West Virginia Weatherization Assistance Program (WAP) Plan

Fiscal Year 2018 – 2019

WEST VIRGINIA Department of Health & Human Resources
BUREAU FOR CHILDREN & FAMILIES

State of West Virginia Development Office
Low-Income Home Energy Assistance Program (LIHEAP)

West Virginia Department of Health and Human Resources
Weatherization Assistance Program
Scope of Work

Introduction

The purpose of the Low-Income Home Energy Assistance Program (LIHEAP) Weatherization Assistance Program (WAP) is to increase the energy efficiency of dwellings occupied by low-income persons, targeting the elderly, people with disabilities, and families with children, while ensuring their health and safety.

Performance Objectives:

1. The WV WAP will weatherize low-income homes to make them energy efficient, thereby reducing the energy burden and fuel costs, while improving the health and safety of program recipients.

2. LIHEAP funds will follow all United States Department of Energy (DOE) rules with the exception of additional components as described in this section as per LIHEAP IM 1999-11 Optional Use of DOE Weatherization Rules for LIHEAP Funds Spent on Weatherization.

3. There will not be a Health & Safety limit, but the West Virginia Development Office (WVDO) will have constant oversight. The Supplemental Programs, i.e., the Electrical Upgrades and Weatherization Related Home Repair will be performed when necessary on low-income homes to enable regular weatherization program measures to be installed on homes that could not receive full weatherization services without those repairs. These weatherization related services are all aimed at providing maximum energy efficiency, conservation, and related health and safety services to low-income households.

4. Client eligibility is based on DOE WAP eligibility for clients, as allowed in LIHEAP IM 1999-11 Optional Use of DOE Weatherization Rules for LIHEAP Funds Spent on Weatherization.

5. With more advanced diagnostics and installation techniques utilized in the WV WAP, it is increasingly necessary to take steps to ensure that program measures do not cause or exacerbate health and safety problems for workers or clients. FY 2019 LIHEAP-WX Program Operation funds may be used for Health and Safety (H&S) Expenditures which is the cost of eliminating health and safety hazards; elimination of which is necessary before the installation of weatherization materials. WVDO will have constant oversight in regard to subrecipient spending for health and safety measures and expenses.

Activities:

Conduct the following activities during the grant period:

- Execute Subrecipient Grant Agreements with 11 West Virginia community action agencies to operate the Weatherization Assistance Program in all 55 counties of West Virginia;
- Operate the WV WAP within rules and regulations established by United States Department of Energy (DOE) rules and regulations with the exception of the items as described under Performance Objectives, as well as LIHEAP rules and regulations;
- Provide training and technical assistance to program subrecipients;
- Monitor program subrecipients and a sample of job sites to ensure quality control; and
- Ensure subrecipient agencies are accountable, in compliance with program rules and performance measures, and work is performed in accordance with the WV WAP Standard Work Specifications, and the LIHEAP-WX Grant Agreements.

Performance Measures:

1. Number of homes weatherized, including identified target groups
2. Number of homes receiving Emergency Crisis Intervention Program assistance
3. Copy of monitoring reports
4. Monthly reporting data as required including demographics as well as “Restoration and Prevention” data

West Virginia Department of Health and Human Resources

Weatherization Related Home Repair Component

A stipulation of a dwelling receiving Weatherization Assistance Program (WAP) services is that the dwelling must be structurally capable to receive Weatherization Program measures. Since regulations intend WAP funds to be used for energy efficiency and conservation measures, only very limited dwelling repair**s** are allowed. As a result, sometimes higher priority measures cannot be installed and/or dwellings must be determined as "beyond the scope of Weatherization" and services deferred. The West Virginia Department of Health and Human Resources (DHHR) supplemental component may enable additional repairs so dwellings that could previously not receive weatherization services can now be given all needed cost-effective energy efficient measures.

Only repairs that enable regular Weatherization Program services to be performed are allowable.

