

Weatherization Assistance Program

Annual Base Grant

U.S. Department of Energy

Federal Program Year 2011

April 1, 2011 – March 31, 2012



Grant Application

by

Department of Natural Resources and Environmental Control

Division of Energy and Climate

Public Hearing Draft – August 11, 2011

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Overview: Delaware Weatherization Assistance Program Program Year 2011 Base Grant

Introduction

The Weatherization Assistance Program (WAP) of the U.S. Department of Energy (DOE) reduces the energy costs for low-income households by increasing the energy efficiency of their homes. In addition, the program makes people's homes healthier, safer, and more comfortable. The DOE estimates that the average household saves \$437 per year on their energy costs after receiving weatherization services. WAP provides an opportunity to significantly reduce the fuel assistance needed by low-income households, who spend over 14% of their total annual income on energy costs alone. Weatherization is a highly cost-effective investment: for every \$1 invested in the program, WAP returns an estimated \$2.5 to the household and society.

New Program Direction

During Program Year 2010, and continuing through this current Program Year 2011, the WAP has been in the process of transitioning from the Department of Health and Social Services (DHSS) to the Department of Natural Resources and Environmental Control's (DNREC). This transition has been a long one, and full of significant program developments, changes and enhancements as noted below.

- **New Policies And Procedures** - During the course of the last year, DNREC has engaged outside consultants and DOE experts in developing new policies and procedures for all aspects of the WAP.
- **New Contractors** – During late 2010 and early 2011, DNREC, on behalf of Neighborhood House and First State Community Action Agency (our local agency subgrantees), conducted a thorough Request for Proposal Process looking for contractors to work in the new Delaware program. Dozens of local and regional contractors responded and many have now been hired by the Subgrantees to perform tasks under the new program – and according to the new Policies and Procedures.
- **Extensive Training** – Following selection of the new contractors, DNREC brought in training contractors from DOE approved regional Weatherization Training Centers and provided extensive hands on training to weatherization auditors, installation contractors and crew chiefs, HVAC technicians and specialized training in mobile home weatherization tactics and lead safe work practices. Additional training will be scheduled as needed and continuing education requirement established in the long term for the program during future program years
- **Robust Oversight** – One of the problems from the past was a lack of oversight of contractors in the field. DNREC has now hired two new WAP inspectors who together have decades of experience in energy and weatherization science. These two inspectors, along with similar staff in each of the two subgrantee organizations are providing inspections of auditing work, installation practices and mentoring contractors in the field.

The Program Year 2011 Grant in Perspective

This grant application is Delaware's "Base Grant" Program Year 2011 application. DNREC received final word from DOE on the amount of federal funds to be expected this fiscal year on

June 18, 2011 and we have subsequently prepared this grant application to actually apply for the funds and allow us to expend them

This grant is, however, one of now three separate federal DOE WAP grants that DNREC is administering – the other two being the Program Year 2010 Base Grant (which was extended by DOE into 2012) and Delaware’s WAP ARRA Grant. This current 2011 base grant application needs to be read and understood in concert with the other two, and all need to be simultaneously administered. All three will also expire on March 31, 2012 at which point Delaware’s WAP will continue under authorization provided by our federal program Year 2012 grant, the funding level for which is currently under consideration by Congress.

Our primary focus for this program year will be to continue to build and refine our new program, and to ensure the funds coming to the Delaware WAP through the American Recovery and Reinvestment Act (ARRA) are spent correctly and completely, in that order, prior to the end of the ARRA award. With this PY 2011 base award, we are provided the new and additional ability to weatherize new clients beyond those we are serving under our ARRA award. Correctly and completely spending the ARRA award is however, our first priority, which may necessitate delays in expending PY 2011 funds and result in carryover funds in 2012. This is not our intention, but is a strong possibility.

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STATE PLAN/MASTER FILE WORKSHEET

Identification Number: EE0000154, State: DE, Program Year: 2011

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

III.1 Eligible Population

III.1.1 General Description

Definition of income used to determine eligibility:

The State of Delaware defines eligibility for weatherization assistance as follows: A dwelling shall be eligible for weatherization assistance if it is occupied by a family whose income is at or below 200% of poverty level as determined and established by the Director of the Office of Management and Budget (OMB), and as modified by the American Reinvestment and Recovery Act Section 407 (440.22(a)1). "Categorically eligible" Dwelling Units are defined as follows:

1. A dwelling unit which contains a member who has received cash assistance payments under Title IV or XVI of the Social Security, or applicable State or local law, at any time during the 12 month period preceding the determination of eligibility for weatherization assistance is "categorically eligible" to receive weatherization services (440.22(a)2).
2. The State elects to make dwelling units eligible under the Low-Income Home Energy Assistance Act of 1981 (LIHEAP) "categorically eligible" for weatherization assistance (440.22(a)3). Delaware's eligibility for LIHEAP is determined at 200% of the OMB poverty income guidelines.
3. Native Americans are served in the general population and will be eligible to receive benefits equivalent to assistance provided to other low-income persons within the State.

There are two portals for application to the weatherization program

LIHEAP clients are "categorically eligible." Therefore, all applications taken for the LIHEAP program will include an option that clients may select to include weatherization services. A copy of this application must be included in the client's weatherization file.

Clients may also apply for weatherization services directly through the Catholic Charities, Inc. or other agencies or non-profits under contract to the State of Delaware to provide such services, or the subgrantees. In this case, the same or similar LIHEAP application will be filled out and the required eligibility documentation will be collected at the time of intake and included in the client file to verify eligibility.

Procedures to determine that units weatherized have eligibility documentation:

DNREC requires that all subgrantees maintain client files that document eligibility. Client files are available to DNREC for program evaluation and monitoring purposes. Files containing applications taken by Catholic Charities or other agencies duly authorized by the State to do so must include the corresponding income documentation. LIHEAP Fuel Assistance clients that are "categorically eligible" only need to have a scanned copy of the application from the LIHEAP Fuel Assistance Program indicating they are "categorically eligible." State staff will monitor files and check application dates to ensure that clients received services during the period of eligibility within one year of their application. The subgrantees are responsible for cross-checking all eligible households with the updated database of units that have been weatherized after September 30, 1994. DNREC and the subgrantees collaborate to maintain the database of previously weatherized units. Each agency is required to verify that the clients receiving weatherization services are income eligible and were income eligible during the time in which they received weatherization services. The agency is required to document services provided to the client and all costs associated with the completion of those services. To ensure that dwelling units are in fact eligible for weatherization services, subgrantees receive written procedures, policy updates, and information for ensuring compliance with 10 CFR 440.22 Eligible Dwelling Units. All documentation will be scanned or otherwise uploaded into

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STATE PLAN/MASTER FILE WORKSHEET (continued)

Identification Number: EE0000154, State: DE, Program Year: 2011

the new web-based Hancock database that will be implemented during the program year.

Definition of children: Below age 18

Recommend tribal organization(s) be treated as local applicant? No

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

In accordance with 440.16(f) the State requires that low-income members of an Indian tribe receive benefits equivalent to the assistance provided to other low-income persons within the state.

III.1.2 Selection of Areas to Be Served

Subgrantee selection was based on comment received at a public hearing pursuant to 10CFR 440.14 (a), and appropriate findings as outlined in 10 CFR 440.15 for prospective subgrantees.

III.1.3 Priorities

The State of Delaware's waiting list is comprised of eligible clients who have applied for the Low-Income Home Energy Assistance Program (LIHEAP), as well as the other eligibility opportunities previously outlined. The State of Delaware waiting list is prioritized for families to receive weatherization services and to maximize energy saved. Prioritized categories are the elderly and/or disabled, and households with children. DNREC's goal is to ensure that priority is given to "high residential energy users" and "households with a high energy burden," and is developing systems to facilitate the collection of data to allow for this in the near future. DNREC coordinates a single database of eligible clients and a single, transparent, and objective process is used for prioritizing the client priority list. The subgrantees are responsible for maintaining client files. DNREC closely monitors the subgrantees for adherence to the client priority list. Additionally, DNREC monitors for compliance of intake procedures and client eligibility. DOE requires that priority be given to elderly and/or disabled. In addition, DOE allows States to prioritize households with children. Owner occupied and renter occupied dwelling units have equal priority.

III.2 Climatic Conditions

Delaware's climatic data is based on a formula calculation found in the Statistical Abstract of the United States, published by the U.S. Bureau of the Census. The average number of annual heating and cooling degree-days in the State of Delaware is 4,937 and 1,046 respectively, which indicates relatively mild climatic conditions. There are only slight variations in the number of heating and cooling degree-days among the three counties of the State.

