



Arizona
Department
of Housing

WEATHERIZATION ASSISTANCE PROGRAM FINAL PLAN

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ANNUAL FILE

IV.1 Sub-grantees

Arizona Department of Housing (ADOH) uses ten sub-grantees to perform Weatherization service throughout the state, excluding the Indian reservations, which are funded independently. The sub-grantees are as follows:

Community Action Human Resources Agency (CAHRA)

Mary Lou Rosales, Executive Director
109 N Sunshine Blvd., Eloy AZ 85131
Phone: 520-466-1112, Fax: 520-466-0013
E-mail: mlrosales@cahrapinal.org
(Pinal County) CD 1,6,7,8

City of Phoenix, Neighborhood Services Department

Bruce Nelson, Program Manager
200 W Washington, 4th Floor, Phoenix, AZ 85003
Phone: 602-262-6286, Fax: 602-534-8213
E-mail bruce.nelson@phoenix.gov
(City of Phoenix) CD 3, 4

Gila County Office of Community Services

Malissa Buzan, Community Services Director, Housing Service Manager
5515 S Apache Ave., Suite 200, Globe, AZ 85501
Phone: 928-402-8693, Fax: 928-425-9468
E-mail: mbuzan@co.gila.az.us
(Gila County) CD 1

Maricopa County Human Services Department, Community Development Division

Amy Jacobson, Assistant Director
234 N Central, 3rd Floor
Phoenix, AZ 85004
Phone: 602-372-1528, Fax: 602-372-2292
E-mail: JacobsonA@mail.maricopa.gov
Maricopa County, excluding City of Phoenix & City of Mesa) CD 2, 3, 4, 5, 7
A New Leaf Mesa Community Action Network (MesaCAN)

Beth Noble, Grants and Contract Manager

868 E University Dr., Mesa, AZ 85203
Phone: 480-477-4037, Fax 480-969-0039
E-mail: bnoble@turnanewleaf.org
(City of Mesa exclusively) CD 5, 6

Northern Arizona Council of Governments (NACOG)

Bob Baca, Operations Director
119 E Aspen, Flagstaff, AZ 86001
Phone: 928-774-3759, Fax: 928-774-3758
E-mail: bbaca@nacog.org
(Apache, Coconino, Navajo, Yavapai Counties) CD 1, 2

Pima County Community Development & Neighborhood Conservation

Daniel Tylutki, Community Development Program Manager

2797 E Ajo Way, 3rd Floor, Tucson, AZ 85713

Phone: 520-724-6754, Fax: 520-243-6796

E-mail: Daniel.Tylutki@pima.gov

(Rural Pima County) CD 7, 8

Southeastern Arizona Community Action Program (SEACAP)

Librado M. (J.R.) Ramirez, Executive Director

283 W 5th Street, Safford, AZ 85546

Phone: 928-428-4653, Fax: 928-428-1559

E-mail: sacacti1001@qwestoffice.net

(Graham, Greenlee, Cochise, Santa Cruz Counties) CD 1, 7, 8

Tucson Urban League (TUL)

Terisha Ellis, Housing Department Facilitator

2305 S Park Ave., Tucson, AZ 85713

Phone: 520-791-9522 Ext 2240, Fax 520-623-9364

E-mail: tellis@tucsonurbanleague.org

(City of Tucson, City of South Tucson) CD 8

Western Arizona Council of Governments (WACOG)

Jack Valentine, Program Manager Housing Programs/Weatherization

224 S Third Ave., Yuma, AZ 85364

Phone: 928-217-7133, Fax: 928-329-4248

E-mail: jackv@wacog.com

(LaPaz, Mohave, Yuma Counties) CD 2, 7

IV.2 Production Schedule

Arizona allocation for PY16 is \$1,109,782. The sub-grantee allocations are calculated according to the past allocation method, which was developed in conjunction with the sub-grantees and the Weatherization Policy Advisory Committee.