Identified repairs include:

- Roof repair to prevent moisture damage and enable attic insulation;
- Ceiling repair to correct thermal boundaries, reduce air infiltration or enable attic insulation;
- Interior and exterior wall repairs to stop air infiltration and enable installation of wall insulation;
- Floor repairs to enable a tight and continuous air and thermal boundary;
- Repairs to chimneys and flues for proper exhaust of combustion gases;
- Repairs to external gas and oil lines so service to primary heating equipment can be enabled; and
- Plumbing repairs to leaking pipes or fixtures to prevent moisture damage and costly waste of water.

Guidelines include:

- Only repairs that enable regular Weatherization Assistance Program measures to be performed will be allowable.
- This DHHR component is to be used for repairs that could not have been made with regular DOE/DHHR WAP funds and would have prevented high priority weatherization measures from being installed. If a repair measure is justified in the energy audit, then regular WAP funds can pay for the repair as part of the measure.
- If the repair measure is not justified with the energy audit, and the cost estimate of the repair/upgrade is $10,000 or less **and** the repairs are all included in the identified repair measures listed above, the subrecipient can proceed as necessary.
- If the cost estimate of the upgrade is more than $10,000 **or** any of the repairs are not one of the identified repair measures listed above, an e-mail must be sent to the West Virginia Development Office (WVDO) including a thorough description of the work needed,

justification as to how it will enable installation of weatherization measures, and the estimated cost. WVDO staff will evaluate the project and send approval or denial by e-mail to the subrecipient. Work should not start until approval is received.

- The subrecipient must have a contract in place with any contactor performing Home Repair work, with all required provisions, safeguarding the federal funds as well as ensuring the work is performed in compliance with all applicable federal and state WV WAP requirements.

Reporting

- The WX Related Home Repair Work Plan must be completed in the database management system.

Any Energy Crisis Intervention Program, Weatherization Related Home Repair, or Electrical Upgrade DHHR funds that are not used on these Supplemental Programs, must be reallocated to Program Operations and used for production by the end of the current approved DHHR Grant period.

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Supplemental Programs - Electrical Upgrade Component

The DHHR supplemental component will include an electrical upgrade component for electrical upgrades to enable agencies to hire licensed electricians to perform electrical work necessary so that regular weatherization measures can be performed.

Identified Upgrade Measures

- Service entrance upgrade and/or grounding upgrade - Many older homes, particularly mobile homes, have insufficient amperage in the service entrance and cannot have new electrical heating systems installed without service upgrades. Often these homes have inadequate grounding capacity. The Electrical Upgrade Component would increase electrical capacity in the home to meet demand and ensure proper grounding to National Electric Code standards.
- Panel box upgrade - Older homes still have old fuse boxes instead of breaker boxes and likewise have insufficient capacity to operate modern heating equipment. The Electrical Upgrade Component would install new 200 amp breaker boxes where needed to enable the installation of modern heating or cooling equipment.
- Knob and tube wiring - Some older homes have faulty wiring that make the installation of attic or wall insulation unsafe. Typically this older wiring is knob and tube wiring. National Electric code prohibits installing insulation that covers this wiring. The Electrical Upgrade Component would install new appropriate wiring in attics that could not be insulated because of faulty wiring and will consider upgrades when reasonable of knob and tube wiring in walls to enable sidewall insulation.

Rules for electrical upgrades include:

- All electrical upgrades must be performed by licensed electricians. The subrecipient must have a contract in place with the licensed electrician with all required provisions, safeguarding the federal funds as well as ensuring the licensed electrician performs the work according to electrical code, and in compliance with any additional federal, state, county, or city requirements. The agency should maintain a copy of the electrician's license in their records.
- If the cost estimate of the upgrade is $3,000 or less **and** the upgrade is one of the three identified upgrade measures listed above, the subrecipient can proceed as necessary.
- If the cost estimate of the upgrade is more than $3,000 **or** the upgrade is not one of the three identified upgrade measures listed above, then an e-mail must be sent to the West Virginia Development Office (WVDO) including a thorough description of electrical work needed, justification as to how it will enable installation of weatherization measures, and the estimated cost. WVDO staff will evaluate the project and send approval or denial by e-mail to the subrecipient. Work should not start until approval is received.

Reporting

The Electrical Upgrade Work Plan must be completed in the database management system.