III.3 Weatherization Work

III.3.1 Type of Work to Be Done

DNREC ensures homes weatherized in Delaware receive the highest quality of work to maximize energy savings and long-term efficiency. The Delaware Weatherization Program accomplishes this by maintaining a well-trained staff to monitor work completed, as well as providing trainings for all weatherization staff, contractors, and their employees. To ensure that procedures are being properly applied, subgrantees receive administrative and technical training, along with field visits and enhanced training at the field site. State staff, subgrantees, and contractors are trained to strictly adhere to the priority list and the State Field Guide. To assist staff in accomplishing their work, DNREC and the subgrantees use up-to-date equipment

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STATE PLAN/MASTER FILE WORKSHEET (continued)

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such as new blower doors, digital gauges, and carbon monoxide detectors for their State and local staff.

Homes being weatherized, first receive extensive testing of combustion appliances to ensure family health and safety. Work is then assigned to the unit based on the specific recommendations from a rigorous energy audit performed on the unit. The subgrantees select contractors to complete the weatherization work based on the energy audit recommendations (which in turn are based on cost-effectiveness tests). Typical work completed on site-built homes include: testing for health and safety and for general heat waste, a rigorous energy audit, completing energy saving measures based on the audit, a final inspection to ensure that the work is of the highest quality, and client education, which plays a large role throughout the entire weatherization process. The following outlines some of the measures and testing with the types of work mentioned above. Health and Safety testing and measures include: conducting a visual test of the exterior and interior; installing smoke alarms and carbon monoxide (CO) detectors; and conducting a worse case CAZ test.

Building tightness limit shall be calculated and included as part of every client file. General heat waste testing and monitoring may include: duct sealing (as directed by blower door and pressure diagnostics); insulating ducts, closed floor cavities, open knee wall cavities, and open floor ceilings in unconditioned spaces; insulating open attic ceilings to R38; insulating floor cavities and sill boot areas in conditioned basements; water heater and furnace system treatments and tune-ups, lighting and base load measures (limit of \$50 in materials per home); refrigerator replacement (if situation meets requirements of the Delaware Field Guide); and other necessary weatherization materials or repairs (limited to \$400 total per home and only with the approval of the subgrantee). Work related to the energy audit may include: inspecting the home exterior and interior to determine the condition of the home for weatherization; testing heating systems; inspecting venting systems; evaluating efficiency; measuring heat rise; inspecting the home interior for health and safety, mold and moisture problems, large air leaks, and insulation levels; evaluating base load levels, such as measuring hot water temperature, counting incandescent lights, evaluating shower flow; measuring air leakage by conducting pressure pan tests and need for blower door at CFM 50 and recording readings and evaluating duct work.

A final inspection is completed for every unit in the Delaware Weatherization Assistance Program. . Lastly, client education is conducted throughout the weatherization process. Client education includes: providing information about the weatherization process and about what work is being done, the short- and long-term benefits of the work, about what is and what is not a qualified expense in the weatherization program, and about behavior change opportunities for residents to reduce their energy bills. While typical work on a mobile home is similar in many respects to the site-built units there are several differences that are important to note. The process for Health and safety testing and measures is the same as site-built homes. The mobile home energy audit and final inspection will follow the same process but with specific procedures for mobile homes. Client education is conducted throughout the weatherization process and is the same as with site-built homes. When testing for general heat waste many of the testing practices are similar but some differences include: insulating floor systems (belly blow); roof insulation (when appropriate); replacing interior storm windows to single pane glass primary primers or jalousie units (when appropriate); and replacement of deteriorated primary door units (when appropriate). DNREC allows for the replacement of incandescent bulbs with compact fluorescent (CFL) bulbs, if the lights are replaced in areas where the lights are left on for at least three hours a day. The projected 75% savings in electricity justify the cost of the CFL bulbs. Residents are educated about the energy savings with the CFL bulbs. These low cost measures are limited to \$50 in materials per home. Incidental repairs are performed in accordance with DOE guidelines, and prior approval from the subgrantees for material and labor costs over \$400.

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STATE PLAN/MASTER FILE WORKSHEET (continued)

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III.3.2 Energy Audit Procedures

DNREC is currently finalizing new energy audit and final inspection procedures. In order to help simplify and create consistency throughout the entire weatherization process, Delaware will shortly be applying to DOE to move away from the NEAT and MHEA audit tools and to instead rely on the HEAT tool which can then interface with our new Hancock WAP data system. This new computerized system will increase documentation, standardization, quality control, and objectivity in the program and foster a totally computer based auditing and monitoring system. The new audit and final inspection procedures will be approved by DOE prior to implementation and the new audits will be included in the training of all staff and participants. In the interim, the following tools will continue to be used.

<u>Unit Types</u>	<u>Audit Procedures and Dates Most Recently Approved by DOE</u>
Single-family	NEAT - February 24, 2004
Multi-family	N/A
Mobile Home	MHEA – February 24, 2004

III.3.3 Final Inspection

Each subgrantee is required to complete a final inspection of each unit weatherized. Final inspections are conducted by agency auditors (contract or staff) that are BPI certified and have completed the required State-sponsored auditor courses or, if employed as subgrantee staff have exhibited equivalent training and expertise in weatherization. The auditors must use State-approved procedures for energy audits and final inspections. Final inspections evaluate the work completed by the contractors to ensure that: a proper energy audit was completed; the measures recommended were contracted for; the work charged for was completed; and that all work was performed according to quality standards in the field. Additionally, the final inspection ensures that all health and safety issues were addressed in a manner which protects the client. Final Inspections include: post blower door readings at CFM 50; health and safety checks including Worst Case CAZ; checks of accuracy of measures charged against measures installed; and evaluations of the appropriateness of all work completed, including air sealing, insulation, client education, duct insulation, pressure differentials, and costs. A dwelling unit may not be reported as completed until a final inspection has been performed and it has been certified that the work is high quality, all materials have been properly installed, and approved procedures have been followed. Standardized forms are used to document the results of the final inspection, and are recorded and maintained in the client file. Only completed dwelling units with successful final inspections are reimbursed by the State and DOE. Sub-contractors to the subgrantees are not paid until the unit passes final inspection.

III.3.4 Assessment of Effectiveness

DNREC implements several levels of oversight to ensure the effectiveness and quality of the program. The final inspections are normally completed by a different auditor than did the energy audit. This enables the final inspector to perform quality control assessments on both the work done on the unit as well as the energy audit itself. Delaware may move to a model where the same individual who conducted the audit is the person doing the final inspection, but only if program monitoring efforts by state monitors can document that the efficiency gained through familiarity with the unit by the original auditor saves time and money and yields superior overall program results. The findings from the final inspections are included in an ongoing evaluation of quality of the sub-contractors that feed directly into the procurement and selection process. Contractors found to have sub-quality work do not continue in the program. High quality contractors are rewarded with extra jobs, the goal being to create specialized experts in weatherization.

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DNREC has prepared a Health and Safety Plan for the Weatherization Program in accordance with DOE program regulations and guidance. Delaware's Health and Safety Plan is attached. The State recognizes that the primary goal of the Weatherization Assistance Program is energy efficiency and will work to ensure that this goal is met. Furthermore, the State will eliminate the cost of Health and Safety from the average-cost-per home and will include this as a separate category. Sub-grantees will be allowed to use up to ten percent (10%) of their budget for Health and Safety.

Lead Paint Hazard

Subgrantees will be trained on lead-based paint risk and associated issues. DNREC will require that the sub-grantees have Pollution Occurrence Insurance (POI) and will include this along with the liability insurance as a separate category. Subgrantees must require sub-contractors comply with the Renovation, Repair and Painting (RRP) rule requiring that certain types of work be conducted by an EPA Certified Renovator Firm. Where required under the regulation, the firm must assign a Certified Renovator (CR) for weatherization work in target housing with the responsibility to train non-certified workers and conduct lead swab testing in appropriate areas. The CR must also oversee work practices to ensure the use of lead safe work practices including proper dust barriers, dust minimizing work methods, dust cleanup practices, clearance, and record keeping.

All workers disturbing paint will be required to attend Lead Safe Work Practices (LSWP). The subgrantees will monitor and track their sub-contractors for compliance with LSWP training requirements, and will maintain records in their files. A copy of the Environmental Protection Agency (EPA) "Renovate Right: Important Lead Hazard Information for Families, Child Care Providers and Schools" will be provided to all occupants residing in pre-1978 dwelling units. A signed receipt must be obtained prior to the start of the weatherization work and will be kept in the client file. Weatherization work will be deferred where significant lead-based paint hazards are found and where the weatherization work may result in increasing lead levels in the home or surrounding areas. Where a child is identified with an elevated blood lead level special care will be taken to not disturb paint, or weatherization work will be deferred until the home is lead-safe.