Grantee	City	Estimated	
		PY16 Funds	Units
CAHRA	Eloy	\$49,103	7
City of Phoenix	Phoenix	\$144,753	20
Gila County Community Action	Globe	\$33,959	5
Maricopa County Government	Phoenix	\$235,311	33
MesaCAN	Mesa	\$34,248	5
NACOG	Flagstaff	\$145,111	20
Pima County	Tucson	\$38,207	5
SEACAP	Safford	\$95,154	13
Tucson Urban League	Tucson	\$96,989	13
WACOG	Yuma	\$119,428	17
TOTALS		\$992,263	138

Units based on estimated program operations and an average cost per house \$7105

IV.3 Energy Savings

Production and Energy Savings

These are estimates for PY16

Total Units (excluding re-weatherized)	138
Re-weatherized Units	0

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

Estimated energy savings (Mbtus): $138 \times 29.3 \text{ MBTU} = 4043.40 \text{ BTU} = 1185 \text{ KW} = 40.434 \text{ Therms}$

IV.4 DOE-Funded Leveraging Activities

The state does not utilize funds for leveraging activities. However, parallel programs are run through LIHEAP and utility funding.

IV.5 Policy Advisory Council

The state's Policy Advisory Council (PAC) is a collaboration of people from various organizations from around the state, each represents the interests of low-income and priority populations through advocacy or assistance programs or both. The PAC are from local utility companies, Nonprofits, and local governments. The following is a current PAC member list and a brief description of the organization including those persons whom they serve:

Arizona Community Action Association -ACAA

Cynthia Zwick, Executive Director

2700 N 3rd Street, Ste. 3040

Phoenix, AZ 85004

E-mail: cswick@azcaa.org

602-604-0640 Work

ACAA is a 501 (c)(3) non-profit agency created in 1967 to address poverty across Arizona. Through a collaboration of nearly 300 organizations and individuals, ACAA develops and implements strategies to address and ultimately eliminate poverty.

Arizona Public Service - APS

Jerry Mendoza, Account Executive

Marketing Programs

P.O. Box 53999, M.S. 8028

Phoenix, AZ 85072-3999

E-mail: Jerardo.Mendoza@aps.com

602-250-2243 Work

APS is Arizona's largest and longest serving electric company. APS funds programs to assist limited income households with energy savings through their Energy Support Program or the Medical Care Equipment Program. APS' Project SHARE (Service to Help Arizonans with Relief on Energy) specifically targets persons 60 years of age and older, persons under 60 experiencing special hardships and persons with disabilities. The SHARE program assists these targeted persons with payment of their electric bill.

Arizona Public Interest Research Group (AZ-PIRG)

Diane E. Brown, Executive Director

130 N Central Ave., Suite 202

Phoenix, AZ 85004

E-mail: dbrown@arizonapirg.org

602-252-9227 Work

Arizona PIRG's mission is to deliver persistent, result-oriented public interest policy that protects consumers, encourages a fair, sustainable economy, and fosters responsive, democratic government. AZ-PIRG is working to build public support across the state to implement energy efficiency programs available in Arizona.

Maricopa County Human Services Department (MCHSD), Community Development Division

Amy Jacobson, Assistant Director

234 N Central, 3rd Floor

Phoenix, AZ 85004

Phone: 602-372-1528, Fax: 602-372-1526

E-mail: JacobsonA@mail.maricopa.gov

Maricopa County, excluding City of Phoenix & City of Mesa) CD 2, 3, 4, 5, 7

The MCHSD mission is to provide and coordinate essential support and social services to vulnerable populations to enhance economic, educational, and social opportunities and strengthen communities. MCHSD funds and administers housing (weatherization, housing rehabilitation, emergency repairs, foreclosure prevention) and social service programs (Head Start, Adult Day Health Care, Utility Assistance, Homeless Assistance) for low-income households including children, families, elderly and the disabled.

Foundation for Senior Living (FSL)

Carrie Smith, Chief Operating Officer

1201 E Thomas Rd.

Phoenix, AZ 85014

E-mail: csmith@fsl.org

602-285-0505 ext. 142 – Work

For more than 40 years, FSL has worked to improve the quality of life for seniors and those with disabilities, as well as their family caregivers. FSL is one of the largest 501(c)3 not-for-profit organizations in Arizona. Since 1974, FSL has helped Arizonans facing issues of hunger, disabilities, aging, illness, loneliness, and substandard housing.