Any Energy Crisis Intervention Program, Weatherization Related Home Repair or Electrical Upgrade DHHR funds that are not used on these Supplemental Programs, must be reallocated to Program Operations and used for production by the end of the current approved DHHR Grant period.

Updated Materials Additions, Edits and Classifications to the previous Materials Chart 05-11-2016

Heating ECM:

Direct materials for Energy Conservation Measure:

- No updates

Ancillary Items (Cost must be included in SIR for associated individual ECM):

These items are usually needed to complete a new system or replacement installation. Most often, existing or leftover parts of the old system being replaced are in insufficient condition or do not meet the new system manufacturer or industry standards. Not using new upgraded parts could result in the voiding the warranty of a new system. These items would be included in the cost of the Heating ECM.

- whip kit
- electrical disconnect
- pipe insulation (suction and condensate line)
- floor protection for gas direct vent space heater
- electric heat strip (new heat pump)
- refrigerant lines
- refrigerant
- brazing rods

Incidental Repair Measure (IRM) (Cost must be included in the SIR for the whole unit package of ECM)

The following are associated with the direct materials for Energy Conservation Measure heating system repair. The items are necessary for the effective performance or preservation of the ECM heating system repair and are necessary to ensure the lifetime of the ECM of heating system repair.

- prefabricated metal duct
- blower motor
- contactor
- fan switch
- limit
- transformer
- coil cleaner
- filter grills
- floor register
- furnace filter
- oil nozzles

Cooling ECM:

Direct materials for Energy Conservation Measure:

As with heating and mentioned as a Standard for Conformance in Appendix A, there is significant energy savings that result from cooling system clean/tune and cooling system repair. If you can't condition air properly, the system must run longer cycles or the occupants will add additional appliances (costs) to get the same comfort level at additional costs. Labor is the biggest cost of these measure but the return in energy savings is plenty enough to justify the measures being performed.

- cooling system clean/tune
- cooling system repair

Ancillary Items (Cost must be included in SIR for associated individual ECM):

As with heating systems, these items are usually needed to complete a new system or replacement installation. Most often, existing or leftover parts of the old system being replaced are in insufficient condition or do not meet the new system manufacturer and/or industry standards. Not using new upgraded parts could result in the voiding the warranty of a new system. These items would be included in the cost of the Cooling ECM.

- breaker
- whip kit
- electrical disconnect
- filter grill
- pipe insulation (suction line)
- brazing rods

Incidental Repair Measure (IRM) (Cost must be included in the SIR for the whole unit package of ECM)

The following are associated with the direct materials for Energy Conservation Measure cooling system repair. The items are necessary for the effective performance or preservation of the cooling system repair ECM and are necessary to ensure the lifetime of the ECM of cooling system repair.

- prefabricated metal duct
- blower motor
- contactor
- transformer
- fan switch
- limit
- a-coil
- coil cleaner

Duct Sealing ECM:

Direct materials for Energy Conservation Measure:

When there are one or more sections of duct too damaged to repair or are completely missing, it

is more cost effective to replace duct sections with prefabricated duct, whether purchased from a manufacturer or fabricated onsite. Replacement of ducts are allowed in Appendix A Heating and Cooling System Repairs and Tune-Ups/Efficiency Improvements.

- prefabricated metal duct

Ancillary Items (Cost must be included in SIR for associated individual ECM):

- No updates

Incidental Repair Measure (IRM) (Cost must be included in the SIR for the whole unit package of ECM)

- No updates

<u>Duct Insulation ECM:</u>

Direct materials for Energy Conservation Measure:

Although foil faced duct wrap and vinyl duct wrap are already listed on the Materials Chart as direct materials for Energy Conservation Measure and appear as Heating and Cooling System Repairs and Tune-Ups/Efficiency Improvements, the minimum R-value is not indicated. The WV WAP SWS specifies that ducts that run through unconditioned spaces must be insulated to a minimum of R8.

