



Commonwealth of Puerto Rico
ENERGY AFFAIRS ADMINISTRATION

American Recovery and Reinvestment Act
Weatherization Assistance Program

STATE PLAN

MAY 2009

**U.S. Department of Energy
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II.1 Executive Summary

The Puerto Rico Weatherization Assistance Program (WAP) State Plan for Program Year (PY) 2009 describes the framework to be established for the application of Weatherization Funds allocated through the American Recovery and Reinvestment Act (ARRA). ARRA has provided \$48.8 million in funding for Weatherization Assistance in Puerto Rico. Guidelines set in 10 CFR Part 440 and US Department of Energy resources provided the framework for the development of the Program for Puerto Rico.

The Weatherization Assistance Program helps low-income families to attain a reduction of household energy expenditures, while securing and enhancing the health and safety of the home. Of particular concern to the program is to provide assistance to the elderly, families with children, persons with disabilities, and those with a high energy burden in their household. It is expected that for PY 2009, the WAP can benefit approximately 4,700 households (owned or rented) in Puerto Rico.

Due to the warm climate of the island, weatherization efforts will be directed at improving the efficiency of cooling systems, reduction in electrical energy demand of light fixtures and selected household appliances, and mitigate energy-related health and safety concerns. To maximize the benefits of the program, work will be performed by trained personnel, and the process will be monitored from initial client application to certification of completed weatherization work.

This State Plan is not a procedure manual, it is intended as a general guide about the funding and operation of the Program. Specific information regarding the operation of the Program will be contained in the Operations Procedure Manual, which is currently being developed.

Section Two of the State Plan covers the initial allocation of funds for the program and the organizational structure for their management. It also discusses the time frame in which weatherization work will take place, the distribution between owned and rented households, training and monitoring activities, and the process followed to start-up the program.

Section Three is dedicated to discussing the work within the program. This includes the assessment of client eligibility, geographical location of dwellings to receive assistance, and establishing priorities for the program. The procedures used to determine the type of work to be performed are also covered, along with a description of weatherization measures, procedures followed to preserve the health and safety of occupants and work crews during the work, inspection of the dwelling after weatherization measures have been applied that assess improvements attained in energy usage and the health and safety of the occupants.

II.2 Program Overview

The Weatherization Assistance Program (WAP) was created in 1976 to assist low-income families who lacked resources to invest in energy efficiency. Puerto Rico was included for the first time in the WAP for Program Year (PY) 2009. The Program mission is to reduce energy costs, while ensuring the health and safety, for eligible low-income families with priority for households with children, the elderly, and persons with disabilities. The program also allocates funds to homeowners and renters with high energy costs in relation to their household income.

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The American Recovery and Reinvestment Plan Act (ARRA) of 2009, Public Law 111-5, appropriates funding for the DOE to issue/award formula-based grants under the Weatherization Assistance Program. The ARRA allocation for Puerto Rico is \$48.8 million.

The Program will be administered in Puerto Rico by the Energy Affairs Administration (EAA), acting as the Grantee under ARRA. EAA will administer the WAP in compliance with applicable laws; including regulations contained in 10 CFR Part 440, 10 CFR Part 600, DOE ARRA WAP notices and other procedures applicable to these regulations as the United States Department of Energy (DOE) may prescribe for the administration of financial assistance.

Program services will be delivered by The Infrastructure Financing Authority (AFI, by its Spanish acronym) to eligible individuals. AFI is a government agency created in 1998 with the purpose of providing administrative, financial and other support to other public corporations, agencies and municipalities. AFI will act as the Subgrantee and will perform a number of services including, but not limited to, identification of eligible customers, evaluation of dwelling units to be weatherized, training of personnel, installation of energy-saving measures, supervision of weatherization work, maintenance of customer files, and reports preparation.

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II.3 Subgrantees

Due to the small size of Puerto Rico, the WAP can be managed by only one subgrantee. As stated previously, the subgrantee for the Program will be The Infrastructure Financing Authority (AFI). Although this is the first year of the WAP in Puerto Rico, AFI has vast experience in low income housing renovation activities and have worked in projects throughout the island.