Gila County

Malissa Buzan, Community Action & Housing Services Manager

5515 S Apache, Suite 200

Globe, AZ 85501

E-mail: mbuzan@co.gila.az.us

928-402-8693 - WorkThe Community Action Program (CAP) in Gila County has been in existence since 1980. CAP receives funding from the Arizona Department of Economic Security, Pinal Gila Council for Senior Citizens, Arizona Department of Housing, and many other funding sources. The funding is geared towards helping residents become more self-sufficient through case management and emergency assistance. Programs offered through Gila County include Utility Payment/Deposit Assistance, Eviction Prevention Rent Assistance, Utility Discount Programs - APS, SW Gas, Lifeline, Weatherization, Housing Rehabilitation and Emergency Repairs. Applicants for assistance must meet federal Poverty Income guidelines and have a documented need.

Northern Arizona Council of Governments (NACOG)

Bob Baca, Operations Director

119 E Aspen

Flagstaff, AZ 86001

E-mail: bbaca@nacog.org

928-774-3759 Work

NACOG is a nonprofit membership corporation representing local governments to provide a wide variety of services within the four Arizona counties of Apache, Coconino, Navajo, and Yavapai. NACOG is the Area Agency on Aging, Head Start and Workforce Development agency for the region. Additionally, NACOG provides weatherization, housing rehabilitation and emergency repairs for low-income households, targeting the elderly and families with children.

Salt River Project (SRP)

Bonnie Temme, Community Relations Program Manager

P.O. 52025

Phoenix AZ 85072-2025

E-mail: Bonnie.temme@srpnet.com

602-236-9915 Work

SRP is the oldest multipurpose federal reclamation project in the United States. SRP been serving central Arizona since 1903, providing electricity to approximately 1 million retail customers in a service area that spans 3 Arizona counties. SRP offers a variety of programs to help customers save energy and money. These programs target appliance recycling, rebates for duct test and repair, financing for larger energy-efficiency projects, rebates for purchase of new energy-efficient heat pumps, rebates for energy efficient pool pumps and discounted prices for CFL bulbs.

Southwest Gas (SWG) Corporation

Kimberly Lukasiak, Senior Analyst/Energy Efficiency

5241 Spring Mountain Road

Las Vegas, NV 89193-8510

P.O. Box 98510, Mail code: LVB-105

Las Vegas, NV 89193-8510

E-mail: kimberly.lukasiak@swgas.com

702-876-7149 Work

SWG has been providing natural gas service for eighty plus years and currently serves more than 1.9 million customers throughout Arizona, Nevada and California. SWG has customer assistance programs for low-income households such as no cost to the customer weatherization repairs and utility bill assistance payments in addition to rebates for appliance connections to natural gas.

UNS Energy Services/Tucson Electric Power (TEP)

Desiree Dillard, Contract Administrator

PO Box 711 (HQP505) Tucson, AZ 85702

E-mail: ddillard@tep.com

520-991-5774 Work

TEP and its sister company, Unisource Energy Services offers comprehensive energy services through reliable, traditional resources and a growing renewable power portfolio. TEP/UNS also offer many ways to help customers use energy more efficiently. Additionally, TEP/UNS offer assistance to limited income (based on federal poverty levels) customers through discounts, weatherization, and emergency bill payment programs.

IV.6 Hearing and Transcripts

Public Hearing

The Arizona Department of Housing (ADOH) held two (2) public hearings for input and comment on the Plan. The dates, times, and locations of the Public Hearings are provided to sub-grantees, Policy Advisory Council members and other interested parties through email, and posting on the Arizona Department of Housing website at www.housing.az.gov. Additionally, the hearings were advertised in the 5 major newspapers in the state including the Arizona Daily Sun (Flagstaff), Arizona Daily Star (Tucson), Arizona Republic (metropolitan Phoenix), Kingman Daily Miner (Kingman) and the Yuma Sun (Yuma). The public hearing notifications were published at least ten calendar days prior to the date of the Public Hearings scheduled for March 8th, 2016 at 1p.m. and April 13, 2016 at 10:00 a.m. Due to a technical difficulty during the April 13th Public Hearing, callers were unable to connect to the hearing. Therefore, those callers were invited to a teleconference public hearing on April 19th, 2016 at 9 a.m. The transcripts from all hearings have been attached to the SF424 Application.

