsulated or floor access from conditioned space only	* Must meet NFPA 275 ~ <i>Standard Method of Fire Tests for the Evaluation of Thermal Barriers Used over Foam Plastic Insulation</i>	each	\$140.00

Insulation - Install Polyiso Foam Board 1"	Rigid air barrier, mechanically fastened to underside of floor assembly, providing 100% coverage of the floor assembly, all seams sealed	* Must meet NFPA 275 ~ Standard Method of Fire Tests for the Evaluation of Thermal Barriers Used over Foam Plastic Insulation * Installation per SWS 4.1301.3	sf	\$2.10
Insulation - Install Polyiso Foam Board 2"	Rigid air barrier, mechanically fastened to underside of floor assembly, providing 100% coverage of the floor assembly, all seams sealed	* Must meet NFPA 275 ~ Standard Method of Fire Tests for the Evaluation of Thermal Barriers Used over Foam Plastic Insulation * Installation per SWS 4.1301.3	sf	\$2.65
Insulation - Install Polyiso Foam Board 3"	Rigid air barrier, mechanically fastened to underside of floor assembly, providing 100% coverage of the floor assembly, all seams sealed	* Must meet NFPA 275 ~ Standard Method of Fire Tests for the Evaluation of Thermal Barriers Used over Foam Plastic Insulation * Installation per SWS 4.1301.3	sf	\$3.75
Non-insulating Air Barrier on Crawl Ceiling	Installed as per manufacturer requirements	Must be manufacturer rated for horizontal use applications	sf	\$0.60
Insulation - Install Spray Foam 1"	Includes labor and materials for prep, installation and clean up. Use 2-Part, closed cell spray foam	* Must meet AC 377 ~ Acceptance Criteria for Spray-Applied Foam Plastic Insulation published by the International Code Council Evaluation Service (ICC-ES) * Installation per SWS 4.1301.9	sf	\$2.00
Insulation - Install Spray Foam 2"	Includes labor and materials for prep, installation and clean up. Use 2-Part, closed cell spray foam	* Must meet AC 377 ~ Acceptance Criteria for Spray-Applied Foam Plastic Insulation published by the International Code Council Evaluation Service (ICC-ES) * Installation per SWS 4.1301.9	sf	\$2.55
Insulation - Install Spray Foam 3"	Includes labor and materials for prep, installation and clean up. Use 2-Part, closed cell spray foam	* Must meet AC 377 ~ Acceptance Criteria for Spray-Applied Foam Plastic Insulation published by the International Code Council Evaluation Service (ICC-ES) * Installation per SWS 4.1301.9	sf	\$3.40
Insulation - Install R-11 Fiberglass Batt	Price includes labor and material to attach unfaced batts as per SWS	* Materials must meet ASTM C665 ~ Standard Specification for Mineral-Fiber Blanket Thermal Insulation * Installation per SWS 4.1301.1 and 4.1301.5	sf	\$1.16
Insulation - Install R-11 Dense Pack Cellulose	Price includes labor and materials to prep for dense packing at 3.5 lbs/cu. ft.	* Materials must meet ASTM C739 ~ Standard Specification for Cellulosic Fiber Loose-Fill Thermal Insulation * Installation per SWS 4.1301.4 and 4.1301.8	sf	\$2.25
Insulation - Install R-11 Dense Pack Fiberglass	Price includes labor and appropriate dense pack fiberglass materials to R-4/inch. Provide cut sheet for insulation.	* Materials must meet ASTM C764 ~ Standard Specification for Mineral Fiber Loose-Fill Thermal Insulation * Installation per SWS 4.1301.4 and 4.1301.8	sf	\$2.30
Insulation - Install R-13 Fiberglass Batt	Price includes labor and material to attach unfaced batts as per SWS	* Materials must meet ASTM C665 ~ Standard Specification for Mineral-Fiber Blanket Thermal Insulation * Installation per SWS 4.1301.1 and 4.1301.5	sf	\$1.28
Insulation - Install R-13 Dense Pack Cellulose	Price includes labor and materials to prep for dense packing at 3.5 lbs/cu. ft.	* Materials must meet ASTM C739 ~ Standard Specification for Cellulosic Fiber Loose-Fill Thermal Insulation * Installation per SWS 4.1301.4 and 4.1301.8	sf	\$2.25
Insulation - Install R-13 Dense Pack Fiberglass	Price includes labor and appropriate dense pack fiberglass materials to R-4/inch. Provide cut sheet for insulation.	* Materials must meet ASTM C764 ~ Standard Specification for Mineral Fiber Loose-Fill Thermal Insulation * Installation per SWS 4.1301.4 and 4.1301.8	sf	\$2.30
Insulation - Install R-19 Fiberglass Batt	Price includes labor and material to attach unfaced batts as per SWS	* Materials must meet ASTM C665 ~ Standard Specification for Mineral-Fiber Blanket Thermal Insulation * Installation per SWS 4.1301.1 and 4.1301.5	sf	\$1.63
Insulation - Install R-19 Dense Pack Cellulose	Price includes labor and materials to prep for dense packing at 3.5 lbs/cu. ft.	* Materials must meet ASTM C739 ~ Standard Specification for Cellulosic Fiber Loose-Fill Thermal Insulation * Installation per SWS 4.1301.4 and 4.1301.8	sf	\$2.85