DOE Weatherization funding will not be used to test, remediate, or abate a dwelling with lead-based paint. When possible, the subgrantees will coordinate efforts with other funding sources to assist the families make their dwellings lead-safe. If the subgrantee or contractor of the subgrantee suspects that there are high levels of lead in the home, and children are living in the home, in particular children younger than 6 years of age, referrals will be made to the local health department for testing of the children's blood for lead.

Mold and Moisture

Subgrantees will receive training to ensure that regular weatherization work is performed in a manner that does not contribute to mold or moisture problems. As part of the initial audit, an assessment will be done to identify mold or moisture related problems. Minor conditions that cause mold and moisture issues in a dwelling unit and would affect the quality of the weatherization work will be addressed. DNREC has set a limit of \$400 per home (with prior approval, see "incidental cost") for such repairs that may be required to complete the weatherization work. In cases where significant remediation of toxic substances is required, DOE Weatherization funds will not be used, as this is not an allowable weatherization expense. DOE Weatherization funds will not be used to test, abate, remediate, purchase insurance, or alleviate existing mold or moisture conditions identified during the audit, the work performance period, or the quality control

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inspection. Weatherization services may need to be delayed until the existing mold or moisture problems can be referred to another agency for funding of remedial action.

Asbestos

Auditors will be trained to identify dwelling units that may have asbestos materials. These units will be assessed and weatherization work will be performed if determined possible and safe. Asbestos, which is friable, is not permitted to be removed, covered, encapsulated, or disturbed during weatherization activities. These asbestos measures will not be charged to DOE Weatherization funding. If requested, a reasonable time for asbestos removal and clean-up will be given prior to weatherization. When possible, subgrantees will work with other funding sources to remove or remediate asbestos.

The attached Health and Safety Plan further addresses: crew and contractor health and safety; client health and safety; combustion appliances and combustion gasses; hazards of fires; existing occupant health problems; radon; formaldehyde and Volatile Organic Compounds (VOCs); electrical wiring; and other code related issues.

III.5 Rental Procedures

To assist subgrantees with addressing landlord/tenant rental procedures, the State has developed a written agreement that requires signature of the landlord and the Contractor Agency. This agreement authorizes the agency staff and/or their contractors to: conduct inspections as required; install energy efficiency improvements to the property; and receive statements from fuel suppliers for evaluation. The agreement also prohibits rent increase due to weatherization work and requires landlord to pay back within one year cost of the weatherization work should the rent be increased, dwelling be sold, or mobile home moved. The agreement prohibits the landlord and/or contractor agency from charging anyone for labor or materials. Landlord forms must be included in all weatherized rental units as documentation of eligibility before any work commences. As part of the State weatherization Policies and Procedures Manual, the state includes landlord procedures that address landlord contribution, and appeals to resolve disputes (440.22(d)). The manual addresses: subgrantee's requirements to ensure that no undue enhancement occurs to the value of the dwelling units. Undue enhancement is defined as any improvement to the property that goes beyond the scope of energy conservation work. In addition, the manual states that subgrantees are required to use all landlord contributions as part of the agreed upon weatherization work per 440.22(d); and to require that all landlord contributions not required as part of the work must be counted as leveraged funds and used to enhance the program. An active landlord contribution program, including financial contributions, will be considered in the Policies and Procedures Manual in accordance with DOE requirements. Subgrantees are required to establish their own written procedures for addressing rental properties in their programs. These policies include requirements that subgrantees have written procedures for addressing landlord contributions in accordance with the Policies and Procedures Manual and with DOE regulations. DNREC will assess future opportunities with multi-family dwelling units and follow DOE guidance as appropriate.

III.6 Program Management

III.6.1 Overview

The Delaware Weatherization Assistance Program is administered by the Delaware Department of Natural Resources and Environmental Control's (DNREC) Division of Energy and Climate. The Division includes other key energy and climate policy staff for DNREC. Two subgrantees administer the Weatherization Program at the local level: First State Community Action Agency for Kent and Sussex Counties, and Neighborhood House, Inc. for New Castle County.

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STATE PLAN/MASTER FILE WORKSHEET (continued)

Identification Number: EE0000154, State: DE, Program Year: 2011

III.6.2 Administrative Expenditure Limits

DNREC allows for maximum administrative expenditures of 5% of the subgrantees total expenditures. The state does not exercise the option of providing additional administrative funds from the State administrative portion to the subgrantees.

III.6.3 Monitoring Approach

The purpose of this monitoring approach is to assist the subgrantees in providing high quality energy conservation weatherization services to low-income individuals. In addition, monitoring ensures that high quality comprehensive services are consistently applied throughout the state. The State has hired new program staff, outlined in the Budget narrative, to enable the newly expanded monitoring, quality assurance, and training. Additional monitoring will ensure adherence to new program policies and procedures at the State level and effective implementation of the program at the local level. The goal of the monitoring approach is for constant communication, coordination, assistance, and constructive evaluation between DNREC and the subgrantees. DNREC staff monitors the subgrantees regularly. On-site monitoring and quarterly administrative review of the subgrantees includes the following: client file review; the audit file (A-133 audit for each subgrantee); procurement procedures review; fiscal review; review of Liability & Pollution Occurrence Insurance (POI); review of compliance with all DOE and State regulations and procedures; and production management review. DNREC staff review the client files for completeness, accuracy, and appropriateness of forms and signatures. Monitoring staff also review timelines of vendor payments as well as evaluation of appropriateness of cost for services. DNREC will conduct random quality assurance evaluations of 20% of all completed dwelling units weatherized for compliance, 10% of which are "in process" to ensure that policies and procedures are followed on the work site. The purpose of site visits is to ensure that weatherization services are provided in a professional and workmanlike manner in compliance with all standards, regulations and policies set forth by DNREC in the Weatherization Field Guide and the cost-effectiveness tests from the energy audit. The field inspection includes: base load measures installed, air sealing, insulation, CAZ testing etc. The monitor must verify that the work being performed is appropriate and effective, and in compliance with all DOE and State regulations. Monitoring staff also gather feedback from sub-contractors and program participants to better understand strengths, weaknesses and opportunities for improvement, training and technical assistance. DNREC uses monitoring to determine whether agencies are deficient in their procedures. Agencies found deficient will be required to remedy all deficiencies and will be offered training specific to the agencies' needs. The subgrantee is briefed on all observations and findings generated by the monitoring visit, through an exit interview. Within thirty (30) days of each visit, the State prepares a written report on its findings and sends it to the subgrantee for corrective action. The subgrantee has thirty (30) days to respond in writing. Failure to respond in writing to the monitoring report during the thirty-day period will result in claims being held at DNREC. Noncompliance findings, unresolved within forty-five days, are then reported to DOE. Sensitive or significant noncompliance findings are also reported to DOE immediately. The State tracks major findings from the subgrantee visits and prescribes a timeline for final resolution. Failure to comply with the timeline and specific corrective action goals jeopardizes the ability of the agency to maintain its status as a subgrantee. Evaluations of subgrantees will also be used in rankings for future competitive selection processes for the sub-grantees themselves.

III.6.4 Training and Technical Assistance Approach

The State of Delaware's Training and Technical Assistance (T&TA) is intended to increase the efficiency and effectiveness of the weatherization program at all levels. T&TA activities are also designed to help maximize energy savings; minimize production costs; improve the quality of workmanship; and reduce the

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STATE PLAN/MASTER FILE WORKSHEET (continued)

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potential for waste, fraud and mismanagement. All stakeholders in the program including the state, the subgrantees, and the weatherization contractors and sub-contractors receive T&TA. Each stakeholder engages in training and/or receives technical assistance to replicate best practices and adhere to DOE standards of excellence throughout the entire project. Agencies receive T&TA consultations from the DNREC staff as appropriate. These visits assist local agency staff with issues relating to program operations, fiscal management, procurement procedures, and the technical aspects of the program.

Assessment of Training Needs

The State assesses the training needs of the subgrantees and contractors through quality assurance monitoring in the field, observations of performance, discussions, regularly scheduled management meetings, and monitoring visits. Through close monitoring of contractors' work, the subgrantees are able to further assess areas for improvement and provide robust feedback to the State for additional training needs of their contractors.