IV.7 Miscellaneous

Use of Weatherization Funds for Renewable Energy Systems

10 CFR §440.18 (Allowable Expenditures) incorporates the renewable energy system provisions and specifies a ceiling of \$3,000 per dwelling for labor, weatherization materials, and related matters. The current adjusted value is \$3,545 for renewable energy systems with a SIR greater than 1.

Because the total average cost per unit exceeds the renewable measures allowance, the major effects of the regulation are to provide criteria and a procedure for integrating renewables into the WAP, and to establish a process for evaluating petitions to use new or innovative renewable energy systems in the WAP.

Section 440.21(c) (1) specifies performance and quality standards criteria for renewable energy systems. Paragraph (c) (2) establishes a procedure for submission and action on petitions by manufacturers requesting the Secretary of Energy to certify a new technology or system as an eligible renewable energy system.

Approved renewable energy systems will be listed in Appendix A of Part 440, Standards for Weatherization Materials.

Carry over Rule

*****This rule only applies if DOE allows the Grantee to carry over any remaining funds from the previous program year.**

ADOH concurs with DOE that sub-grantees should be making every effort to expend funds allocated for a specific program year in that year. ADOH has adopted the policy that any sub-grantee that does not expend at least 90% of their allocated funds for a given program year will not be eligible to carry over funds to the following program year. All agencies that spend out 90% or better of their allocated funds will be allowed to carry over any remaining unexpended funds.

The remaining unexpended funds from sub-grantees that did not meet the 90% carry over test will be pooled together and reallocated. The funds will be split equally among the agencies that did meet the 90% expenditure requirement.

Performance Based Funding Re-allocation

New monthly performance goals and standards will be made a part of the contractual agreement between the Grantee and Sub-grantee. The Grantee may, based on a review of the progress of sub-grantee completed units and expenditures, move funds from a non or under-performing sub-grantee to a sub-grantee meeting or exceeding their performance goals. The Grantee will review the performance of all sub-grantees on a monthly basis. The first re-allocation of funds would occur at 6 months with additional re-allocations if needed at the 8 month and 10-month time periods. It is the goal of the Grantee to use this method to ensure annual program funds are expended thereby reducing or eliminating carry-over and improving overall program performance.

MASTER FILE

V.1 Eligibility

Every dwelling weatherized must meet both client and building eligibility requirements.

Arizona definition of low-income:

Household Income is at or below 200% of the federal poverty level determined in accordance with criteria established by the Office of the Secretary, U.S. Department of Health and Human Services.

V1.1 Approach to determine client eligibility

- The sub-grantees are to follow the state income qualifying guidelines found in the Low-Income Home Energy Assistance Program (LIHEAP) Policy Manual available from the Arizona Department of Economic Security (DES) website at: <https://des.az.gov/services/aging-and-adult/community-services/energy-assistance>. Sub-grantees should also reference WPN 16-3 in WAPTAC
- Each client file must contain an application from the client that contains the required demographics and income for the entire family living in the residence. The file must also contain evidence provided by the sub-grantee that the client is income eligible to receive WAP services. This evidence may include, but is not limited to, third party verification from the source of income of the family or source documentation for each income source listed on the application. These documents must be retained in hard copy for each client.
- The client is eligible for weatherization services for six-months from the date the client was determined to be income eligible, contingent upon residence eligibility. During this six-month time period, an energy audit shall be completed or the eligibility of the household for weatherization will need to be re-established by re-certification of income eligibility.
- Sub-grantees shall give priority to clients based on the list of priorities established in the Arizona State Plan which includes the following:
 - Elderly
 - Handicapped
 - Families with children under the age of 5

The criteria used for determining applicant priority must be in writing and on file with the sub-grantee. An actual wait list to determine who is next to receive weatherization services must be developed with consideration given to the priority populations listed above.
- For HUD-DOE Multi-Family eligibility see Multi Family section of plan

Qualified Aliens Receiving Weatherization Benefits

Grantees are directed and encouraged to review guidance provided by Health and Human Services (HHS) under LIHEAP. This guidance can be found by going to <http://www.aspe.hhs.gov/hsp/immigration/restrictions-sum.shtml#sec1>.