Insulation - Install R-19 Dense Pack Fiberglass	Price includes labor and appropriate dense pack fiberglass materials to R-4/inch. Provide cut sheet for insulation.	* Materials must meet ASTM C764 ~ Standard Specification for Mineral Fiber Loose-Fill Thermal Insulation * Installation per SWS 4.1301.4 and 4.1301.8	sf	\$2.90
Insulation - Install R-30 Fiberglass Batt	Price includes labor and material to attach unfaced batts as per SWS	* Materials must meet ASTM C665 ~ Standard Specification for Mineral-Fiber Blanket Thermal Insulation * Installation per SWS 4.1301.1 and 4.1301.5	sf	\$1.90
Heating and Cooling				
Install Thermostat - Baseboard Heaters	Replacement, installed, tested and placed in service. Owner/operator education included in price. Replaces existing analog thermostat	* Minimum 1 year manufacturer warranty from date of install	each	\$200.00
Install Programmable Thermostat	Forced air or heat pumps only. Replacement must be installed, tested and placed in service. Owner/operator education required and included in price	* Energy Star certified * Minimum 1 year manufacturer warranty from date of install	each	\$225.00
Install Smart Thermostat	Forced air or heat pumps only. Replacement must be installed, tested and placed in service. Owner/operator education required and included in price	* Energy Star certified * Minimum 1 year manufacturer warranty from date of install	each	\$380.00
Clean and Tune - A/C	Includes inspection of electrical connections and refrigerant lines, vacuum coils and chemical clean as necessary, inspect and service all drains and condensate pump, check refrigerant level, test unit defrost if equipped, inspect safety devices, ensure proper insulation of refrigerant lines, lubricate motor and moving parts, clean and test thermostat, replace air filter, place sticker on the unit indicating service details.		each	\$225.00
Clean and Tune - Heat Pump	Includes inspection of electrical connections and refrigerant lines, vacuum indoor and outdoor coils and chemical clean as necessary, inspect and service all drains and condensate pump, check refrigerant level, test emergency heat system and unit defrost if equipped, inspect safety devices, ensure proper insulation of refrigerant lines, lubricate motor and moving parts, clean and test thermostat, replace air filter, place sticker on the unit indicating service details.		each	\$225.00
Clean and Tune - Natural Gas Heating System	Includes combustion efficiency and smoke tests before and after service, clean and vacuum system, inspect all control devices, test for gas leaks, clock gas meter, test manifold pressure, inspect for cracked heat exchanger, inspect electrical connections and safety devices, inspect chimney and smoke pipes and clean as necessary, inspect flue vent damper and draft controls, lubricate motor and moving parts, clean and test thermostat, replace air filter, place sticker on the unit indicating service details. If applicable, bleed radiators, clean and level sight glass. MEAP program only. BGE or MEAP only.		each	\$325.00

Clean and Tune - Oil Heating System	Includes combustion efficiency and smoke tests before and after service, clean and vacuum system, adjust air/fuel ratio, replace burner nozzle, inspect for cracked heat exchanger, seal evident air leaks, inspect fuel pump and fuel line, replace fuel filter, inspect electrical connections and safety devices, inspect chimney and smoke pipes and clean as necessary, inspect flue vent damper and draft controls, lubricate motor and moving parts, clean and test thermostat, replace air filter, place sticker on the unit indicating service details. If applicable, bleed radiators, clean and level sight glass. MEAP program only.		each	\$325.00
Furnace Replacement - Gas AFUE 80% (Output 45KBTU-75KBTU)	Only to be installed, where higher efficiency unit is not possible. Price includes all materials and labor to install, test and place unit in service under normal conditions. Permits, installing thermostats, and other repairs such as listed under health and safety or incidental repairs are priced separately.	* Minimum 1 year manufacturer warranty from date of install including a 10 year warranty on heat exchanger. * Installation per SWS 5.3002.1 *Permits as required by local jurisdiction having authority	each	\$2,510.00
Furnace Replacement - Gas AFUE 80% (Output higher than 75KBTU)	Only to be installed, where higher efficiency unit is not possible. Price includes all materials and labor to install, test and place unit in service under normal conditions. Permits, installing thermostats, and other repairs such as listed under health and safety or incidental repairs are priced separately.	* Minimum 1 year manufacturer warranty from date of install including a 10 year warranty on heat exchanger. * Installation per SWS 5.3002.1 *Permits as required by local jurisdiction having authority	each	\$2,900.00
Furnace Replacement - Gas AFUE 95% (Output 45KBTU-80KBTU)	Price includes all materials and labor to install, test and place unit in service under normal conditions. Permits, installing thermostats, and other repairs such as listed under health and safety or incidental repairs are priced separately.	* Minimum 1 year manufacturer warranty from date of install including a 10 year warranty on heat exchanger. * Installation per SWS 5.3002.1 *Permits as required by local jurisdiction having authority	each	\$3,330.00
Furnace Replacement - Gas AFUE 95% (Output higher than 80KBTU)	Price includes all materials and labor to install, test and place unit in service under normal conditions. Permits, installing thermostats, and other repairs such as listed under health and safety or incidental repairs are priced separately.	* Minimum 1 year manufacturer warranty from date of install including a 10 year warranty on heat exchanger. * Installation per SWS 5.3002.1 *Permits as required by local jurisdiction having authority	each	\$3,890.00
Gas Boiler Replacement - 85% AFUE (Output 40 - 80 KBTU)	Price includes all materials and labor to install, test and place unit in service under normal conditions. Permits, installing thermostats, and other repairs such as listed under health and safety or incidental repairs are priced separately.	* Minimum 10 year manufacturer warranty on tank from date of manufacture. * Minimum 1 year manufacturer warranty on parts from the date of purchase. * Installation per SWS 5.3002.1 *Permits as required by local jurisdiction having authority	each	\$5,000.00
Gas Boiler Replacement - 85% AFUE (Output higher than 80 KBTU)	Price includes all materials and labor to install, test and place unit in service under normal conditions. Permits, installing thermostats, and other repairs such as listed under health and safety or incidental repairs are priced separately.	* Minimum 10 year manufacturer warranty on tank from date of manufacture. * Minimum 1 year manufacturer warranty on parts from the date of purchase. * Installation per SWS 5.3002.1 *Permits as required by local jurisdiction having authority	each	\$5,500.00
Gas Boiler Replacement - 90%+ AFUE (Output 40 - 80 KBTU)	Price includes all materials and labor to install, test and place unit in service under normal conditions. Permits, installing thermostats, and other repairs such as listed under health and safety or incidental repairs are priced separately.	* Minimum 10 year manufacturer warranty on tank from date of manufacture. * Minimum 1 year manufacturer warranty on parts from the date of purchase. * Installation per SWS 5.3002.1 *Permits as required by local jurisdiction having authority	each	\$5,200.00