Types of Training Provided

The State provides the following types of training to state, subgrantee staff, and local sub-contractors (see Section II.6. "Training, Technical Assistance, and Monitoring Activities" for more details.): Management Training: This includes training in production management; subcontract management and financial management. Attendance at training sessions is mandatory for program management personnel working in the weatherization program. In addition to subgrantee management training, technical assistance is provided for the state office by working with national experts in the weatherization field to ensure that Delaware incorporates best practices into program administration and field operations. Technical Training: This includes training in energy auditing procedures, air sealing and construction techniques, heating systems, and quality control techniques. Attendance at these sessions is mandatory for the program management and quality control personnel. The subgrantees are also required to have their private weatherization subcontractors attend work specific and relevant training sessions on an annual basis. Subgrantee staff are encouraged to attend management and technical workshops offered at the regional and national weatherization conferences to gain further insights on best practices and to build relationships with other weatherization professionals. Ongoing trainings will be provided throughout the next year, and will continue to emphasize the need for targeted quality energy conservation work. Comparative Productivity: The State contracts with two subgrantees for the administration of the weatherization program. Monthly production reports submitted by the subgrantees are used to compare productivity. Assessment of T&TA Activities: Continuous monitoring of work completed in the field, and of subgrantee files and operations assist the State with determining future training needs. In addition, the State continues to conduct meetings with its partners to better understand their training needs and to assess the effectiveness of their current training.

III.6.5 Energy Crisis Plan

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WEATHERIZATION ANNUAL FILE WORKSHEET

Identification: EE0000154

State: DE

Program year: 2011

Budget period: 04/01/2011 - 03/31/2012

II.3 Subgrantees

Grantee	City	Tentative	
		Funding	Units
First State Community Action Agency, Inc.	Georgetown	150,290.83	20
Neighborhood House, Inc.	Wilmington	150,290.83	20
TOTALS		300,581.66	40

II.4 WAP Production Schedule

Total Units (excluding reweatherized)	40
Rewatherized Units	0

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WEATHERIZATION ANNUAL FILE WORKSHEET (cont)

Identification: EE0000154

State: DE

Program year: 2011

Budget period: 04/01/2011 - 03/31/2012

Average Unit Costs, including Reweathering, Subject to DOE Program Rules		
VEHICLE & EQUIPMENT AVERAGE COST PER DWELLING UNIT (DOE RULES)		
A	Total Vehicles & Equipment (\$5,000 or more) Budget	\$0.00
B	Total Units Weatherized	40
C	Total Units Reweatherized	0
D	Total Dwelling Units to be Weatherized and Reweatherized (B + C)	40
E	Average Vehicles & Equipment Acquisition Cost per Unit (A divided by D)	\$0.00
AVERAGE COST PER DWELLING UNIT (DOE RULES)		
F	Total Funds for Program Operations	\$248,233.66
G	Total Dwelling Units to be Weatherized and Reweatherized (from line D)	40
H	Average Program Operations Costs per Unit (F divided by G)	\$6,205.84
I	Average Vehicles & Equipment Acquisition Cost per Unit (from line E)	\$0.00
J	Total Average Cost per Dwelling (H plus I)	\$6,205.84

II.5 Energy Savings

Method used to calculate energy savings: WAP algorithm Other (describe below)

Estimated energy savings: 1,488.00 (MBtu)

Estimated prior year savings: Actual:

If variance is large, explain:

II.6 Training, Technical Assistance, and Monitoring Activities

Delaware's Weatherization Assistance Program is housed in the State's Department of Natural Resources and Environmental Control (DNREC) in the Division of Energy and Climate. The overarching goals of the program are to ensure that the right services are delivered to the appropriate customers, using the best trained work force, and maximizing the value of energy efficiency services implemented for the dollar spent. Training, technical assistance and monitoring are essential to achieving the goals of the program. Throughout the next year, focus will be given to continuing and enhancing the comprehensive training, technical assistance, and education for all weatherization staff, subgrantee staff, contractors, and auditors that was commenced during program year 2010. Monitoring of all aspects of the program will be robust and designed to ensure effective and efficient program delivery which ensures that all activities strictly adhere to DOE and State requirements.

The training proposed for PY 2011 is of two general categories: 1) A short term plan emphasizing

U.S. Department of Energy**WEATHERIZATION ANNUAL FILE WORKSHEET (cont)****Identification: EE0000154****State: DE****Program year: 2011****Budget period: 04/01/2011 - 03/31/2012**

maintenance of the training regimen begun in 2010 and 2) the long-term training plan for the weatherization program.

In the short-term, during program year 2011, as our program re-starts, the need for additional training is constantly being assessed and training will be provided as needed for auditors, installation crews, HVAC technicians and others working in the program. In January, 2011, following selection of the new contractor pool by the subgrantees, DNREC contracted with various nationally recognized WAP training providers to jump start the program. Trainers from the Pennsylvania Weatherization Training Center, the Indiana Community Action Association and the North Dakota WAP were all brought to Delaware and, in cooperation with Delaware Technical and Community College (DTCC) facilities and trainers, classroom and field training was conducted for over 100 new contractors in the program. As the program has developed through the spring and early summer of CY 2011, additional training sessions have been held.

For the grant period, subgrantees will be assessed throughout the project period to ensure they are adhering to administrative and programmatic requirements of the program. Assessment will be based on quality assurance monitoring in the field, subgrantee monitoring visits as detailed on our State Master Plan, review of performance metrics, quality of financial and reimbursement submissions, Davis Bacon compliance, financial audits and other tools and observations that are indicative of subgrantee performance.

Additional training classes will be held as necessary, dependent on identification of program weaknesses. In addition, the grantee will also be using production output comparisons between subgrantees to target training opportunities by subgrantee. Individual subgrantee productivity and energy savings results are not expected to differ considerably across subgrantees as there is overlap of contractors working for both subgrantees, and field monitoring and quality control activities are coordinated statewide, however, individual performance and customer service will be assessed across subgrantees to provide better, more uniform services statewide.

Where needs are evident, classes may be held using state or federal trainers and experts, in financial management and accounting, computer operations, program operations, Davis Bacon compliance, Hancock utilization or any other topic evident from the assessments. Attendance at training sessions will be mandatory for all subgrantees, tailored to the subject at hand. Where new subgrantee staff are hired and training needs are evident, training shall be provided by the subgrantees on relevant aspects of program operations within 30 days of hire.

Given the continuous evolution of Weatherization practices it is important for all working on Weatherization to maintain their knowledge and awareness of current best practices in the Weatherization industry. Therefore, the program will require that all State staff, sub-grantee staff, auditors, and contractors to attend at least two days of State-approved training and/or professional skills development every year hereafter on an ongoing basis.

II.7 DOE-Funded Leveraging Activities**II.8 Policy Advisory Council Members** (names, groups, agencies)

Governor's Energy Advisory Council

Arnetta McRae, Public Service Commission; Michael Sheehy, Public Advocate; David Hodas, CHAIR, Widener University; Gary Patterson, Delaware Petroleum Council; Gary Stockbridge, Delmarva Power; Edwin Kee, Delaware Dept. of Agriculture; Alan Levin, Delaware Economic Development Office; Patrick McCullar, Delaware Municipal Electric, Inc.; Drew Murphy, NRG; Seth Ross, Delaware Nature Society; Collin O'Mara, DNREC; Stephen Thompson, Chesapeake Utilities; Ann Visalli, OMB; DelDOT; William Andrew, DE Electric Cooperative; William Pelham, William E. Pelham, AIA

U.S. Department of Energy

WEATHERIZATION ANNUAL FILE WORKSHEET (cont)

Identification: EE0000154

State: DE

Program year: 2011

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II.9 State Plan Hearings (send notes, minutes, or transcript to the DOE office)

Hearing Date	Newspapers that publicized the hearings and the dates that the notice ran.
8/22/11	News Journal
	State News

II.10 Adjustments to On-File Information

Delaware continues to transition our program from the Department of Health and Social Services (DHSS) to the Department of Natural Resources and Environmental Control (DNREC). The shift has been lengthy and difficult, but has also provided an opportunity to re-build the program from the ground up – by revising all policies and procedures, enlisting new contractors, robust training, and stringent monitoring and oversight. The transition is however, still a work in progress, and will remain so through this program year.

One new addition for this program year may be the inclusion of one or more multi-family projects, if staff and subgrantees can quickly identify possible client sites, ensure suitable eligibility determinations and adherence to federal multi-family guidance and enlist the services of auditors and contractors qualified to conduct multi-family projects. DNREC will work with our State Housing Authority or other public or private housing entities providing services to the target client population to explore multi-family opportunities.