Grantee	City	Tentative	
		Funding	Units
Infrastructure Financing Authority (AFI)	San Juan	\$44,762,646	4,700
Totals			

II.4 WAP Production Schedule

Total Units (excluding reweatherized)	4,700
Units by Type (excluding reweatherized):	
Owner-occupied single-family site built	
Single-family rental site-built	
Multi-family	
Owner-occupied mobile home	
Renter-occupied mobile home	
Shelter	
Units by occupancy:	
Elderly	
Persons with disabilities	
Native American	
Children	
High residential energy user	
Household with a high energy burden	
Other unit types:	
Rewatherized Units	0

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Average Unit Costs, including Reweathering, Subject to DOE Program Rules	
VEHICLES & EQUIPMENT AVERAGE COST PER DWELLING UNIT (DOE RULES)	
A Total Vehicles & Equipment (\$5,000 or more) Budget	0
B Total Units Weatherized	4,700
C Total Units Reweatherized	0
D Total Dwelling Units to be Weatherized and Reweatherized (B+C)	4,700
E Average Vehicle & Equipment Acquisition Cost per Unit (A divided by D)	0
AVERAGE COST PER DWELLING UNIT (DOE RULES*)	
F Total Funds for Program Operations	28,195,300
G Total Dwelling Units to be Weatherized and Reweatherized (from line D)	4,700
H Average Program Operations Cost per Unit (F divided by G)	5,999
I Average Vehicle & Equipment Acquisition Cost per Unit (from line E)	0
J Total Average Cost per Dwelling (H plus I)	5,999

II.5 Energy Savings

Method used to calculate energy savings:

WAP algorithm:

Other (describe below):

Energy savings will be calculated by energy auditors using the WAP Algorithm. Since this is the first year the Weatherization Assistance Program will apply to Puerto Rico, there is no data from previous years about the energy savings per unit. According to WAP data and studies performed for other states, the average energy savings per unit is 30 MBTU and typically hot climates regions save much less energy than cold climate regions. Being Puerto Rico a hot climate territory and, assuming an average of 15MBTU/year per unit, therefore it is expected to have an energy saving of 70,500 MBTU/year.

Estimated energy savings (MBTU): 70,500

Estimated prior year savings: Not applicable

Actual: Not applicable

If variance is large, explain:

II.6 Training, Technical Assistance, and Monitoring Activities

Monitoring

Being the first year in the WAP, EAA will combine rigorous field monitoring by the grantee with an extensive training and a technical assistance program to identify areas for maintaining and improving work quality, efficiency, delivery of program services, and to correct subgrantee administrative and management problems. Field monitoring also provides an opportunity for on-site training and

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technical assistance and the identification of areas where more extensive training and additional monitoring is needed.

EAA will use \$ 1,702,600 from DOE funding for the purpose of monitoring, training and technical assistance. The subgrantee will use \$6,604,550 for the same purposes.

Training and technical assistance (T&TA)

EAA will hire and bring to Puerto Rico experienced professionals with vast experience in WAP training. Training sessions will be held to service grantee staff, subgrantee staff, auditors, contractors, inspectors and administrative staff. Various training sessions will be held through the Program duration with different approaches and scopes. Some of the seminars could take place on site and others in centralized locations. Since there is no experience in the Weatherization Assistance Program in Puerto Rico, the funding for the T&TA will be used as much as needed.

A portion of the training sessions will cover all aspects of the Program. Areas such as rules, regulations, policies, procedures, reports, data entry and forms will be covered. This training will be aimed in fulfillment of state and federal, program, fiscal, and technical standards.

Other training sessions will be aimed at technical aspects. These will cover areas such as using WAP algorithms, energy savings analysis, creating cost effective job work scopes, managing crews and contractors, materials installation, HVAC courses for WAP policies, moisture and mold, lead safe practices, inspection, and client education.