Gas Boiler Replacement - 90%+ AFUE (Output higher than 80 KBTU)	Price includes all materials and labor to install, test and place unit in service under normal conditions. Permits, installing thermostats, and other repairs such as listed under health and safety or incidental repairs are priced separately.	* Minimum 10 year manufacturer warranty on tank from date of manufacture. * Minimum 1 year manufacturer warranty on parts from the date of purchase. * Installation per SWS 5.3002.1 *Permits as required by local jurisdiction having authority	each	\$6,200.00
Heat Pump Replacement - ASHP (Output 24k/24k)	Price includes all materials and labor to install, test and place unit in service under normal conditions. Permits, installing thermostats, and other repairs such as listed under health and safety or incidental repairs are priced separately.	* HSPF9, SEER 16 * Minimum 1 year manufacturer warranty from date of install *Permits as required by local jurisdiction having authority	each	\$5,000.00
Heat Pump Replacement - ASHP (Output 36k/36k)	Price includes all materials and labor to install, test and place unit in service under normal conditions. Permits, installing thermostats, and other repairs such as listed under health and safety or incidental repairs are priced separately.	* HSPF9, SEER 16 * Minimum 1 year manufacturer warranty from date of install *Permits as required by local jurisdiction having authority	each	\$5,500.00
Heat Pump Replacement - ASHP (Output 48k/48k)	Price includes all materials and labor to install, test and place unit in service under normal conditions. Permits, installing thermostats, and other repairs such as listed under health and safety or incidental repairs are priced separately.	* HSPF9, SEER 16 * Minimum 1 year manufacturer warranty from date of install *Permits as required by local jurisdiction having authority	each	\$6,200.00
Central A/C Replacement - 2 ton	Price includes all materials and labor to install, test and place unit in service under normal conditions. Permits, installing thermostats, and other repairs such as listed under health and safety or incidental repairs are priced separately.	* SEER 16 * Minimum 1 year manufacturer warranty from date of install *Permits as required by local jurisdiction having authority	each	\$4,200.00
Central A/C Replacement - 3 ton	Price includes all materials and labor to install, test and place unit in service under normal conditions. Permits, installing thermostats, and other repairs such as listed under health and safety or incidental repairs are priced separately.	* SEER 16 * Minimum 1 year manufacturer warranty from date of install *Permits as required by local jurisdiction having authority	each	\$4,700.00
Central A/C Replacement - 4-5 ton	Price includes all materials and labor to install, test and place unit in service under normal conditions. Permits, installing thermostats, and other repairs such as listed under health and safety or incidental repairs are priced separately.	* SEER 16 * Minimum 1 year manufacturer warranty from date of install *Permits as required by local jurisdiction having authority	each	\$5,500.00
Ductless Mini-Split Heat Pump Replacement (Output 24k/24k)	Price includes all materials and labor to install, test and place unit in service under normal conditions. Permits, installing thermostats, and other repairs such as listed under health and safety or incidental repairs are priced separately.	* HSPF 9.0 or higher * SEER 17 or higher * Minimum 1 year manufacturer warranty from date of install *Permits as required by local jurisdiction having authority	each	\$6,100.00
Ductless Mini-Split Heat Pump Replacement (Output 36k/36k)	Price includes all materials and labor to install, test and place unit in service under normal conditions. Permits, installing thermostats, and other repairs such as listed under health and safety or incidental repairs are priced separately.	* HSPF 9.0 or higher * SEER 17 or higher * Minimum 1 year manufacturer warranty from date of install *Permits as required by local jurisdiction having authority	each	\$6,580.00
Ductless Mini-Split Heat Pump Replacement (Output 48k/48k)	Price includes all materials and labor to install, test and place unit in service under normal conditions. Permits, installing thermostats, and other repairs such as listed under health and safety or incidental repairs are priced separately.	* HSPF 9.0 or higher * SEER 17 or higher * Minimum 1 year manufacturer warranty from date of install *Permits as required by local jurisdiction having authority	each	\$7,350.00
Replace Window AC - 5000 - 7999 KBTU	Price includes all materials and labor to install, test and place unit in service. Includes evaluation of electrical recepticle the unit will be plugged into. Other repairs such as listed under health and safety or incidental repairs are priced separately.	* Energy Star certified * Minimum 1 year manufacturer warranty from date of install * CEE qualified	each	\$320.00

Replace Window AC - 8000 - 12000 KBTU	Price includes all materials and labor to install, test and place unit in service. Includes evaluation of electrical receptacle the unit will be plugged into. Other repairs such as listed under health and safety or incidental repairs are priced separately.	* Energy Star certified * Minimum 1 year manufacturer warranty from date of install * CEE qualified	each	\$400.00
Hot Water				
Install Faucet Aerators	Replace aerators if existing aerators are greater than 1.5 gpm. Ensure leakfree installation.	* 1.5 GPM or less	each	\$5.00
Install Low Flow Showerhead Fixed	Replace if existing showerhead is greater than 1.75 gpm. Ensure leakfree installation.	* 1.75 GPM or less	each	\$25.00
Install Low Flow Showerhead Handheld	Replace if existing showerhead is greater than 1.75 gpm. Ensure leakfree installation.	*1.75 GPM or less	each	\$35.00
Install Thermostatic Shutoff Valve	Install with existing or new showerhead. Ensure leakfree installation.	* Provide spec sheet	each	\$35.00
Adjust Water Heater Setting to 120 degrees	Set back temp if current temp exceeds 120 degrees F	* Set to 120 degrees	each	\$10.00
Install Water Pipe insulation (1/2-3/4").	Corners mitred and all seams taped	* Minimum requirement R-2, polyethylene.	If	\$1.25
Install Water Heater Blanket	Install per manufacturer specifications, tape all seams, label with DHW specifications	* R-11 for tanks in unconditioned spaces, R8 for other applications	each	\$65.00
Gas Water Heater Replacement - 30 Gallons	Replaces existing water heater of similar size. Price includes all materials and labor to install, test and place unit in service under normal conditions. Permits and other repairs such as listed under health and safety or incidental repairs are priced separately.	* Energy Star certified * 6 year manufacturer warranty *Permits as required by local jurisdiction having authority	each	\$1,150.00
Gas Water Heater Replacement - 50 Gallons	Replaces existing water heater of similar size. Price includes all materials and labor to install, test and place unit in service under normal conditions. Permits and other repairs such as listed under health and safety or incidental repairs are priced separately.	* Energy Star certified * 6 year manufacturer warranty *Permits as required by local jurisdiction having authority	each	\$1,300.00
Gas Water Heater Replacement - 80 Gallons	Replaces existing water heater of similar size. Price includes all materials and labor to install, test and place unit in service under normal conditions. Permits and other repairs such as listed under health and safety or incidental repairs are priced separately.	* Energy Star certified * 6 year manufacturer warranty *Permits as required by local jurisdiction having authority	each	\$1,550.00
Gas Tankless Water Heater Replacement - up to 5 GPM	Replaces existing water heater of similar size. Price includes all materials and labor to install, test and place unit in service under normal conditions. Permits and other repairs such as listed under health and safety or incidental repairs are priced separately.	* Energy Star certified * 6 year manufacturer warranty *Permits as required by local jurisdiction having authority	each	\$1,150.00
Gas Tankless Water Heater Replacement - up to 5.1 - 8 GPM	Replaces existing water heater of similar size. Price includes all materials and labor to install, test and place unit in service under normal conditions. Permits and other repairs such as listed under health and safety or incidental repairs are priced separately.	* Energy Star certified * 6 year manufacturer warranty *Permits as required by local jurisdiction having authority	each	\$1,300.00
Gas Tankless Water Heater Replacement - higher than 8 GPM	Replaces existing water heater of similar size. Price includes all materials and labor to install, test and place unit in service under normal conditions. Permits and other repairs such as listed under health and safety or incidental repairs are priced separately.	* Energy Star certified * 6 year manufacturer warranty *Permits as required by local jurisdiction having authority	each	\$1,550.00