II.11 Miscellaneous

APPLICATION FOR FEDERAL ASSISTANCE SF-424

Version 02

9. Type of Applicant:

A State Government

10. Name of Federal Agency:

U. S. Department of Energy

11. Catalog of Federal Domestic Assistance Number:

81.042

CFDA Title:

Weatherization Assistance for Low-Income Persons

12. Funding Opportunity Number:

DE-FOA-0000446

Title:

Program Year 2011 Weatherization Formula Grants

13. Competition Identification Number:

Title:

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

Statewide

15. Descriptive Title of Applicant's Project:

The Weatherization Assistance Program enables low-income families to permanently reduce their energy bills by making their homes more energy efficient. During the last 32 years, the U.S. Department of Energy's (DOE) Weatherization Assistance Program has provided weatherization services to more than 6.2 million low-income families.

**U.S. DEPARTMENT OF ENERGY
GOLDEN FIELD OFFICE**



BUDGET EXPLANATION FOR FORMULA GRANTS

Applicant: Delaware Energy Office

Budget period: 04/01/2011 - 03/31/2012

Award number: EE0000154

1. PERSONNEL - Prime Applicant only (all other participant costs are listed in 6 below and form DOE F 4600.4, Section B, Line 6.f. Contracts and Sub-Grants).

Positions to be supported under the proposed award and brief description of the duties of professionals:

<u>Position</u>	<u>Description of Duties of Professionals</u>
WAP Program Manager	Administers the program, manages the staff and implements oversight of the program. 90% funded by WAP ARRA, 10% base WAP funded
Technical Expert/Program monitor	Monitors WAP activities in the field, conducts quality control, coordinates training programs for staff, subgrantees and contractors. 90% WAP ARRA. 10% WAP base.

Direct Personnel Compensation:

<u>Position</u>	<u>Salary/Rate</u>	<u>Time</u>	<u>Direct Pay</u>
WAP Program Manager	\$95,000.00	10.0000 % FT	\$9,500.00
Technical Expert/Program monitor	\$60,000.00	10.0000 % FT	\$6,000.00
		Direct Pay Total	\$15,500.00

2. FRINGE BENEFITS

a. Are the fringe cost rates approved by a Federal Agency? If so, identify the agency and date of latest rate agreement or audit below, and include a copy of the rate agreement.

b. If a above does not apply, indicate the basis for computation of rates, including the types of benefits to be provided, the rate(s) used, and the cost base for each rate. You may provide the information below or provide the calculations as an attachment.

The rates for full time employees (FTE) are: Pension 17.20%; workmans comp. 1.95%; Unemploy. Ins. 0.17%; Medicare 1.45%; FICA 6.20% and total 26.97%. To this is added costs for health care which varies by employee but which we assume an average cost for employee and spouse of \$12,000 at one full FTE.

Fringe Benefits Calculations

<u>Position</u>	<u>Direct Pay</u>	<u>Rate</u>	<u>Benefits</u>
WAP Program Manager	\$9,500.00	39.6020 %	\$3,762.19
Technical Expert/Program monitor	\$6,000.00	46.9700 %	\$2,818.20
		Fringe Benefits Total	\$6,580.39

3. TRAVEL - Identify total foreign and domestic travel as separate items.

a. Proposed travel:

<u>Purpose of Trip</u>	<u>Number of Trips</u>	<u>Cost Per Trip</u>	<u>Total</u>

4. **EQUIPMENT** - As defined in 10 CFR 660.202. Definitions are at http://www.access.gpo.gov/nara/cfr/waisidx_00/10cf

a. Basis of cost estimates (e.g., vendor quotes, prior purchases of similar or like items, etc.):

b. Equipment to be purchased and justification of need:

<u>Equipment</u>	<u>Unit Cost</u>	<u>Number</u>	<u>Total Cost</u>	<u>Justification of Need</u>
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5. **MATERIALS AND SUPPLIES** - As defined in 10 CFR 660.202.

a. Basis cost estimates (e.g., vendor quotes, prior purchases of like items, etc.):

b. Supplies to be purchased and justification of need:

<u>General Category</u>	<u>Cost</u>	<u>Justification of Need</u>
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6. **CONTRACTS AND SUBGRANTS** - All other participant costs including subcontractor sub-grants, and consultants For ongoing subcontractors and sub recipients described elsewhere in the application, document and item number is listed.

<u>Name of Proposed Sub</u>	<u>Total Cost</u>	<u>Basis of Cost*</u>
Subgrantee Health and Safety Funds	\$30,000.00	Each of the two subgrantees receives \$15,000 for H&S measures
Neighborhood House	\$124,116.83	Subgrantee Program Operations
Subgrantee T&TA	\$30,000.00	Training can include, but is not limited to training for mold and moisture awareness, mobile home weatherization techniques, lead based paint training and client education activities, or other needs not met by Grantee training programs.
Financial Audit cost	\$4,500.00	Calculated at 1% of grant award
Grantee T&TA	\$87,878.00	Training resources to ensure all contractors and staff have adequate training. Expenditures are subcategorized as follows: \$20,000 contractual assistance for program oversight and guidance of subgrantees (17% of T&TA funds), \$20,000 for Hancock on-site training, \$47,878 Statewide contractors and subgrantee training needs, and
First State	\$124,116.83	Subgrantee Program Operations
Subgrantee Administrative costs	\$22,348.00	Each of the subgrantees receives \$11,174 (5% of program budget)
Contracts and Subgrants Total	\$422,959.66	

*For example, Competitive, Historical, Quote, Catalog

7. **OTHER DIRECT COSTS** - All direct costs not included in above categories

a. Basis for cost estimates (e.g., vendor quotes, prior purchase of similar items, etc.):

b. Other direct costs and justification of need:

<u>General Description</u>	<u>Cost</u>	<u>Justification of Need</u>
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8. **INDIRECT COSTS**

a. Are the indirect cost rates approved by a Federal agency? If so, identify the agency and date of latest rate agreement or audit and provide a copy of the rate agreement.

The latest indirect costs rate between DNREC and EPA is dated 5/8/2009. The FY 2010 rate for the Office of the Secretary (within which is the Division of Energy and Climate) is 12.49%.

b. If the above does not apply, indicate the basis for computation of rates, including the types of benefits to be provided, the rate(s) used, and the cost base for each rate. You may provide the information below or provide the calculations separately.

The name and phone number of the individual responsible for negotiating the State's indirect cost rates.

Name: Nick Goettsch

Phone Number: 8043233535

Indirect costs calculations:

<u>Indirect Cost Account</u>	<u>Direct Total</u>	<u>Indirect Rate</u>	<u>Total Indirect</u>
DNREC OTS - Energy and Climate	\$15,500.00	12.4900 %	\$1,935.95
		Indirect Costs Total	\$1,935.95

BUDGET INFORMATION - Non-Construction Programs

1. Program/Project Identification No. EE0000154		2. Program/Project Title The Weatherization Assistance Program enables low-income families to permanently reduce their energy bills by making their homes more energy efficient. During the last 32 years, the U.S. Department of Energy's (DOE) Weatherization Assistance Program has provided weatherization services to more than 6.2 million low-income families.	
3. Name and Address Delaware Energy Office 1203 College Park Drive Dover DE 19904		4. Program/Project Start Date 04/01/2011	5. Completion Date 03/31/2012

SECTION A - BUDGET SUMMARY

Grant Program Function or Activity (a)	Federal Catalog No. (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. Federal	81.042	\$ 0.00		\$ 446,976.00		\$ 446,976.00
2.						
3.						
4.						
5. TOTAL		\$ 0.00	\$ 0.00	\$ 446,976.00	\$ 0.00	\$ 446,976.00

SECTION B - BUDGET CATEGORIES

6. Object Class Categories	Grant Program, Function or Activity					Total (5)
	(1) DOE	(2) GRANTEE ADMINISTRATION	(3) SUBGRANTEE ADMINISTRATION	(4) GRANTEE T&TA		
a. Personnel	\$ 0.00	\$ 15,500.00	\$ 0.00	\$ 0.00	\$ 15,500.00	
b. Benefits	\$ 0.00	\$ 6,580.39	\$ 0.00	\$ 0.00	\$ 6,580.39	
c. Travel	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	
d. Equipment	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	
e. Supplies	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	
f. Contract	\$ 0.00	\$ 0.00	\$ 22,348.00	\$ 87,878.00	\$ 422,959.66	
g. Construction	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	
h. Other	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	
i. Total Direct Charges	\$ 0.00	\$ 22,080.39	\$ 22,348.00	\$ 87,878.00	\$ 445,040.05	
j. Indirect	\$ 0.00	\$ 1,935.95	\$ 0.00	\$ 0.00	\$ 1,935.95	
k. Totals	\$ 0.00	\$ 24,016.34	\$ 22,348.00	\$ 87,878.00	\$ 446,976.00	
7. Program Income	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	

BUDGET INFORMATION - Non-Construction Programs

1. Program/Project Identification No.
EE0000154

2. Program/Project Title

The Weatherization Assistance Program enables low-income families to permanently reduce their energy bills by making their homes more energy efficient. During the last 32 years, the U.S. Department of Energy's (DOE) Weatherization Assistance Program has provided weatherization services to more than 6.2 million low-income families.