HHS Information Memorandum LIHEAP-IM-25 dated August 28, 1997, states that all qualified aliens, regardless of when they entered the United States, continue to be eligible to receive assistance and services under the Low-Income Home Energy Assistance Program (LIHEAP) if they meet other program requirements.

To eliminate any possible contradiction of eligibility for Weatherization services at the state and local level for qualified aliens, the definition adopted by HHS will also apply to the DOE WAP.

HHS issued Information Memorandum LIHEAP-IM-98-25 dated August 6, 1998, outlining procedures for LIHEAP and Weatherization grantees serving non-qualified aliens to implement new status verification requirements.

To ensure continuity between LIHEAP and WAP for the many sub-grantees operating both programs, the DOE WAP will follow the interpretation as adopted by HHS.

V1.2 Approach to determine building eligibility

Eligible Structures

Once a client has been deemed income qualified then residence eligibility can be determined. Eligible residences must be safe for the occupants; sub-grantees; crews; and/or contractors to work in without concern for their health and safety.

The primary housing types served by the Arizona WAP program are single family, manufactured housing and multi-family housing. Sub-grantees should exercise caution in dealing with non-traditional type residential units such as shelters, and apartments over businesses, etc., to ensure they meet program regulations on whether the unit is eligible. Consideration on weatherizing these types of units should be coordinated with the Grantee.

The weatherization of non-stationary campers, trailers and RV's that have an eligible applicant/s is not allowed.

Sub-grantees must document the eligibility of the residence to receive weatherization assistance through the following process:

- Verify that the home's occupants are income qualified for WAP
- Verify that the home has not been weatherized before by filling out the state's No Previous Weatherization Checklist which includes examination of the following:
 - The state database
 - Previous weatherization client files
 - The Sub-grantees weatherization program internal tracking system (i.e. database or spreadsheets)
 - Visual inspection of unit for evidence of previous weatherization measures
 - Any other means at the sub-grantees disposal
- Perform a site inspection of the unit to make sure the condition of the home is safe to perform weatherization work

The Grantee will monitor for the eligibility of the residence through the following process:

- Perform a desk top review of the State's database for 100 percent of the DOE jobs. This helps to verify income levels as well as the eligibility of measures and their SIR prior to any reimbursement of expenditures to the sub-grantees.
- During field inspections, the grantee will monitor client files for proper documentation of income eligibility
- Verify that the State's No Previous Weatherization Checklist has been completed, signed and included in the client file.
- Inspect the home to make sure that it was in safe condition to work in

Re-weatherization

The Recovery Act amended the DOE Weatherization dates and now allows grantees and sub-grantees to re-weatherize homes previously weatherized prior to September 30, 1994. This provision gives grantees the flexibility to re-visit those homes that may not have received the full complement of weatherization services, including the use of an advanced energy audit or addressing health and safety concerns. DOE reminds grantees and sub-grantees that in selecting previously weatherized homes to re-visit, there remains more than 34 million federally eligible households that have received no weatherization services.

Under Energy Crisis and Disaster Relief of the Arizona State Plan, Disaster Planning and Relief is addressed and references DOE-issued Weatherization Program Notice (WPN) 12-7, which allows additional work to be done on homes due to natural disasters. Please refer to these sections and follow appropriate procedures if the sub-grantee wishes to serve homes located in disaster areas.

If the occupancy of the dwelling unit changes to another low-income family, the dwelling unit does not become eligible for additional weatherization. A dwelling is not eligible for weatherization, even if occupied by an eligible household, if a federal, state or local program has designated the dwelling for acquisition or clearance within 12 months from the date weatherization would be scheduled to be completed.

Use of WAP Funds for Add-on/Call-back Work

Grantees and sub-grantees may not charge the WAP for additional work on homes that have already been reported to DOE as completed, weatherized units. WPN 11-03 provides specific guidance on this type of activity.

Note: Under no circumstances can any of these activities be covered under the re-weatherization provisions of 10 CFR §440.18(e) (2) (iii).

Rental Requirements

All sub-grantees are required to weatherize single family and multi-family rental housing.