Electric Water Heater Replacement - 30 Gallons	Replaces existing water heater of similar size. Price includes all materials and labor to install, test and place unit in service under normal conditions. Permits and other repairs such as listed under health and safety or incidental repairs are priced separately.	* Energy Star certified * 6 year manufacturer warranty *Permits as required by local jurisdiction having authority	each	\$800.00
Electric Water Heater Replacement - 50 Gallons	Replaces existing water heater of similar size. Price includes all materials and labor to install, test and place unit in service under normal conditions. Permits and other repairs such as listed under health and safety or incidental repairs are priced separately.	* Energy Star certified * 6 year manufacturer warranty *Permits as required by local jurisdiction having authority	each	\$875.00
Electric Water Heater Replacement - 80 Gallons	Replaces existing water heater of similar size. Price includes all materials and labor to install, test and place unit in service under normal conditions. Permits and other repairs such as listed under health and safety or incidental repairs are priced separately.	* Energy Star certified * 6 year manufacturer warranty *Permits as required by local jurisdiction having authority	each	\$1,050.00
Heat Pump Water Heater - 30 Gallons	Replaces existing water heater of similar size. Price includes all materials and labor to install, test and place unit in service under normal conditions. Permits and other repairs such as listed under health and safety or incidental repairs are priced separately.	* Energy Star certified * 6 year manufacturer warranty *Permits as required by local jurisdiction having authority	each	\$1,820.00
Heat Pump Water Heater - 50 Gallons	Replaces existing water heater of similar size. Price includes all materials and labor to install, test and place unit in service under normal conditions. Permits and other repairs such as listed under health and safety or incidental repairs are priced separately.	* Energy Star certified * 6 year manufacturer warranty *Permits as required by local jurisdiction having authority	each	\$1,970.00
Heat Pump Water Heater - 80 Gallons	Replaces existing water heater of similar size. Price includes all materials and labor to install, test and place unit in service under normal conditions. Permits and other repairs such as listed under health and safety or incidental repairs are priced separately.	* Energy Star certified * 6 year manufacturer warranty *Permits as required by local jurisdiction having authority	each	\$2,400.00
Infiltration				
Blower door guided air sealing	Includes window and door weatherstripping or hardware adjustment / repair, as needed	* Installation per SWS Section 3	CFM	\$0.85
Lighting				
LED - 11W A-type	Remove light fixture cover, remove existing bulb, Install new bulb, wipe fixture cover if needed, re-install fixture cover, recycle old bulb.	* Energy Star certified	each	\$6.20
LED - 11W R30	Remove light fixture cover, remove existing bulb, Install new bulb, wipe fixture cover if needed, re-install fixture cover, recycle old bulb.	* Energy Star certified	each	\$6.70
LED - 15W A-type	Remove light fixture cover, remove existing bulb, Install new bulb, wipe fixture cover if needed, re-install fixture cover, recycle old bulb.	* Energy Star certified	each	\$7.60
LED - 17W R40	Remove light fixture cover, remove existing bulb, Install new bulb, wipe fixture cover if needed, re-install fixture cover, recycle old bulb.	* Energy Star certified	each	\$8.04
LED - 5W Candle	Remove light fixture cover, remove existing bulb, Install new bulb, wipe fixture cover if needed, re-install fixture cover, recycle old bulb.	* Energy Star certified	each	\$5.91

LED - 6W Globe	Remove light fixture cover, remove existing bulb, Install new bulb, wipe fixture cover if needed, re-install fixture cover, recycle old bulb.	* Energy Star certified	each	\$5.86
LED - 9/11/15W 3-Way	Remove light fixture cover, remove existing bulb, Install new bulb, wipe fixture cover if needed, re-install fixture cover, recycle old bulb.	* Energy Star certified	each	\$7.60
LED - 9W A-type	Remove light fixture cover, remove existing bulb, Install new bulb, wipe fixture cover if needed, re-install fixture cover, recycle old bulb.	* Energy Star certified	each	\$5.19
LED - Recessed Trim Kit 11W	Remove light fixture cover, remove existing bulb, Install new bulb, wipe fixture cover if needed, re-install fixture cover, recycle old bulb.	* Energy Star certified	each	\$30.00
LED - Recessed Trim Kit 15W	Remove light fixture cover, remove existing bulb, Install new bulb, wipe fixture cover if needed, re-install fixture cover, recycle old bulb.	* Energy Star certified	each	\$35.00
TLED - 2ft	Remove light fixture cover, remove existing fluorescent lamp and ballast, install new lamp and driver, wipe fixture cover if needed, re-install fixture cover, recycle old lamp.	* DLC listed * Type C	each	\$30.00
TLED - 4ft	Remove light fixture cover, remove existing fluorescent lamp and ballast, install new lamp and driver, wipe fixture cover if needed, re-install fixture cover, recycle old lamp.	* DLC listed * Type C	each	\$40.00
Install Occupancy Sensor	Remove existing light switch and replace with IR occupancy or vacancy sensor. Adjust sensor settings per occupant preferences Install sensors only in agreement with homeowner.	* Sensor cannot have manual override. Provide spec sheet * PIR technology	each	\$65.00