3. Name and Address Delaware Energy Office
1203 College Park Drive
Dover DE 19904

4. Program/Project Start Date 04/01/2011

5. Completion Date 03/31/2012

SECTION A - BUDGET SUMMARY						
Grant Program Function or Activity (a)	Federal Catalog No. (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1.						
2.						
3.						
4.						
5. TOTAL		\$ 0.00	\$ 0.00	\$ 446,976.00	\$ 0.00	\$ 446,976.00

SECTION B - BUDGET CATEGORIES					
6. Object Class Categories	Grant Program, Function or Activity				Total (5)
	(1) PROGRAM OPERATIONS	(2) HEALTH AND SAFETY	(3) FINANCIAL AUDITS	(4) SUBGRANTE E T&TA	
a. Personnel	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 15,500.00
b. Benefits	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 6,580.39
c. Travel	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
d. Equipment	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
e. Supplies	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
f. Contract	\$ 248,233.66	\$ 30,000.00	\$ 4,500.00	\$ 30,000.00	\$ 422,959.66
g. Construction	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
h. Other	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
i. Total Direct Charges	\$ 248,233.66	\$ 30,000.00	\$ 4,500.00	\$ 30,000.00	\$ 445,040.05
j. Indirect	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1,935.95
k. Totals	\$ 248,233.66	\$ 30,000.00	\$ 4,500.00	\$ 30,000.00	\$ 446,976.00
7. Program Income	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00

ATTACHMENT 1

Delaware WAP Health and Safety Plan

1. Introduction

While weatherization measures effectively reduce energy usage and costs, the nature and effect of the work require that care be taken to avoid unintended consequences. For example, air sealing may tighten a house to the point that indoor air pollutants become a greater problem. Or, faulty combustion appliances may spill deadly carbon monoxide that previously was exhausted in the exchange of air through a leakier, now tightened house.

Weatherization work, like any repair work on a house, is likely to disturb existing materials in a home. If a window requiring caulk happens to be coated with lead based paint, care must be taken not to create the serious health issues resulting from spreading dust particles on the floor where a baby may be crawling the next day. If a workman is replacing ducts around pipes that are wrapped with asbestos, serious lung problems could result from the disturbance of the asbestos particles.

Health and safety issues are critical for all concerned parties in the WAP. The clients we serve are our first priority, as they are and will be living in the homes we weatherize through our efforts, and their exposure levels are therefore potentially the highest in most health and safety problems. Our WAP Contractors, Subgrantees and state staff are also potentially exposed to health and safety risks, expanding the need for adequate Health and safety planning and response protocols for a myriad of potential health and safety issues

In cases where work activities would constitute a health and safety hazard, action is required to limit or avoid particular measure(s) which may exacerbate a health or safety problem. In some cases, weatherization may have to be deferred while hazards are remedied. The response to any one health and safety issue is dependent on the issue, as is the need for testing, client education and training specific to the concern at hand. This plan outlines the issues, allowable actions, training and other aspects of many health and safety concerns. The list of concerns is taken from the US Department of Energy Weatherization Program Notice 11-6, published in 2011 and has been modified for use here in Delaware.

2. Responsibilities and Funding

Although the Weatherization Assistance Program is not capable of providing solutions for all health and safety issues, identification of potential hazards is essential to providing safe services. Therefore, each dwelling must be individually assessed by the Energy Auditor to determine the existence of potential hazards to workers and clients. Contractors working in a home may also identify health and safety measures, as might inspectors or other staff. The subgrantee has the ultimate responsibility to see that Health & Safety of the workers and the occupants is paramount throughout the implementation of weatherization services.

The subgrantee has the responsibility to determine when weatherization work is to be deferred because of health and safety issues, as well as when the deferral is to be lifted. If there is a question on these decisions, the subgrantee may consult with the DNREC. DNREC’s deferral policy is found in Section 4 of this plan.

Delaware budgets health and safety costs as a separate category, thereby excluding these costs from the average cost per unit calculation. Creating a separate budget category also allows these costs to be isolated from energy efficiency costs during program evaluations. Delaware limits Health and Safety expenses to 10% of its DOE funding allocation.

Under some circumstances, fixing hazards may also be paid for from weatherization funds to the extent that they qualify as “Incidental Repairs” which are necessary for the success of a weatherization measure. Incidental repairs are those repairs necessary for the effective performance or preservation of weatherization materials and which are not expressly considered health and safety costs under Section 3 of this plan. Incidental repairs shall be no more than \$400 per unit.

Health and safety expenditures on any one unit shall ordinarily be limited to a percentage of the average cost per dwelling unit of 10%. The 10% limit is deemed reasonable to address any Health and Safety issues in accordance with Section 3 of this plan and should allow adherence to the 10% funding allocation limit noted above.

Identification of health and safety concerns begins with a conversation with the client where the auditor should solicit concerns directly from the occupant, followed up with a detailed visual inspection in several key areas of the unit as follows:

Attic Inspection	Wall Inspection	Basement/ Crawlspace Inspection
Recessed and canned lighting Chimney/ flue shielding Wiring, knob and tube Adequate ventilation Water leaks and moisture problems Other	Wiring Water leaks Moisture problems Lead based paint Asbestos siding Other	Vapor barrier Wiring Water leaks Plumbing leaks Moisture problems Other

During the energy audit, the auditor should perform additional screening to determine what steps will be taken to ensure that Weatherization work will not worsen the health concern.

3. Health and Safety Issues Guidance

The following Health and Safety Guidance Table was developed by US DOE and included in their WAP Program Guidance 11-6. It has been modified slightly to adhere to Delaware's requirements and state-specific concerns. While not every possible health and safety issue is addressed herein, the guidance should provide enough relevant examples and direction to provide clarity to the many issues surrounding Health and safety concerns.

Under any circumstance, the following comment themes and requirements shall be adhered to:

- Where removal or replacement is addressed in the document, proper disposal is required, and allowed as a health and safety cost.
- Where hazards are identified, clients must be informed in writing and the document must be signed by the client and a copy maintained in the client file.
- State and local (or jurisdiction having authority) codes must be followed while installing health and safety measures.
- Workers must be qualified and adequately trained according to state and local (or jurisdiction having authority) codes specific to the work being conducted (electrical, plumbing, etc.).

Health and Safety Issue	Action/Allowability	Testing	Client Education	Training
Air Conditioning and Heating Systems	“Red tagged”, inoperable, or nonexistent heating system replacement, repair, or installation is allowed where climate conditions warrant, unless prevented by other guidance herein. Air conditioning system replacement, repair, or installation is not allowed.	Make sure systems are present, operable, and performing. Determine presence of at-risk occupants.	Discuss and provide information on appropriate use and maintenance of units and proper disposal of bulk fuel tanks when not removed.	Awareness of guidance.
Appliances and Water Heaters	Replacement of water heaters is allowed on a case by case basis. Replacement and installation of other appliances are not allowable health and safety costs. Repair and cleaning are allowed. Also see Air Conditioning and Heating Systems and Combustion Gases.	Determine whether appliances/water heaters are performing safely. Combustion safety testing is required when combustion appliances are present.	Discuss and provide information on appropriate use, maintenance, and disposal of appliances/water heaters.	Awareness of guidance. Conducting diagnostic training.
Asbestos - in siding, walls, ceilings, etc	Removal of siding is allowed to perform energy conservation measures. All precautions must be taken not to damage siding. Asbestos siding should never be cut or drilled. Recommended, where possible, to insulate through home interior.	Inspect exterior wall surface and subsurface for asbestos siding prior to drilling or cutting.	Inform the client that suspected asbestos siding is present and how precautions will be taken.	Safe practices for siding removal and replacement. How to identify asbestos containing materials.
Asbestos - in vermiculite	When vermiculite is present, unless testing determines otherwise, take precautionary measures as if it contains asbestos, such as not using blower door tests and utilizing personal air monitoring while in attics. Where blower door tests are performed, it is a best practice to perform pressurization instead of depressurization. Encapsulation by an appropriately trained asbestos control professional is allowed. Removal is not allowed.	Assess whether vermiculite is present. Asbestos Hazard Emergency Response Act of 1986 (AHERA) certified prescriptive sampling is allowed by a certified tester.	Clients should be instructed not to disturb suspected asbestos containing material. Provide asbestos safety information to the client. Formally notify client if test results are positive for asbestos and signed by the client.	Audit training on how to recognize vermiculite. AHERA course for testing. AHERA or other appropriately trained or certified asbestos control professional training for encapsulation.
Asbestos - on pipes, furnaces, other small covered surfaces	Assume asbestos is present in covering materials. Encapsulation is allowed by an AHERA asbestos control professional and should be conducted prior to blower door testing. Removal may be allowed by an AHERA asbestos control professional on a case by case basis.	AHERA testing is allowed by a certified tester.	Clients should be instructed not to disturb suspected asbestos containing material. Provide asbestos safety information to the client.	AHERA course for testing and asbestos control professional training for abatement. How to identify asbestos containing materials.
Health and Safety Issue	Action/Allowability	Testing	Client Education	Training