Trainings, in general, could cover the following areas:

- Outreach and application procedures
- Income documentation
- Energy audit procedures
- Record and file maintenance
- Insulation techniques
- Health and safety
- OSHA requirements
- Post inspection techniques
- Reporting procedures
- Coordination with other programs
- New employee training
- Quality control
- Fiscal record keeping and reporting
- Special non-traditional approaches to specific dwelling units
- Hot climate initiatives
- Appliances efficiency
- Solar thermal training

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- Solar Photovoltaic training
- Heat transfer "R" values training

Grantee field staff visits will be performed on a regular basis to monitor the Program's progress. During the performance of these monitoring visits, staff may observe areas where subgrantee and contractors needs assistance. A Program Officer may determine that additional training is needed for a particular sub-recipient or the sub-recipient may request it.

In addition to training sessions held in Puerto Rico, State weatherization staff (grantee and subgrantee staff) will attend appropriate out of state meetings, conferences and training sessions. Staff will be required to attend appropriate training to maintain the skills and knowledge needed to ensure quality program operation.

II.7 DOE-Funded Leveraging Activities

Although EAA does not expect DOE-funded leveraging activities, they will promote to leverage funds from non-federal or federal resources to supplement the weatherization program. It is expected that the funds will be used specifically for training of the weatherization network.

II.8 Policy Advisory Committee Members

The Policy Advisory Council has special qualifications and sensitivity with respect to solving the problems of low-income persons, and is broadly representative of organizations and agencies including consumer groups that represent low-income persons. The Council has the responsibility of advising the agency managing the allocation of financial assistance. Following is a list of the Policy Advisory Council Members with their names and contact information:

Prof. Rossana López León Director Office of the Advocate for Persons of Advanced Age P.O. Box 191179 San Juan, Puerto Rico 00919-1179
Mr. José Raúl Ocasio García Director Office of the Advocate for Handicapped Persons P.O. Box 41309 San Juan, Puerto Rico 00940-1309
Ms. Janitsia Irrizary Secretary of the Department of the Family Department of the Family P.O. Box 11398 San Juan, Puerto Rico 00910-1398

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Eng. Antonio Medina President Puerto Rico College of Engineers and Surveyors P.O. Box 363845 San Juan, Puerto Rico 00936-3845
Architect José A. Moreno President Puerto Rico College of Architects and Landscape Architects P.O. Box 41176 San Juan, Puerto Rico 00940-1176
Mr. Antonio García Padilla President University of Puerto Rico Jardín Botánico Sur 1187 Calle Flamboyán San Juan, Puerto Rico 00926-1117
Eng. Erwin E. Kiess Rivera Executive Director The Infrastructure Financing Authority Capital Center Building North Tower, Office 1601 Arterial Avenue Hostos 235 Hato Rey, Puerto Rico 00918-1433

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

Pursuant to 10 CFR Part 440.14 (a), Puerto Rico is required to hold one or more public hearings to receive comments on the proposed State Plan. A public hearing for the WAP ARRA funding in Puerto Rico was held on May 5, 2009 at 9:30 AM. The hearing took place at Training Hall, 4th floor of the Cruz A. Matos Building, Highway 8838 Km 6.3, Sector El Cinco, Río Piedras, Puerto Rico (Environmental Agencies Building next to Botanical Garden). For information call (787) 999-2200 x-2888.

A copy of the hearing notice is available at www.aae.gobierno.pr. A copy of the proposed State Plan is provided for revision on the Internet page www.aae.gobierno.pr starting on April 25, 2009, and during work days, from 8:00 A.M. to 4:00 P.M., in the EAA, located in the 8th floor of the Cruz A. Matos Building, Highway 8838 km 6.3, Sector El Cinco, Río Piedras. The hearing announcement was published in Primera Hora newspaper on April 20, 2009 and a date change clarification notice was published in April 25, 2009 also on Primera Hora newspaper.

Newspapers that publicized the hearings and the dates that the notice ran
Primera Hora-April 20, 2009 (Clarification Notice-April 25, 2009)

Hearing Date:
May 5, 2009

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II.10 Adjustments to On-File Information

These adjustments are not applicable since this is the first year (2009) of the WAP in Puerto Rico. A Master File (On-File) was created and included in this document for Puerto Rico Weatherization Assistance Program.