Walls

Wall Insulation - Install Polyiso Foam Board 1"	Includes labor and material to install to SWS	* Materials must meet NFPA 275 ~ Standard Method of Fire Tests for the Evaluation of Thermal Barriers Used over Foam Plastic Insulation * Installation per SWS 4.1102.1	sf	\$2.10
Wall Insulation - Install Polyiso Foam Board 2"	Includes labor and material to install to SWS	* Materials must meet NFPA 275 ~ Standard Method of Fire Tests for the Evaluation of Thermal Barriers Used over Foam Plastic Insulation * Installation per SWS 4.1102.1	sf	\$2.65
Wall Insulation - Install Polyiso Foam Board 3"	Includes labor and material to install to SWS	* Materials must meet NFPA 275 ~ Standard Method of Fire Tests for the Evaluation of Thermal Barriers Used over Foam Plastic Insulation * Installation per SWS 4.1102.1	sf	\$3.75
Wall Insulation - Install R-11 Fiberglass Batt	Remove existing insulation, if not salvageable and approved by state. Price includes labor and material to attach unfaced batts as per SWS.	* Materials must meet ASTM C665 ~ Standard Specification for Mineral-Fiber Blanket Thermal Insulation * Installation per SWS 4.1102.1	sf	\$0.90
Wall Insulation - Install R-11 Dense Pack Cellulose	Price includes labor and materials to prep for dense packing at 3.5 lbs/cu. ft.. Drywall must be plugged and be finish ready after installation. In exterior application, siding must be re-installed	* Materials must meet ASTM C739 ~ Standard Specification for Cellulosic Fiber Loose-Fill Thermal Insulation * Installation per SWS 4.1103.1	sf	\$2.25
Wall Insulation - Install R-11 Dense Pack Fiberglass	Price includes labor and appropriate dense pack fiberglass materials as well as required prep work. Drywall must be plugged and be finish ready after installation. In exterior application, siding must be re-installed	* Materials must meet ASTM C764 ~ Standard Specification for Mineral Fiber Loose-Fill Thermal Insulation * Installation per SWS 4.1103.1	sf	\$2.30
Wall Insulation - Install R-13 Fiberglass Batt	Remove existing insulation, if not salvageable and approved by state. Price includes labor and material to attach unfaced batts as per SWS.	* Materials must meet ASTM C665 ~ Standard Specification for Mineral-Fiber Blanket Thermal Insulation * Installation per SWS 4.1102.1	sf	\$0.95

Wall Insulation - Install R-13 Dense Pack Cellulose	Price includes labor and materials to prep for dense packing at 3.5 lbs/cu. ft.. Drywall must be plugged and be finish ready after installation. In exterior application, siding must be re-installed	* Materials must meet ASTM C739 ~ Standard Specification for Cellulosic Fiber Loose-Fill Thermal Insulation * Installation per SWS 4.1103.1	sf	\$2.25
Wall Insulation - Install R-13 Dense Pack Fiberglass	Price includes labor and appropriate dense pack fiberglass materials as well as required prep work. Drywall must be plugged and be finish ready after installation. In exterior application, siding must be re-installed	* Materials must meet ASTM C764 ~ Standard Specification for Mineral Fiber Loose-Fill Thermal Insulation * Installation per SWS 4.1103.1	sf	\$2.30
Wall Insulation - Install R-19 Fiberglass Batt	Remove existing insulation, if not salvageable and approved by state. Price includes labor and material to attach unfaced batts as per SWS.	* Materials must meet ASTM C665 ~ Standard Specification for Mineral-Fiber Blanket Thermal Insulation * Installation per SWS 4.1102.1	sf	\$1.20
Wall Insulation - Install R-19 Dense Pack Cellulose	Price includes labor and materials to prep for dense packing at 3.5 lbs/cu. ft.. Drywall must be plugged and be finish ready after installation. In exterior application, siding must be re-installed	* Materials must meet ASTM C739 ~ Standard Specification for Cellulosic Fiber Loose-Fill Thermal Insulation * Installation per SWS 4.1103.1	sf	\$2.85
Wall Insulation - Install R-19 Dense Pack Fiberglass	Price includes labor and appropriate dense pack fiberglass materials as well as required prep work. Drywall must be plugged and be finish ready after installation. In exterior application, siding must be re-installed	* Materials must meet ASTM C764 ~ Standard Specification for Mineral Fiber Loose-Fill Thermal Insulation * Installation per SWS 4.1103.1	sf	\$2.90
Rim/Band Insulation - Install EPS Foam Board 1"	Includes labor and material to install to SWS	* Materials must meet NFPA 275 ~ Standard Method of Fire Tests for the Evaluation of Thermal Barriers Used over Foam Plastic Insulation * Installation per SWS 4.1401.2	sf	\$1.75
Rim/Band Insulation - Install EPS Foam Board 2"	Includes labor and material to install to SWS	* Materials must meet NFPA 275 ~ Standard Method of Fire Tests for the Evaluation of Thermal Barriers Used over Foam Plastic Insulation * Installation per SWS 4.1401.2	sf	\$2.30
Rim/Band Insulation - Install EPS Foam Board 3"	Includes labor and material to install to SWS	* Materials must meet NFPA 275 ~ Standard Method of Fire Tests for the Evaluation of Thermal Barriers Used over Foam Plastic Insulation * Installation per SWS 4.1401.2	sf	\$3.40
Rim/Band Insulation - Install Spray Foam 1"	Includes labor and material to install to SWS. Use 2-Part, closed cell spray foam	* Materials must meet AC 377 ~ Acceptance Criteria for Spray-Applied Foam Plastic Insulation published by the International Code Council Evaluation Service (ICC-ES) * Installation per SWS 4.1401.1	sf	\$2.00
Rim/Band Insulation - Install Spray Foam 2"	Includes labor and material to install to SWS. Use 2-Part, closed cell spray foam	* Materials must meet AC 377 ~ Acceptance Criteria for Spray-Applied Foam Plastic Insulation published by the International Code Council Evaluation Service (ICC-ES) * Installation per SWS 4.1401.1	sf	\$2.55
Rim/Band Insulation - Install Spray Foam 3"	Includes labor and material to install to SWS. Use 2-Part, closed cell spray foam	* Materials must meet AC 377 ~ Acceptance Criteria for Spray-Applied Foam Plastic Insulation published by the International Code Council Evaluation Service (ICC-ES) * Installation per SWS 4.1401.1	sf	\$3.45
Windows				
Window - Replace Glass/Pane up to 64 u.i.	Labor and materials to install window pane. Includes glazing points and glaze with a prime coat of paint		each	\$75.00
Window Sash Replacement	Labor and materials to install window sash. Includes glazing points and glaze with a prime coat of paint	* Low-E Rated * U-Factor of 0.30 or less * SGHC of 0.40 or less	each	\$200.00
Window Replacement	Labor and materials to install and average window up to size 3x5 ft	* Energy Star certified * Low-E Rated * U-Factor of 0.30 or less * SGHC of 0.40 or less	each	\$350.00

Mobile Homes

Mobile Home Belly Insulation - Dense Pack Fiberglass	Price includes labor and appropriate dense pack fiberglass materials to R-4/inch. Provide cut sheet for insulation.	* Materials must meet ASTM C764 ~ Standard Specification for Mineral Fiber Loose-Fill Thermal Insulation * Installation per SWS 4.1302.1 and 4.1303.1	sf	\$3.50
Mobile Home Roof Insulation - Dense Pack Fiberglass	Install. Signed certificate of achieved R-value and install date	* Materials must meet ASTM C764 ~ Standard Specification for Mineral Fiber Loose-Fill Thermal Insulation * Installation per SWS 4.1005.6	sf	\$2.50
Mobile Home Replacement Door	Remove existing door, install per manufacturer specifications.	* Energy Star certified * Installation per SWS 3.1203.3	each	\$475.00