Biologicals and Unsanitary Conditions - odors, mustiness, bacteria, viruses, raw sewage, rotting wood, etc.	Remediation of conditions that may lead to or promote biological concerns and unsanitary conditions is allowed. Addressing bacteria and viruses is not an allowable cost. Deferral may be necessary in cases where a known agent is present in the home that may create a serious risk to occupants or weatherization workers. Also see Mold and Moisture guidance below.	Sensory inspection.	Inform client of observed conditions. Provide information on how to maintain a sanitary home and steps to correct deferral conditions.	How to recognize conditions and when to defer. Worker safety when coming in contact these conditions.
Building Structure and Roofing	Building rehabilitation is beyond the scope of the Weatherization Assistance Program. Homes with conditions that require more than incidental repair should be deferred. See Mold and Moisture guidance below.	Visual inspection. Ensure that access to areas necessary for weatherization is safe for entry and performance of assessment, work, and inspection.	Notify client of structurally compromised areas.	How to identify structural and roofing issues.
Code Compliance	Correction of preexisting code compliance issues is not an allowable cost other than where weatherization measures are being conducted. State and local (or jurisdiction having authority) codes must be followed while installing weatherization measures. Condemned properties and properties where “red tagged” health and safety conditions exist that cannot be corrected under this guidance should be deferred.	Visual inspection. Local code enforcement inspections.	Inform client of observed code compliance issues.	How to determine what code compliance may be required.
Combustion Gases	Proper venting to the outside for combustion appliances, including gas dryers is required. Correction of venting is allowed when testing indicates a problem.	Combustion safety testing is required when combustion appliances are present. Inspect venting of combustion appliances and confirm adequate clearances. Test naturally drafting appliances for draft and spillage under worst case conditions before and after air tightening. Inspect cooking burners for operability and flame quality.	Provide client with combustion safety and hazards information, including the importance of using exhaust ventilation when cooking and the importance of keeping burners clean to limit the production of CO.	How to perform appropriate testing, determine when a building is excessively depressurized, and the difference between air free and as-measured.
Health and Safety Issue	Action/Allowability	Testing	Client Education	Training
Drainage - gutters, down	Major drainage issues are beyond the scope of the	Visual inspection.	Importance of cleaning and	How to recognize

spouts, extensions, flashing, sump pumps, landscape, etc.	Weatherization Assistance Program. Homes with conditions that may create a serious health concern that require more than incidental repair should be deferred. See Mold and Moisture guidance below.		maintaining drainage systems. Information on proper landscape design.	drainage issues.
Electrical, other than Knob-and-Tube Wiring	Minor electrical repairs are allowed where health or safety of the occupant is at risk. Upgrades and repairs are allowed when necessary to perform specific weatherization measures.	Visual inspection. Voltage drop and voltage detection testing are allowed.	Provide information on overloading circuits, electrical safety/risks.	How to identify electrical hazards. Local code compliance.
Electrical, Knob-and-Tube Wiring	Minor upgrades and repairs necessary for weatherization measures and where the health or safety of the occupant is at risk are allowed. Must provide sufficient over-current protection prior to insulating over knob-and-tube wiring.	Inspect for presence and condition of knob-and-tube wiring. Check for alterations that may create an electrical hazard. Voltage drop and voltage detection testing are allowed.	Provide information to client on over-current protection, overloading circuits, basic electrical safety/risks.	How to identify electrical hazards. Local code compliance.
Fire Hazards	Correction of fire hazards is allowed when necessary to safely perform weatherization.	Check for fire hazards in the home during the audit and while performing weatherization.	Inform client of observed hazards.	How to identify fire hazards.
Formaldehyde, Volatile Organic Compounds (VOCs), and other Air Pollutants	Removal of pollutants is allowed and is required if they pose a risk to workers. If pollutants pose a risk to workers and removal cannot be performed or is not allowed by the client, the unit must be deferred.	Sensory inspection.	Inform client of observed condition and associated risks. Provide client written materials on safety and proper disposal of household pollutants.	How to recognize potential hazards and when removal is necessary.
Injury Prevention of Occupants and Weatherization Workers - Measures such as repairing stairs and replacing handrails.	Workers must take all reasonable precautions against performing work on homes that will subject workers or occupants to health and safety risks. Minor repairs and installation may be conducted only when necessary to effectively weatherize the home; otherwise these measures are not allowed.	Observe if dangers are present that would prevent weatherization.	Inform client of observed hazards and associated risks.	Awareness of potential hazards.
Health and Safety Issue	Action/Allowability	Testing	Client Education	Training
Lead Based Paint	Follow EPA's Lead; Renovation, Repair and Painting Program (RRP). In addition to RRP,	Testing is allowed. Job site set up and cleaning	Follow RRP requirements.	All weatherization crews working on pre-1978

	Weatherization requires all weatherization crews working in pre-1978 housing to be trained in Lead Safe Weatherization (LSW). Deferral is required when the extent and condition of lead-based paint in the house would potentially create further health and safety hazards.	verification is required by a Certified Renovator.		homes must receive LSW training and be accompanied by an EPA Certified Renovator. Grantee Monitors/Inspectors must be Certified Renovators and receive LSW training.
Mold and Moisture	Limited water damage repairs that can be addressed by weatherization workers and 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. Where severe Mold and Moisture issues cannot be addressed, deferral is required.	Visual assessment is required and diagnostics such as moisture meters are recommended pre and prior to final inspection. Mold testing is not an allowable cost.	Provide client notification and disclaimer on mold and moisture awareness.	National curriculum on mold and moisture or equivalent.
Occupant Preexisting or Potential Health Conditions	When a person's health may be at risk and/or the work activities could constitute a health or safety hazard, the occupant at risk will be required to take appropriate action based on severity of risk. Temporary relocation of at-risk occupants may be allowed on a case by case basis. Failure or the inability to take appropriate actions must result in deferral.	Require occupant to reveal known or suspected health concerns as part of initial application for weatherization. Screen occupants again during audit.	Provide client information of any known risks. Provide worker contact information so client can inform of any issues.	How to assess occupant preexisting conditions and determining what action to take if the home is not deferred. Awareness of potential hazards.
Occupational Safety and Health Administration (OSHA) and Crew Safety	Workers must follow OSHA standards and Material Safety Data Sheets (MSDS) and take precautions to ensure the health and safety of themselves and other workers. MSDS must be posted wherever workers may be exposed to hazardous materials.	Grantees must perform assessments to determine if crews are utilizing safe work practices.	Not applicable.	Use and importance of personal protection equipment. OSHA 10 hour training is required for all workers. OSHA 30 hour training is required for crew leaders.
Health and Safety Issue	Action/Allowability	Testing	Client Education	Training
Pests	Pest removal is allowed only where infestation would prevent weatherization. Infestation of pests may be cause for deferral where it cannot be	Assessment of presence and degree of infestation and risk to worker.	Inform client of observed condition and associated risks.	How to assess presence and degree of infestation, associated risks, and need