II.11 Miscellaneous

In the event that a disaster results in a Presidential or Gubernatorial order declaring a Federal or State Emergency, grantee and subgrantee may be asked to provide help in assisting damaged low-income homes, emergency clean-up activities or in public areas that benefit low-income clients. Typically the reimbursement for these services is through the Federal Emergency Management Agency (FEMA).

Puerto Rico will implement the Hot Climate Whole House Weatherization practices.

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III.1 Eligible Population

A dwelling unit shall be eligible for weatherization assistance if it is occupied by a family whose income is at or below 200% of the poverty level determined in accordance with criteria established by the Director of the Office of Management and Budget (OMB) or contains a member who has received cash assistance payments under Title IV or XVI of the Social Security Act or applicable State or local law at any time during the 12-month period preceding the determination of eligibility for weatherization assistance. Eligibility for other energy programs under ARRA is not covered in this document.

The 2009 ARRA income eligibility thresholds are the following:

<u>Size of Family Unit</u>	<u>OMB Threshold</u>	<u>200%</u>
1	\$ 10,830	\$ 21,660
2	\$ 14,570	\$ 29,140
3	\$ 18,310	\$ 36,620
4	\$ 22,050	\$ 44,100
5	\$ 25,790	\$ 51,580
6	\$ 29,530	\$ 59,060
7	\$ 33,270	\$ 66,540
8	\$ 37,010	\$ 74,020
Each additional member add	\$ 3,740	\$ 7,480

III.1.1 General Description

Definition of income used to determine eligibility: Income refers to total cash receipts, before taxes, from all sources for all people living in the dwelling unit. This includes money, wages and salaries before any deductions but do not include food or rent in lieu of wages. Other receipts would be public assistance, social security, unemployment and workers compensation, strike benefits from union funds, veteran's payments, training stipends, regular foster parent grants or payments, alimony, child support, and military family allocations or other regular support from an absent family member or someone not living in the household, private pensions, government employee pensions, regular insurance or annuity payments, grants, scholarships and work study, income from dividends, interest, rents, royalties, or periodic receipts from estates or trust and lottery earnings if paid monthly or annually.

Not considered income are capital gains, any assets drawn down as withdrawals from a bank, sale of property, house, or car, tax refunds, gifts, lump-sum inheritances, one-time insurance payments, or compensation for injury. Also excluded are non-cash benefits, food or rent received in lieu of wages, energy grants, student loans, and bank loans.

The period of time for income eligibility will be the 12 month period preceding the determination of eligibility for weatherization assistance.

Definition of children: Below the age of 6

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Eligible applicants are served without regard of race, color, national origin, sex or religion.

III.1.2 Selection of Areas to be Served

Since the climate in Puerto Rico exhibits small variations between the low elevations and the mountains, the location of the weatherized units is not considered a factor for the distribution of the units. For this reason, the 2000 Data Census was used for the distribution by population of the units to be weatherized throughout the island. A minimum of 30 units is assigned to each Municipality, such that all municipalities have an attractive minimum number of units for a contractor to weatherize. The remaining portion of the total is distributed in accordance with the municipalities' population. The following is an approximate distribution by municipality of the units to be weatherized.

Municipality	Population (2000 Census)	Percentage of PR Population (%)	*Number of units to be weatherized
Adjuntas	19,143	0.5	42
Aguada	42,042	1.1	56
Aguadilla	64,685	1.7	70
Aguas Buenas	29,032	0.76	48
Aibonito	26,493	0.7	46
Añasco	28,348	0.74	48
Arecibo	100,131	2.63	92
Arroyo	19,117	0.5	42
Barceloneta	22,322	0.59	44
Barranquitas	28,909	0.76	48
Bayamón	224,044	5.88	169
Cabo Rojo	46,911	1.23	59
Caguas	140,502	3.69	117
Camuy	35,244	0.93	52
Canóvanas	43,335	1.14	57
Carolina	186,076	4.89	145
Cataño	30,071	0.79	49
Cayey	47,370	1.24	59
Ceiba	18,004	0.47	41
Ciales	19,811	0.52	42