Health and Safety Measure	Description	Technical Specifications	Unit of Measure	Price Cap per Unit
Heating and Cooling Repairs				
Air Filter Replacement	Price includes all materials and labor to install, test and place in service. Removal and disposal of existing filter, client education	Minimum MERV 8 Rating. Installed to manufacture specifications	each	\$25.00
Automatic Water Feeder Installation	Price includes all materials and labor to install, test and place in service. Removal and disposal of existing filter, client education	Installed to manufacture specifications and local code, permit (if required by code)	each	\$250.00
Barometric Draft Control Installation	Price includes all materials and labor to install, test and place in service. Includes piping modifications, other necessary parts to operate unit under normal conditions, and removal / disposal of existing damper, client education	Installed to manufacture specifications and local code, permit (if required by code)	each	\$150.00
Baseboard Heating Element Replacement	Price includes all materials and labor to install, test and place in service. Includes electrical and plumbing connections, other necessary parts to operate unit under normal conditions, removal / disposal of existing heating unit, client education	Performed / Installed to manufacture specifications and local code, permit (if required by code)	each	\$250.00
Blower Motor Replacement	Price includes all materials and labor to install, test and place in service. Includes electrical and plumbing connections, other necessary parts to operate unit under normal conditions, removal / disposal of existing damper, client education.	Installed to manufacture specifications and local code, permit (if required by code)	each	\$250.00
Boiler Leak Repair	Price includes all materials and labor to install, test and place in service. Includes electrical and plumbing connections, and other necessary parts to operate unit under normal conditions, removal / disposal of existing material, client education	Installed to manufacture specifications and local code, permit (if required by code)	NTE	\$190.00
Boiler Over Flow Pipe Installation	Price includes all materials and labor to install, test and place in service. Includes electrical and plumbing connections, and other necessary parts to operate unit under normal conditions, removal / disposal of existing over flow pipe, client education	Installed to manufacture specifications and local code, permit (if required by code)	each	\$75.00
Burner Replacement	Price includes all materials and labor to install, test and place in service. Includes electrical and plumbing connections, other necessary parts to operate unit under normal conditions, removal / disposal of existing burner, client education	Installed to manufacture specifications and local code, permit (if required by code)	each	\$720.00

Chimney Repairs	Price includes all materials and labor to install, test and place in service. Includes electrical and plumbing connections, other necessary parts to operate unit under normal conditions, removal / disposal of removed material, client education	Installed to manufacture specifications and local code, permit (if required by code)	NTE	\$450.00
Circulator Pump Installation	Price includes all materials and labor to install, test and place in service. Includes electrical and plumbing connections, other necessary parts to operate unit under normal conditions, removal / disposal of existing pump, client education.	Installed to manufacture specifications and local code, permit (if required by code)	each	\$325.00
Clean & Tune	For Natural gas systems in non-BGE territory, and propane and oil systems.	Refer to footnotes	each	\$325.00
Condensate Pump Installation	Price includes all materials and labor to install, test and place in service. Includes electrical and plumbing connections, piping modifications, other necessary parts to operate unit under normal conditions, and removal / disposal of existing pump, client education	Installed to manufacture specifications and local code, permit (if required by code)	each	\$80.00
Expansion Tank Installation	Price includes all materials and labor to install, test and place in service. Includes electrical and plumbing connections, other necessary parts to operate unit under normal conditions, removal / disposal of existing tank, client education	Installed to manufacture specifications and local code, permit (if required by code)	each	\$225.00
Flue Pipe Correction - Furnace	Price includes all materials and labor to install, test and place in service. Includes other necessary parts to operate unit under normal conditions, removal / disposal of existing material, client education.	Installed to manufacture specifications and local code, permit (if required by code)	NTE	\$250.00
Gas Line Repair	Price includes all materials and labor to install, test and place in service. Includes any other necessary parts to operate unit under normal conditions, removal / disposal of replaced materials, client education	Performed / Installed to manufacture specifications and local code, permit (if required by code)	NTE	\$400.00
Gas Valve Replacement	Price includes all materials and labor to install, test and place in service. Includes electrical and plumbing connections, other necessary parts to operate unit under normal conditions, removal / disposal of existing valve, client education	Installed to manufacture specifications and local code, permit (if required by code)	each	\$125.00

High Limit Switch Replacement	Price includes all materials and labor to install, test and place in service. Includes electrical and plumbing connections, other necessary parts to operate unit under normal conditions, removal / disposal of existing switch, client education	Installed to manufacture specifications and local code, permit (if required by code)	NTE	\$130.00
Ignition Transformer Replacement	Price includes all materials and labor to install, test and place in service. Includes electrical and plumbing connections, other necessary parts to operate unit under normal conditions, removal / disposal of existing transformer, client education	Installed to manufacture specifications and local code, permit (if required by code)	each	\$150.00
Make-Up Air Installation	Price includes all material and labor to provide make up air.	Installed to manufacture specifications and local code, permit (if required by code)	NTE	\$300.00
Miscellaneous Heating System Repairs	Price includes all materials and labor to install, test and place in service. Includes electrical and plumbing connections, other necessary parts to operate unit under normal conditions, removal / disposal of replaces material, client education	Installed to manufacture specifications and local code, permit (if required by code)	NTE	\$800.00
Power Vent Installation	Price includes all materials and labor to install, test and place in service. Includes electrical and plumbing connections, other necessary parts to operate unit under normal conditions, removal / disposal of existing vent, client education	Installed to manufacture specifications and local code, permit (if required by code)	each	\$356.00
Remove and cap supply duct from active chimney	Cap needs to be of approved material and sealed	Performed / Installed to manufacture specifications and local code, permit (if required by code)	NTE	\$250.00
Thermostat Replacement	For territories that don't cover gas measures or for oil or propane systems	Installed to manufacture specifications, Minimum 1 year manufacturer warranty from date of install	each	\$250.00
Heating and Cooling System Replacements				
Oil Furnace Replacement - AFUE 85% (Output 56 - 83 KBTU)	MEAP program only. Price includes all materials and labor to install, test and place in service. Includes electrical and plumbing connections, connecting thermostat, flue/piping, manual J, fliter, connect to plenums and other necessary parts to operate unit under normal conditions. Includes manufacturer warranty including a 10 year warranty on heat exchanger.	* Minimum 1 year manufacturer warranty from date of install including a 10 year warranty on heat exchanger. * Installation per SWS 5.3002.1	each	\$3,650.00