The State of Arizona has established a policy to ensure that sub-grantees weatherizing rental units determine financial eligibility and obtain written permission of the owner or his agent. In multiple unit buildings the state ensures 66 percent (50 percent for duplexes or four unit buildings) of the building to be eligible units. The State's policy also ensures that the benefits of weatherization accrue primarily to the tenant, including units where the tenants pay for their energy through their rent. ADOH WAP recognizes that it may weatherize shelters under conditions set forth in CFR 440.22.

State policy regarding rental units specifies that for a reasonable period of time, not less than twelve months, the tenant will not be subjected to rent increases unless those increases can be demonstrated to be related matter and conditions other than the weatherization measures performed. Sub-grantee must obtain the Landlord and Tenant's signature on the Landlord/Tenant Agreement and State policy also provides an avenue for complaint in such matters. Tenants and landlords are informed in writing that no undue or excessive enhancement shall be provided to the rental unit or building by weatherization assistance, this is to include the installation of heating and air conditioning units, and appliances, as this is required to be provided by the landlord pursuant to A.R.S 33-1324:

<http://www.Arizonaleg.state.Arizona.us/ars/33/01324.htm>.

All documentation shall remain the property of Grantee and in the event of program closure, either by Grantee or the sub-grantee, such files shall revert to Grantee. Copies of these documents need to be placed in each client file of the complex.

If a multi-unit building is under an assisted or public housing program and is identified by the U.S. Department of Housing and Urban Development (HUD), and included on a list published by DOE, that building will meet certain income eligibility requirements, and will also satisfy one or both of the procedural requirements to protect against rent increases and undue or excessive enhancement of the weatherized building under the Weatherization Assistance Program without the need for further evaluation or verification as stated in WPN 10-15- <http://www.waptac.org/Program-Guidance/2010002D2006-Program-Guidance-Documents.aspx>

Leased Dwelling Units

Note: Grantees and sub-grantees are reminded that the supporting documentation for applicants applying for weatherization that may be on a waiting list or for other reasons must have their eligibility documentation updated every 6 months from the date of the initial intake date.

Certain buildings containing rental units may comply with the income eligibility requirements when 50 percent of those dwelling units are eligible dwelling units rather than the established 66 percent identified in the regulation. (10 CFR§ 440.22(b) (2)). The buildings that are subject to the 50 percent threshold are duplexes, four-unit buildings, and certain eligible types of large multi-family buildings. In the final rule published on December 8, 2000, DOE provided guidance on what types of large multi-family buildings may be subject to the 50 percent threshold. (65 Fed. Reg. 77210, Dec. 8, 2000.)

DOE indicated that “certain eligible types of large multi-family buildings” are those buildings for which an investment of DOE funds would result in a significant energy-efficiency improvement because of the upgrades to equipment, energy systems, common space, or the building shell. (Id. at 77215) By providing this flexibility, sub-grantees are better able to select the most cost-effective investments and enhance their partnership efforts in attracting leveraged funds and/or landlord contributions. This flexibility does not apply to any other type of multifamily unit. Questions on whether a building meets the criteria should be directed to the DOE Project Officer.

The definition of “significant energy improvement” is based on specific criteria for the building in question. This must be assessed using existing conditions to determine the threshold to achieve significant energy improvements. Grantees should consult with their DOE Project Officer if there are questions related to this threshold. Additional guidance is being considered by DOE to provide Grantees criteria for what constitutes “significant energy improvement.”

As a reminder, when addressing multi-family units with DOE funds, multiply the total number of income-eligible units in the multi-family building by the current allowable per dwelling unit average cost to determine the amount of DOE funding available for weatherizing the building. While the amount of funding available for weatherizing a building is limited by the number of eligible units, the weatherization work can result in improvements to all units in the building, even those that are not eligible units. All units should be reported to DOE.

Note: Grantee and sub-grantee agencies should exercise caution when utilizing flexibility in this area. The key is the investment of DOE funds coupled with leveraged resources which result in significant energy savings. Absent this investment, lowering the eligibility to 50% may lead to disallowed costs. Sub-grantees who are uncertain on a given multi-family project should seek approval by the DOE Project Officer through their Grantee Weatherization Program Manager.

Deferrals

The decision to defer work in a dwelling is difficult, but necessary, in some cases. This does not mean that assistance will never be available, but that work must be postponed until the problems can be resolved and/or alternative sources of help are identified. Note that sub-grantees, including crews and contractors, are expected to pursue reasonable options on behalf of the client, including referrals, and to use good judgment in dealing with difficult situations.