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Cidra	42,753	1.12	56
Coamo	37,597	0.99	53
Comerío	20,002	0.53	42
Corozal	36,867	0.97	53
Culebra	1,868	0.05	31
Dorado	34,017	0.89	51
Fajardo	40,712	1.07	55
Florida	12,367	0.32	38
Guánica	21,888	0.57	44
Guayama	44,301	1.16	57
Guayanilla	23,072	0.61	44
Guaynabo	100,053	2.63	92
Gurabo	36,743	0.96	53
Hatillo	38,925	1.02	54
Hormigueros	16,614	0.44	40
Humacao	59,035	1.55	67
Isabela	44,444	1.17	58
Jayuya	17,318	0.45	41
Juana Díaz	50,531	1.33	61
Juncos	36,452	0.96	53
Lajas	26,261	0.69	46
Lares	34,415	0.9	51
Las Marías	11,061	0.29	37
Las Piedras	34,485	0.91	51
Loíza	32,537	0.85	50
Luquillo	19,817	0.52	42
Manatí	45,409	1.19	58
Maricao	6,449	0.17	34
Maunabo	12,741	0.33	38
Mayagüez	98,434	2.58	91

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Moca	39,697	1.04	55
Morovis	29,965	0.79	49
Naguabo	23,753	0.62	45
Naranjito	29,709	0.78	48
Orocovis	23,844	0.63	45
Patillas	20,152	0.53	42
Peñuelas	26,719	0.7	47
Ponce	186,475	4.9	146
Quebradillas	25,450	0.67	46
Rincón	14,767	0.39	39
Río Grande	52,362	1.37	62
Sabana Grande	25,935	0.68	46
Salinas	31,113	0.82	49
San Germán	37,105	0.97	53
San Juan	434,374	11.41	299
San Lorenzo	40,997	1.08	55
San Sebastián	44,204	1.16	57
Santa Isabel	21,665	0.57	43
Toa Alta	63,929	1.68	70
Toa Baja	94,085	2.47	88
Trujillo Alto	75,728	1.99	77
Utua	35,336	0.93	52
Vega Alta	37,910	1	53
Vega Baja	61,929	1.63	68
Vieques	9,106	0.24	36
Villalba	27,913	0.73	47
Yabucoa	39,246	1.03	54
Yauco	46,384	1.22	59
Total	3,808,610	100%	4700

*The number of units shown in this table is an approximate and is based on an average expenditure of \$5999.00 per unit. These numbers may vary if the average expenditure changes.

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III.1.3 Priorities

As stated in 10 CFR Part 440.1, Purpose and Scope, providers shall use an application prioritization system which, to the maximum extent practical, prioritizes weatherization assistance to program eligible persons who are elderly, persons with disabilities, families with children, high residential energy users, and households with high energy burden.

III.2 Climatic Conditions

The climate of Puerto Rico falls into the tropical climatic zone. Temperatures are moderate year round, with a range from 70 °F (21 °C) to 90 °F (32 °C) in the lower elevations, and between 60 °F (16 °C) and 80 °F (27 °C) in the mountains. Puerto Rico averages close to 4,500 cooling degree-days. The humidity runs continuously at around 80%. The island is vulnerable to hurricanes, between the months of August through November.

III.3 Weatherization Work

III.3.1 Type of Work to be Performed

The work done in each unit will be determined by a DOE approved energy audit. Due to the warm climate in Puerto Rico, all weatherization measures that are performed in other U.S states regarding heating systems are not applicable. Basically, the weatherization work in Puerto Rico will consist of roof insulation, air leakage in air conditioned areas, solar water heaters, replacement of refrigerators with Energy Star rated units, replacement of incandescent lamps with compact fluorescent lamps, base load reduction, replacement of shower heads, replacement of windows, and work items that mitigate energy-related health and safety concerns.