Oil Furnace Replacement - AFUE 85% (Output 84 - 94 KBTU)	MEAP program only. Price includes all materials and labor to install, test and place in service. Includes electrical and plumbing connections, connecting thermostat, flue/piping, manual J, fliter, connect to plenums and other necessary parts to operate unit under normal conditions. Includes manufacturer warranty including a 10 year warranty on heat exchanger.	* Minimum 1 year manufacturer warranty from date of install including a 10 year warranty on heat exchanger. * Installation per SWS 5.3002.1	each	\$4,150.00
Oil Furnace Replacement - AFUE 85% (Output 95 - 133 KBTU)	MEAP program only. Price includes all materials and labor to install, test and place in service. Includes electrical and plumbing connections, connecting thermostat, flue/piping, manual J, fliter, connect to plenums and other necessary parts to operate unit under normal conditions. Includes manufacturer warranty including a 10 year warranty on heat exchanger.	* Minimum 1 year manufacturer warranty from date of install including a 10 year warranty on heat exchanger. * Installation per SWS 5.3002.1	each	\$4,500.00
Oil Furnace Replacement - AFUE 85% (Output 134 - 150 KBTU)	MEAP program only. Price includes all materials and labor to install, test and place in service. Includes electrical and plumbing connections, connecting thermostat, flue/piping, manual J, fliter, connect to plenums and other necessary parts to operate unit under normal conditions. Includes manufacturer warranty including a 10 year warranty on heat exchanger.	* Minimum 1 year manufacturer warranty from date of install including a 10 year warranty on heat exchanger. * Installation per SWS 5.3002.1	each	\$4,700.00
Oil Boiler Replacement 85% AFUE (70 - 89 MBH)	MEAP program only. Price includes all materials and labor to install, test and place in service. Includes electrical and plumbing connections, piping modifications, connecting thermostat, manual J, and other necessary parts to operate unit under normal conditions. Includes 10 year minimum manufacturer warranty.	* Minimum 1 year manufacturer warranty from date of install including a 10 year warranty on heat exchanger. * Installation per SWS 5.3002.1	each	\$6,200.00
Oil Boiler Replacement 85% AFUE (90 - 110 MBH)	MEAP program only. Price includes all materials and labor to install, test and place in service. Includes electrical and plumbing connections, piping modifications, connecting thermostat, manual J, and other necessary parts to operate unit under normal conditions. Includes 10 year minimum manufacturer warranty.	* Minimum 1 year manufacturer warranty from date of install including a 10 year warranty on heat exchanger. * Installation per SWS 5.3002.1	each	\$6,700.00
Hot Water				

DHW Tank Replacement - Boiler Hot Water	Replaces existing water heater tank of similar size. Price includes all materials and labor to install, test and place in service. Includes electrical and plumbing connections, permits, and other necessary parts to operate unit under normal conditions.	Installed to manufacture specifications and local code, permit (if required by code)	each	\$1,200.00
Drip Tube Installation - DHW	Must be installed within 6" of the floor/pan	Installed to manufacture specifications and local code	each	\$15.00
Flue Pipe Correction - DHW	Price includes all materials and labor to install, test and place in service. Includes other necessary parts to operate unit under normal conditions, removal / disposal of existing material, client education.	Performed / Installed to manufacture specifications and local code, permit (if required by code)	NTE	\$250.00
Other Measures				
C/O Alarm Installation	UL listed with 10 year lithium battery, installed as per code	Installed to manufacture specifications and local code	ea	\$32.00
CO/Smoke Alarm Combination Install	UL listed with 10 year lithium battery, installed as per code	Installed to manufacture specifications and local code	ea	\$52.00
DHW Clean and Tune	Includes testing, cleaning of burners, adjusting gas control valve, making necessary adjustments for optimal performance	See Footnote	each	\$325.00
Miscellaneous Electrical Repairs	Minor electrical repairs as per code, only for issues that pose a crew/worker health and safety issue	Performed / Installed to manufacture specifications and local code, permit (if required by code)	NTE	\$100.00
Smoke Alarm Installation	UL listed with 10 year lithium battery, installed as per code	Installed to manufacture specifications and local code	ea	\$32.00
Stove Clean and Tune	Includes testing, cleaning of burners, adjusting gas control valve, making necessary adjustments for optimal performance	See Footnote	ea	\$150.00
Junction Box & Cover Installation	Install UL listed junction box and cover		each	\$49.00
Junction Box Cover Installation	Install UL listed junction box cover that is compatible with the existing box		each	\$2.00

Incidental Repair	Description	Technical Specifications	Unit of Measure	Price Cap per Unit
Infiltration / Insulation				
Bath Exhaust Fan - Vent Pipe	Install bath exhaust venting and termination		lf	\$4.50
Bath Exhaust Fan Installation	None present that vents to outside. Install fan, wiring, switch, venting up to 15ft, termination, insulation	* Energy Star * Meet ASHRAE requirements	each	\$475.00
Bath Exhaust Vent Insulation	Vent insulation only if vent is not buried in attic insulation	Insulated to R-8 minimum, must meet SWS standards	sf	\$2.25
Bath Fan Switch/Timer Installation	Bath fan Switch/Timer only	Meet ASHRAE requirements	each	\$75.00
Chimney Cap Installation	Chimney Cap	Secured to liner with appropriate fasteners, stainless steel construction	each	\$250.00
Condensate Line - Clean Out		open and not clogged, free of obstructions, no cracks, glued at joints, proper slope	each	\$20.00
Crawlspace Door Installation			each	\$35.00
Downspout Extender Installation	Verify that downspouts discharge rainwater at least 3 feet away from the home	mechanically attached to downspout, installed in a fashion that maintains a negative slope away from home	each	\$15.00
Dryer - Vent To Outside	Install dryer exhaust venting and termination	SWS	lf	\$4.50
Dryer Vent Insulation	Vent insulation only if vent is not buried in attic insulation	Insulated to R-8 minimum, must meet SWS standards	sf	\$2.25
Drywall Mud & Tape			sf	\$1.10
Existing Bath Exhaust Fan Replacement	Removal of existing fan, Install new fan, hook up to existing vent-wiring-switch	* Energy Star * Meet ASHRAE requirements	each	\$250.00
Existing Bath Fan Motor Replacement	Replacement of Bath Fan Motor Only		each	\$150.00
Existing Kitchen Exhaust Fan Replacement	Removal of existing fan, Install new fan, hook up to existing vent-wiring-switch	* Energy Star * Meet ASHRAE requirements	each	\$300.00
Existing Kitchen Fan Motor Replacement	Replacement of Kitchen Fan Motor Only		each	\$150.00
Exterior Door Replacement		Replace the door using an exterior-grade insulated door-blank or a pre-hung steel insulated door, unless the door opening isn't standard width or height. All replacement doors must have three hinges.	each	\$450.00
Exterior Wall Repair	10 sf or less		sf	\$15.00
Fascia Repair			NTE	\$300.00
Floor Repair	Minor 10sf or less		NTE	\$100.00
Gutter - Clean-out	If doing ES Attic Insulation.	Includes cleaning gutters, minor tree/branch trimming, clean-up, disposal/removal of debris from site	lf	\$2.00
Gutters/Downspout Repair	Ensure water does not enter attic area	Mechanically attached to house, strapping used where needed	lf	\$7.00