Deferral conditions may include, but are not limited to:

- Sub-grantee is unable to fully verify client income.
- The client has known health conditions that prohibit the installation of insulation and other weatherization materials.
- The building structure or its mechanical systems, including electrical and plumbing, are in such a state of disrepair that failure is imminent and the conditions cannot be resolved cost-effectively.

- The house has sewage or other sanitary problems that would further endanger the client and weatherization installers if weatherization work were performed.
- The house has been condemned or electrical, heating, plumbing, or other equipment has been "red tagged" by local or state building officials or utilities.
- Moisture problems are so severe they cannot be resolved under existing health and safety measures and with minor repairs.
- Dangerous conditions exist due to high carbon monoxide levels in combustion appliances, and cannot be resolved under existing health and safety measures.
- The client, other household occupants or third party representatives are uncooperative, abusive, or threatening to the crew, subcontractors, auditors, inspectors, or others who must work on or visit the house.
- The extent and condition of lead-based paint in the house would potentially create further health and safety hazards.
- In the judgment of the energy auditor, any condition exists which may endanger the health and/or safety of the work crew or subcontractor, the work should not proceed until the condition is corrected.

When sub-grantees have determined a home will be deferred the sub-grantee must:

- Inform the client in writing as to why the dwelling cannot be weatherized. If there are conditions that the client must correct before service is provided, those conditions must also be stated in writing.
- Refer the client to any alternate program such as home rehab, if one is available in the area.
- Clearly indicate in the client file why the dwelling was given "deferral" status.
- Document all referrals to other programs or services in the client file.
- Provide the client any information prescribed in the Health and Safety section.

Upon denial of weatherization program services, the applicant shall be given a copy of the Sub-grantee's grievance procedure as established in the sub-grantee's adopted WPGs or program Policies and Procedures.

Each sub-grantee is to have a grievance process in place if any client is denied services, rent is increased due to the improvements on a weatherized rental property within the first 12 months after completion of the weatherization or other concerns or issues about WAP. The process must be given to the client in writing, at the time of intake. This process will be verified during fiscal monitoring of the sub-grantees.

V1.3 Definition of Children

Any person living in the home 17 years of age or younger.

V1.4 Approach with Tribal Organizations

As members of a sovereign Tribal nation, Tribal members are entitled to those services afforded to all members of that Tribal nation. In Arizona, weatherization services are provided through Tribal agencies such as the Navajo Nation and the Inter-Tribal Council of Arizona who contract directly with the U.S. Department of Energy and the utility providers. Agencies should consult with those two entities regarding work on tribal lands.

V.2 Selection of Areas to be served

Arizona utilizes 10 local Weatherization agencies to fully implement the State Plan and provide services to the eligible population of Arizona, excluding the Tribal Nations. Project service areas are historical in

nature, originating many years ago at the time of community action agency establishment in Arizona. Service area boundaries are typically drawn along county lines or tribal land boundary lines.

Individual sub-grantees must meet the requirements of 10 CFR 440.15 and are selected on the basis of their:

- Experience and performance in Weatherization or housing renovation activities;
- Experience in assisting low-income persons in the area to be served; and
- Capacity to undertake a timely and effective Weatherization Program.
- Preference is given to any Community Action Agency or other public or non-profit entity, which has, or is currently administering an effective program under 10 CFR 440.15 or under Title II of the Economic Opportunity Act of 1964, with program effectiveness evaluated by consideration of factors including, but not necessarily limited to the following:
 - The extent to which the past or current program achieved or is achieving Weatherization goals in a timely fashion;
 - The quality of the work performed by the sub-grantee;
 - The number, qualifications and experience of staff members of the sub-grantee
- Any new or additional sub-grantee shall be selected at a public hearing and must meet the above criteria
- Grantee staff onsite inspection of performance of the sub-grantee
- Transcripts of the public hearing which affirm that there are no public objections to any of the sub-grantees selected.