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III.3.2 Energy Audit Procedures

Puerto Rico will use the National Energy Audit Tool (NEAT) for single family audits. NEAT has been developed by DOE and is part of the Weatherization Assistant and is maintained by Oak Ridge National Laboratory (ORNL). The Weatherization Assistant is posted to the WAPTAC and ORNL websites (<http://www.waptac.org/sp.asp?id=8452> and <http://weatherization.ornl.gov>, respectively).

In cases for multifamily audits (five dwelling units or more), energy audits will be performed using TREAT. TREAT was developed by TAITEM Engineering and Performance Systems Development (PSD), Inc., and there is a fee associated with the use of it.

There is no expectation on weatherize mobile homes in Puerto Rico. If it would be necessary, a DOE approved tool for mobile homes would be used. Auditors shall not be affiliated with contractors that perform weatherization work.

III.3.3 Final Inspection

As stated in 10 CFR 440.16(g), a dwelling unit may be reported completed as long as the subgrantee, or its authorized representative, has performed a final inspection and certifies that the work has been completed in a workmanlike manner. The final inspection must be performed by a State certified inspector. The inspector shall not be affiliated with the contractor that performs the work. The signed inspection form certifies that measures installed should, under reasonable conditions, save energy and make the dwelling more comfortable for the inhabitants. If a designated measure is not installed, then a written explanation must be included in the file and noted on the inspection form.

During the monitoring process to subgrantees, approximately 10% of completed jobs will be inspected by the grantee to evaluate a sampling of work quality, work orders, and post work inspections. In addition, all summary sheets and subgrantee reports outlining measures on each completed job will be reviewed and entered into a statewide database.

III.3.4 Assessment of Effectiveness

In order to document the effectiveness of the Program, the Subgrantee is encouraged to obtain energy usage information from occupants of the dwellings to be weatherized. The Subgrantee shall obtain from the occupant's energy usage bills that cover the period for six months prior to weatherization and twelve months after weatherization. Usage information can be used to compare actual savings with projected savings. The results can be used to improve the program, improve the prioritization of the measures, and the training needs.

Other measures to assure effectiveness of the Program are to implement tools that track the weatherization costs in comparison to weatherization priorities, and compare the program with other states.

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III.4 Health and Safety

The primary goal of the Weatherization Assistance Program (WAP) is energy conservation. However, installing energy conservation measures sometimes requires addressing certain health and safety problems that may exist in client's homes. If not done properly, those same measures can also create or worsen other health and safety conditions. Many of the buildings that are weatherized have serious deficiencies that can affect the health and safety of both residents and staff performing weatherization work. EAA weatherization protocols will incorporate steps to review areas that affect health and safety as well as to take appropriate action during the course of weatherization where it is allowable and practical to do so.

Subgrantee health and safety

EAA will ensure that subgrantee employees work under safe conditions.

Crew and contractor health and safety

Providers shall comply with all Occupational Safety and Health Administration (OSHA) requirements at all times. This includes the requirement that staff personnel working on the homes will utilize the appropriate personal safety equipment when necessary and receive training on the use of material safety data sheets, first aid equipment, fire extinguishers, and other safety equipment. Also, the subgrantee is required to ensure that crew and contractors follow safe work practices with regard to lead paint hazards.

Client health and safety

EAA will take all reasonable precautions against performing work on homes that will subject workers or clients to health and safety risks. The subgrantee is required to consider the health concerns of each occupant prior to initiating work on a dwelling unit.

In the course of performing an energy audit, the energy auditor is required to meet with a member of the household and complete a client questionnaire. This questionnaire provides the auditor with information about the dwelling unit, the lifestyle of its occupants, and it can direct the auditor to areas where energy can be conserved. In addition, there are pertinent questions about previous health problems and occupancy practices that can lead the auditor to identify health and safety concerns. Once identified, these areas can be dealt with through various means ranging from client education, to corrective action through the weatherization work scope. During the interview with the customer, the local provider shall explain the activities that will be occurring within and to the home, when the weatherization work begins, and how that work may impact the living space.