Kitchen Exhaust Fan Installation	None present that vents to outside. Install fan, wiring, switch, venting up to 15ft, termination, insulation	* Energy Star * Meet ASHRAE requirements	each	\$475.00
Kitchen Exhaust Fan To Outside - Vent Pipe	Install kitchen exhaust venting and termination		lf	\$4.50
Kitchen Exhaust Vent Insulation	Vent insulation only if vent is not buried in attic insulation	Insulated to R-8 minimum, must meet SWS standards	sf	\$2.25
Kitchen Fan Switch/Timer Installation	Kitchen fan Switch/Timer only	Meet ASHRAE requirements	each	\$75.00
Minor Asbestos Remediation			NTE	\$500.00
Minor Lead Remediation			NTE	\$500.00
Minor Mold Remediation ≤ 10sf			NTE	\$300.00
Minor Plumbing Repair			NTE	\$100.00
Minor Roof Leak Repair	Minor repairs include but not limited to: sealing at flashing, new boots/jacks, minor shingle replacement (<25 square feet),		NTE	\$300.00
Permits/Fees	Necessary permits for mechanical, electrical, plumbing and alterations.	Permits required by local jurisdiction having authority. Copy of permit and final inspection to be uploaded to Hancock	NTE	\$300.00
Soffit Repair			NTE	\$300.00
Sump Pump Lid/Cover	Lid or Cover only, UL listed, installed and fit to well opening		each	\$60.00
Sump Pump Replacement	Labor and materials to install Sump Pump as per code, with Lid or Cover		each	\$500.00
Vent Termination - Roof	Includes drilling, termination kit, patching and sealing.		each	\$125.00
Vent Termination - Masonry Wall	Includes drilling, termination kit, patching and sealing.		each	\$250.00
Vent Termination - Wood Wall	Includes drilling, termination kit, patching and sealing.		each	\$175.00
Window Well Cover Installation	Mechanically fastened to well	Sized appropriately, Mechanically fastened to well liner or home	each	\$15.00
Attic				
Attic Hatch / Stair Damming	Use of material that meets SWS standards (needs to be able to hold the weight of person entering attic)	Installation per SWS4.1006.1	sf	\$5.00
Attic Storage Removal			NTE	\$250.00
Attic/Kneewall Access Installation	Cut and frame only. Minimum requirements- cut sheetrock/plaster, frame/trim access opening , install 1/2" CDX that acts as a dam for insulation that extends at minimum 3" above the settled insulation level. IR to attic hatch treatment. Prime for paint.		each	\$125.00
Baffles	ADO Products UDVB2346 Attic Vent Channel or equivalent		each	\$3.50

Batt Insulation Removal	Only if existing insulation is unsalvageable. REQUIRES STATE APPROVAL		sf	\$1.23
Blown Insulation Removal	Only if existing insulation is unsalvageable. REQUIRES STATE APPROVAL		sf	\$1.25
Duct Insulation Removal	IR to Duct Sealing when needed		sf	\$0.25
Drywall Reinforcement - Attic	Resecure / reinforce existing drywall to support insulation with screws and compound		sf	\$0.45
Flue Pipe Damming	Use of metal damming that meets SWS standards	4.1001.3	sf	\$15.00
Install / Build / Relocate Attic Platform	Minimum spec- 3/4" CDX, 2x6 framing 16"o.c. with rigid dam at perimeter		sf	\$5.00
Install Junction Box Cover Installation - Attic	When needed in Attic where insulation will come in contact		each	\$49.00
Junction Box & Cover Installation - Attic	When needed in Attic where insulation will come in contact		each	\$2.00
Knob & Tube Wiring Mitigation - Attic	Demo existing K&T and rewires as per code. Price includes all necessary fees and permits, necessary labor and materials.		NTE	\$800.00
Recessed Light Cover	Install, seal to drywall, ensure air tightness	The entire closure will maintain a 3" clearance between the closure and the fixture including wiring, box, and ballast. Must be UL listed and fire rated for minimum 2-hour PSF	each	\$23.50
Replace Roof Stack Boot 2" Replacement			each	\$50.00
Replace Roof Stack Boot 3" Replacement			each	\$56.00
Replace Roof Stack Boot 4" Replacement			each	\$62.37
Roof Stack Boot 1 1/2" Replacement			each	\$48.50
Whole House Fan Damming			each	\$124.00
Whole House Fan Removal	Remove, dispose of, repair drywall to paint ready		each	\$250.00
Distribution				
Registers - Replace			each	\$20.00
Floor				
Crawl Space Storage Removal			NTE	\$250.00
Vapor Barrier Installation	Install Vapor Barrier, Mech fasten		sf	\$0.70
Low Height Crawl Space Treatment	This incidental cost can be added to any treatment of a floor above / a wall treatment in a crawl space that is 2ft or less in height.		sf	\$0.50
Heating and Cooling				
Ductless Mini-Split Additional Feed	This incidental cost can be added to a ductless mini-split energy measure for each additional feed that is connected to the system		each	\$350.00

Mobile Homes				
Aluminum Fibered Roof Coating	Install per ASTM D2824(M)		sf	\$1.10
Belly Repair	! Not caused by crew!		sf	\$1.50
AcrylicWhite Roof Coating	INstall per ASTM D6083-05e1		sf	\$1.25
Wall				
Drywall Reinforcement - Wall	Resecure / reinforce existing drywall to support dense-pack insulation		sf	\$0.15
Knob & Tube Wiring Mitigation - Wall	Other than Attic	REQUIRES STATE APPROVAL	NTE	\$800.00