	reasonably removed or poses health and safety concern for workers. Screening of windows and points of access is allowed to prevent intrusion.			for deferral.
Radon	Whenever site conditions permit, exposed dirt must be covered with a vapor barrier except for mobile homes. In homes where radon may be present, precautions should be taken to reduce the likeliness of making radon issues worse.	Testing may be allowed in locations with high radon potential.	Provide client with EPA consumer's guide to radon.	What is it, how it occurs. What factors may make radon worse. Weatherization measures that may be helpful. Vapor barrier installation.
Refrigerant	Reclaim refrigerant per Clean Air Act 1990, section 608, as amended by 40 CFR82, 5/14/93.	EPA testing protocols.	Clients should not disturb refrigerant.	EPA-approved section 608 type I or universal certification.
Smoke, Carbon Monoxide Detectors, and Fire Extinguishers	Installation of smoke/CO detectors is allowed where detectors are not present or are inoperable. Replacement of operable smoke/CO detectors is not an allowable cost. Providing fire extinguishers is allowed only when solid fuel is present.	Check for operation.	Provide client with verbal and written information on use of smoke/CO detectors and fire extinguishers where allowed.	Where to install detectors. Local code compliance.
Solid Fuel Heating (Wood Stoves, etc.)	Maintenance, repair, and replacement of primary indoor heating units is allowed where occupant health and safety is a concern. Maintenance and repair of secondary heating units is allowed.	Required inspection of chimney and flue and combustion appliance zone depressurization.	Provide safety information including recognize depressurization.	How to perform CAZ depressurization test and proper inspection.
Space Heaters, Stand Alone Electric	Repair, replacement, or installation is not allowed. Removal is recommended.	Check circuitry to ensure adequate power supply for existing space heaters.	Inform client of hazards and collect a signed waiver if removal is not allowed.	Awareness of guidance.
Space Heaters, Unvented Combustion	Removal is required, except as secondary heat where the unit conforms to ANSI Z21.11.2. Units that do not meet ANSI Z21.11.2 must be removed prior to weatherization but may remain until a replacement heating system is in place.	Testing for air-free carbon monoxide (CO) is allowed. Check units for ANSI Z21.11.2 label.	Inform client of dangers of unvented space heaters - CO, moisture, NO2, CO can be dangerous even if CO alarm does not sound.	How to perform air-free CO testing. Understanding the dangers of unvented space heaters.
Health and Safety Issue	Action/Allowability	Testing	Client Education	Training
Space Heaters, Vented Combustion	Should be treated as furnaces.	Venting should be tested consistent with furnaces.	Not applicable.	Proper testing methods for safe operation (draft and CO) should be conducted and for steady

				state efficiency if possible.
Spray Polyurethane Foam (SPF)	Use EPA recommendations (available online at http://www.epa.gov/dfe/pubs/projects/spf/spray_polyurethane_foam.html) when working within the conditioned space or when SPF fumes become evident within the conditioned space. When working outside the building envelope, isolate the area where foam will be applied, take precautions so that fumes will not transfer to inside conditioned space, and exhaust fumes outside the home.	Check for penetrations in the building envelope. Sensory inspection inside the home for fumes during foam application.	Provide notification to the client of plans to use two-part foam and the precautions that may be necessary.	Training on use of various products with specification for each application type. MSDS sheets. Temperature sensitivity.
Ventilation	2010 (or most current) ASHRAE 62.2 is required to be met to the fullest extent possible, when performing weatherization activity (must be implemented by January 1, 2012). Implementing ASHRAE 62.2 is not required where acceptable indoor air quality already exists as defined by ASHRAE 62.2. Existing fans and blower systems should be updated if not adequate.	ASHRAE 62.2 evaluation, fan flow, and follow up testing are required to ensure compliance.	Provide client with information on function, use, and maintenance of ventilation system and components. Include disclaimer that ASHRAE 62.2 does not account for high polluting sources or guarantee indoor air quality.	ASHRAE 62.2 training required including proper sizing, evaluation of existing and new systems, depressurization tightness limits, critical air zones, etc.
Window and Door Replacement, Window Guards	Replacement, repair, or installation is not an allowable health and safety cost but may be allowed as an incidental repair or an efficiency measure if cost justified.	Not applicable	Provide information on lead risks.	Awareness of guidance.

4. Deferral Policy

The Delaware Weatherization Assistance Program may elect to defer a home from receiving weatherization services where health and safety hazards exist for our staff, contractors or our clients or where conditions prevent the safe and effective emplacement of weatherization measures.

Causes For Deferral

Conditions which may cause a home to be deferred may include, but are not limited to the following:

- Structurally unsound dwellings.
- Evidence of substantial, persistent infestations of rodents, insects and other vermin.
- Electrical or plumbing hazards that cannot be resolved prior to or as a part of weatherization services.
- The presence of sewage in any part of the dwelling unit, basement or crawl space.
- Environmental hazards such as serious moisture problems, carbon monoxide, gas leaks, friable asbestos or other hazardous materials
- The presence of animal feces in any area of the dwelling unit where program staff must perform weatherization measures.
- Excessive garbage build-up in and around the dwelling unit which limits the program staff's access to the dwelling and encourages rodent infestations.
- Maintenance and housekeeping practices that are negligent to the point of limiting the access of program staff to the dwelling, or creating an unwholesome working environment.
- An overt threat of violence to any program staff member or any household member during the weatherization process.
- The presence and/or use of any controlled substance in the dwelling unit during the weatherization process.

In addition to health and safety concerns, other issues may prevent a home from being weatherized. These include:

- Structurally unsound dwelling
- Major remodeling is in progress which limits the proper completion of major weatherization measures.
- Substantial amounts of standing water in the crawl space or basement.
- Uncooperative client: client refuses major weatherization measure or refuses to make modifications necessary to permit major measure to be completed.

Deferral Procedures and Contractor Payment

Deferrals at Beginning of Audit

If an auditor arrives at a home, begins to review the home and determines it should be deferred prior to concluding the audit, the auditor shall immediately contact the local agency program monitor by cell phone to describe the situation and ask for guidance. If possible, the monitor may want to meet the auditor in the field to discuss the situation further and brainstorm ideas for getting the home in a condition where an audit can be conducted. No home may be deferred without first having checked with the local agency program monitor. If it is finally decided to defer the home, the auditor shall have the homeowner sign the deferral form, noting the one or more reasons why the home is deferred. The local agency should then be immediately notified and try to get the homeowner any help or resources needed to correct the situation.

If deferred at this stage, the auditor will be entitled to a \$100 payment for an audit cut short for deferral reason. Payment may be made at any time following the determination of deferral, upon receipt of a suitable invoice from the auditor.

If the cause of the deferral is resolved, the local agency shall assign the same auditor to the unit to conclude the audit, and the auditor shall be entitled to the complete payment for the audit as shown on the price list.

Deferrals During Audit

If in the auditor's judgment during the audit, he/she feels the house should be deferred for a problem likely and/or easily fixed - and that the home will eventually be weatherized, the audit may continue, however, the auditor shall immediately contact the local agency program monitor by cell phone to describe the situation and ask for guidance. If possible, the monitor may want to meet the auditor in the field to discuss the situation further and brainstorm ideas for getting the home in a condition where a deferral may not be necessary. No home may be deferred without first having checked with the local agency program monitor.

If it is finally decided to defer the home, the auditor shall have the homeowner sign the deferral form, noting the one or more reasons why the home is deferred. The local agency should then be immediately notified and try to get the homeowner any help or resources needed to correct the situation. The completed audit shall be provided to the local agency. If deferred, and the audit was completed, the auditor will be entitled to the full audit costs on the price list, however, payment may not be made unless and until the "Administrative Procedures to be followed for Deferred Units" below is concluded..

Deferral At Time Of Measure Installation

Any mechanical or installation contractor arriving on site and discovering what they believe to be a cause for deferral shall immediately contact the auditor to discuss the situation and determine a course of action. No work shall be done on the home.

If deferral of the unit is agreed upon, the contractor shall fill out a deferral form on site and obtain the client's signature at the time of deferral.

The Contractor shall then be entitled to a \$100 payment for the deferral.

Administrative Procedures to be followed for Deferred Units

Once NH/FSCA has been advised that a unit has been deferred, the local agency shall make every effort to bring homeowners back into the program. The local agency shall:

1. Start by directing a letter to the homeowner informing them the home has been deferred and asking them to correct the problems and contact the agency when ready; giving them 15 days to correct the situation. The letter should inform clients where they may turn to for help in addressing the cause of the deferral, if known.
2. If no action is taken by the homeowner, a second certified letter will be sent to the unit owner, informing them that they need to contact the local agency within 10 days.
3. If no response is received to the certified letter, the unit is removed from further consideration by the WAP. This unit can however, be counted as complete for federal reporting purposes provided it has had a final inspection.
4. If at any time the homeowner states that they cannot or will not make the needed repairs, another final letter is sent to the homeowner informing them that they have been removed from the program and that they may not participate in WAP in the future.

All letters and documentation of efforts to contact or help the homeowner shall be kept in the clients file by the local agency.

Removal from the program will track with the unit owner at the time of initial WAP visit. Should the owner re-apply or purchase or otherwise occupy another dwelling and wish to receive weatherization services, they shall be placed, and remain, at the bottom of the waiting list, regardless of occupant age, disability, or other criteria used to rank the waiting list. Any units counted as complete for federal reporting purposes may not be re-weatherized.

Notification and Appeal

Households shall be informed in writing by the local agency when services are denied or withdrawn based on deferral guidelines above. The denial notice will include instruction for appeal of the denial or the steps the household must take to allow the agency to proceed with weatherization services.

Effective 7/15/11