The auditor is also required to complete a visual health and safety inspection. Where serious concerns are found that cannot be addressed through weatherization, clients are advised of these possible hazards in writing in order that they may make informed decisions regarding their safety. Where necessary, clients will be advised in writing to relocate from the unit during installation of energy conservation materials, to ensure the household's safety. Weatherization measures that could

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potentially affect the health and safety of clients or crew members shall be undertaken only after steps are taken to minimize or eliminate risks associated with the measure. The potential risks to be considered prior to providing weatherization assistance to a client are the following:

1. **BIOLOGICALS** - Information on biological hazards is obtained through the client questionnaire and by means of the visual inspection of the unit. Certain hazards, like mold and mildew are sometimes identified, and clients are notified by means of a form developed for this purpose. EAA will ensure that proper training and technical assistance on biological hazards is provided to employees.

EAA will conduct regular training to educate employees on moisture and mold issues. These training seminars are intended to help the subgrantee to identify the conditions that may cause problems or exacerbate mold problems as a result of weatherization, and to evaluate potential work scopes from the perspective of analyzing the house as a system. Instruction is focused on improving diagnostic knowledge before weatherization, to identify and mitigate moisture problems, assess mold related problems, and to assure that the safest and most responsible work scopes are performed to protect client's health and safety within the Department of Energy (DOE) Regulations. Additional information on the procedures to follow regarding the suspected or actual presence of mold in households will be outlined in the Operations Procedure Manual.

2. **COMBUSTION APPLIANCES AND COMBUSTION GASES**- The following tests are required in the course of performing the energy audit, weatherization work, and post inspection of each building and are designed to identify health and safety problems and to ensure that weatherization work does not exacerbate any of these concerns. The subgrantee is also required to conduct periodic inspections of all analytical equipment to assure accuracy and appropriate calibrations as specified by the manufacturer.

The auditor is required to test the ambient air in the area where a combustion appliance is located. These tests are conducted pre and post weatherization work in order to detect and correct significant levels of toxic or combustible gases in the ambient air. Auditors are required to complete an air quality checklist for every building weatherized.

3. **FIRE HAZARDS** - Potential fire hazards are identified during the visual inspection. Obvious hazards must be corrected before work can proceed.

4. **EXISTING OCCUPANT HEALTH PROBLEMS** - Information on existing occupant health problems is collected on the client questionnaire. Strategies for dealing with client health issues will be covered in EAA-sponsored technical assistance seminars, and in the course of providing routine technical assistance to employees.

5. **INDOOR AIR QUALITY** - The presumed presence of asbestos is determined during the visual inspection of the unit. The subgrantee is generally advised to avoid disturbing asbestos that is not friable, and to not install measures where asbestos is present, or suspend work until it is safe to proceed. In multi-family buildings, owners must show evidence of proper asbestos removal prior to commencement of weatherization work.

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Radon is known to exist only in limited parts of Puerto Rico. When a building has been identified as having a radon problem, precautions are taken by the subgrantee to ensure the safety of the crews and clients while the weatherization work is completed. In general, weatherization measures have been found to prevent radon from infiltrating into assisted units.

6. LEAD PAINT - Lead based paint hazard control is an important service provided to maintain the health and safety of weatherization clients. Since the vast majority of dwelling units that subgrantee encounters were built prior to 1978, lead-based paint is an area of major concern from the standpoint of client and worker safety.

The subgrantee is required to have an EPA Certified Lead Abatement Supervisor on staff. Puerto Rico will provide training for lead abatement supervisors for weatherization subgrantee. The subgrantee is required to send representative staff to each of these training sessions. Procedures to follow regarding the suspected or actual presence of lead in the home will be outlined in the Operations Procedure Manual.

The subgrantee is required to provide building occupants with a copy of the US Environmental Protection Agency (EPA) publication "Protect Your Family From Lead in Your Home" (EPA 747-K-99-001) when the home was constructed prior to 1978.

7. BUILDING STRUCTURE - Incidental repairs will be performed as needed. In cases where extensive repairs are needed before weatherization assistance can be provided, work will be delayed until repairs are made.