- foil faced duct wrap - R8
- vinyl duct wrap - R8

Ancillary Items (Cost must be included in SIR for associated individual ECM):

- No updates

Incidental Repair Measure (IRM) (Cost must be included in the SIR for the whole unit package of ECM)

- No updates

<u>Attic Insulation ECM:</u>

Direct materials for Energy Conservation Measure:

- No updates

Ancillary Items (Cost must be included in SIR for associated individual ECM):

There are times that ceiling cavities and shed roofs must be accessed and blown from the interior of a house. The access holes must be sealed to form and air tight barrier from the inside to kept the insulation from migrating to the inside of the dwelling. These items will be included in the cost of the Attic Insulation ECM.

- ceiling plugs
- foam insulation board (when insulating knee walls)
- house wrap or fabric (when insulating knee walls)
- furring strips (when insulating knee walls)

- foam insulation board blocking (when insulating knee walls)

Incidental Repair Measure (IRM) (Cost must be included in the SIR for the whole unit package of ECM)
There have been numerous incidents were jobs have been deferred due to minor roof leaks. The addition of this item is necessary for the effective performance or preservation of the Attic Insulation ECM and are necessary to ensure the lifetime of the Attic Insulation ECM.

- minor roof repair of leaking roof (ONLY when insulation is required)

<u>Dense Pack (Wall) ECM:</u>
Direct materials for Energy Conservation Measure:

- No updates

Ancillary Items (Cost must be included in SIR for associated individual ECM):
Two-part foam is often used to seal around and hold blocking in place at the top and bottom balloon as with knee walls and is used to seal random bypasses that would allow cellulose to migrate into crawlspaces, basements and attics.

- Two-part foam

Incidental Repair Measure (IRM) (Cost must be included in the SIR for the whole unit package of ECM)
There are times when roof leak damage to sidewall can result in the referral of a job because the situation would make dense pack side wall insulation ineffective. The addition of this item is necessary for the effective performance or preservation of the Dense Pack (Wall) insulation ECM and are necessary to ensure the lifetime of the Dense Pack (Wall) insulation ECM.

- minor roof repair of leaking roof that may create moisture/mold issue in new wall insulation (ONLY when insulation is required)

<u>Non-Dense Pack ECM:</u>
Direct materials for Energy Conservation Measure:

- No updates

Ancillary Items (Cost must be included in SIR for associated individual ECM):

- No updates

Incidental Repair Measure (IRM) (Cost must be included in the SIR for the whole unit package of ECM)
There have been numerous incidents were jobs have been deferred due to minor roof leaks. The addition of this item is necessary for the effective performance or preservation of the Non-Dense Pack ECM and are necessary to ensure the lifetime of the Non-Dense Pack ECM.

- minor roof repair of leaking roof (ONLY when insulation is required)

Floor Treatment ECM:

Direct materials for Energy Conservation Measure:

- No updates

Ancillary Items (Cost must be included in SIR for associated individual ECM):

- No updates

Incidental Repair Measure (IRM) (Cost must be included in the SIR for the whole unit package of ECM)

There have been times the entire floor hasn't been insulated or jobs have been deferred due to plumbing leaks. The addition of this item is necessary for the effective installation, performance or preservation of the Floor Treatment ECM and are necessary to ensure the lifetime of the Floor Treatment Pack ECM.

- plumbing leak repair (when floor is insulated)

Energy Improvement ECM:

Direct materials for Energy Conservation Measure:

Boiler distribution pipe insulation should have been listed on the original Materials Chart. Boiler distribution pipe insulation is in Appendix A under Thermal Insulating Materials for Pipes, Ducts, and Equipment Such as Boilers and Furnaces.

- boiler distribution pipe insulation-preformed

Ancillary Items (Cost must be included in SIR for associated individual ECM):

- No updates

Incidental Repair Measure (IRM) (Cost must be included in the SIR for the whole unit package of ECM)

There have been times that pipes haven't been insulated due to plumbing leaks. The addition of this item is necessary for the effective installation, performance or preservation of the pipe insulation ECM and are necessary to ensure the lifetime of the pipe insulation ECM.

- water leak repair (only when pipes are insulated)

Other Health & Safety

Health & Safety Measure (Separate cost justification, not included in SIR)

When running dryer exhaust and bathroom exhaust through unconditioned areas, the R-value of the duct shall be insulated to a minimum of minimum of R8.

- R8 exhaust vent duct