8. ELECTRICAL ISSUES - EAA will require the subgrantee to ensure that work is performed in accordance with state and local codes, and monitors compliance with this requirement during on-site inspections. The visual inspection of the unit includes an analysis of electrical hazards, and subgrantee must ensure that all electrical hazards that exist in areas where weatherization work is being done are corrected prior to commencement of work.

III.5 Rental Procedures

As specified in 10 CFR 440.22 (b), the subgrantee may weatherize rental dwelling units. The following conditions shall be followed when weatherizing rental units:

- 1) No rental unit dwelling shall be weatherized without first obtaining a written permission of the owner or the owner's authorized representative.
- 2) Rents shall not be raised because of the increased value of dwelling unit due solely to weatherization assistance provided.
- 3) No undue or excessive enhancement shall occur to the value of the dwelling unit.
- 4) The benefits of weatherization assistance shall accrue primarily to the low income tenants.

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III.6 Program Management

III.6.1 Overview

The Puerto Rico Weatherization Assistance Program will be administered by the Energy Affairs Administration (EAA). The EAA belongs to the Commonwealth of Puerto Rico and among the services it provides are energy inspections, technical assessment, and education on energy efficiency and renewable energy.

III.6.2 Administrative Expenditure Limits

The EAA will retain approximately 5% of the grant for their administrative costs and 5% will be made available to program subgrantee.

III.6.3 Monitoring Approach

Monitoring will consist of visits to subgrantee offices and assisted units, in addition to desk audits, where the subgrantee performance reports and other information will be reviewed. On-site monitoring of subgrantee will be done to identify methods, deficiencies, and success in program operations and to assess technical assistance needs to develop appropriate training courses. The grantee field staff will perform periodic monitoring, including prioritization of weatherization measures, job costs, material standards, and verification that the completed work is reflected in the job files.

The monitoring process also consists of monthly reporting by the subgrantee, on-site visits by the grantee program and fiscal staff, and an annual evaluation of the subgrantee that reviews compliance with all program rules, energy audit procedures, crew operations, client interaction, and data collection and reporting. EAA will review monthly reports from subgrantee for early identification of subgrantee problems and determine the program and operational effectiveness of the subgrantee. On-site monitoring could include, but not limited to, financial records, inventory, client files and work completed.

When problems are discovered, a corrective action plan will be developed for areas needing improvement and the subgrantee will be formally notified in writing of actions to be taken. The subgrantee will have the option of either accepting the decision or requesting an administrative review.

Each weatherized unit shall be inspected by the subgrantee to ensure that the work is in compliance with required specifications before the unit is reported to EAA as completed. A complete inspection, signed by the subgrantee's inspector shall be placed in each job file.

III.6.4 Training and Technical Assistance Approach

The Training and Technical Assistance (T&TA) Plan activities are intended to maintain or increase the efficiency, quality, and effectiveness of WAP at all levels. Such activities should be designed to maximize energy savings, minimize production cost, improve program management and crew/contractor quality work, and/or reduce the potential for waste, fraud, abuse, and

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mismanagement. Training is tied into an overall certification program, designed to bring the skill and competence level of all weatherization subgrantee staff and contractors to uniform standard.

III6.5 Energy Crisis Plan

In the event of a natural or man-made disaster, Puerto Rico will allow providers to assist their customers with weatherization funds in combination with other funds, typically from FEMA. The President or the Governor of Puerto Rico must declare a Federal or State Emergency before providers will be allowed to use existing resources to address the needs of the people in the area. Activities will be limited to households eligible under the current income eligibility criteria.

Weatherization agencies can provide technical assistance, recovery and clean-up efforts and crisis management. Agencies will be required to submit a plan of activities, timeframe and any special considerations to go beyond the typical recovery efforts. Agencies will be required to report activities performed.

Agencies shall coordinate their efforts with other disaster assistance programs, like FEMA, in order to assure that activities funded through the Weatherization Program would not otherwise be covered by other Programs or agencies. All work completed during disaster periods shall conform to the Puerto Rico Weatherization Program standards.