In addition, eligible sub-grantees must meet the following requirements:

- For units assisted with DOE funding the sub-grantee must have an in-house Building Performance Institute (BPI) Building Analyst (BA) or an agreement with a third party BPI BA to perform initial and/or final audits. The BPI BA inspector must not install any measures required by the scope of work generated from the initial audit.
- For units assisted with DOE funding the sub-grantee must have an in-house Quality Control Inspector (QCI) or an agreement with a third party QCI contractor that has had no previous history (audit or work completed) with the unit inspected. The QCI cannot be the same person who performed the initial audit.
- Sub-grantees must be in compliance with all ADOH contracts for all programs and funding sources.
- Sub-grantees must submit a comprehensive WAP Program Management Plan within 90 days of being selected to receive WAP funds. The submission of the Management Plan must include copies of liability insurance; equipment calibrations; evidence of Lead Firm Certification; project implementation schedule; and an organizational chart that outlines the job responsibilities of each person working in the WAP program and their respective certifications.
- Sub-grantees must have developed WAP Program Guidelines (WPGs) or Weatherization Policies and Procedures that have been approved by ADOH and adopted by their governing body.

The ten sub-grantees chosen to perform weatherization work are located in the Annual File under sub-grantees.

V.3 Priorities

Sub-grantees shall give priority to clients based on the list of priorities established in the Arizona State Plan which includes the following:

- Elderly
- Handicapped
- Families with children under the age of 5

The criteria used for determining applicant priority must be in writing and on file with the sub-grantee. An actual wait list to determine who is next to receive weatherization services must be developed with consideration given to the priority populations listed above.

V.4 Climatic Conditions

The climate conditions for Arizona range from low dry arid desert to mountain/alpine cold. The summer months of the desert from June through September will bring a dry heat ranging from 90–120 °F (32–49 °C), with occasional high temperatures exceeding 125 °F (52 °C). The winter months of the plateau and High Mountain/alpine range of the state experience extremely cold temperatures from cold air systems from the northern states and Canada pushing into the state bringing temperatures below 0 °F (–18 °C) to this area of the state.

Note: Arizona WAP will use the 2009 IECC climate zones. This will clearly define the different climate zone regions and reduce any confusion regarding location and minimize any conflicts that may arise in the event that local municipalities adopt future building codes. For climate zone map, please reference: <https://energycode.pnl.gov/EnergyCodeReqs/?state=Arizona>

V.5 Type of weatherization work to be done

Achieving an energy-efficient house is really a question of doing a few things very well and understanding that the house is a system, with all components of the house working together. The following are the areas we concentrate on:

- Getting the home tight (air sealing)
- Insulating the home right (focus on insulation performance, not just R-value)
- Dealing with sunlight (shade screens and reflective coatings)
- Correctly installing efficient equipment (duct sealing, pressure balanced, air flow, sizing and charge)
- Base loads (refrigerators, CFL)

V5.1 Technical Guides and Materials

Grantee, in consultation with the South West Building Science Training Center (SWBSTC) has developed Arizona's Weatherization Field Guide to be in compliance with WPN15-4. The Field Guide was distributed to all sub-grantees in June of 2015. All sub-grantees received a hard copy, digital copy and a web address where the guide can be accessed on-line. Upon receiving the Field Guide, the sub-grantee signed a document acknowledging their receipt. Sub-grantees will be held accountable to make sure all weatherization work meets or exceeds the standards set forth in the Field Guide. This document must be put in their file and updated annually.

Grantee will ensure that sub-grantees are providing their contractors with the required information on their expectation of work quality, and program guidance by including the following language in their contract:

- Sub-grantee must certify it has informed contractors that work must meet the standards as outlined in the Arizona Weatherization Field Guide and the Standard Work Specifications. This certification must be done annually and must be signed off by the Sub-grantee and an authorized employee of the contractor company.

- All energy audits performed by the sub-grantee or it's contractor will meet or exceed the requirements set forth in WPN 13-5

During fiscal monitoring, Grantee will ensure that the language and required signatures for the field guide are in the sub-grantee contractor files.

Consistent with the approved energy audit or priority list all materials used for weatherization must meet 10 CFR 440, Appendix A to Part 440—Standards for Weatherization Materials. This can be found at <http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr;sid=23fe3d3cfcc461955f6c730af864c7c7;rgn=div5;view=text;node=10%3A3.0.1.4.24;idno=10;cc=ecfr#10:3.0.1.4.24.0.85.22.50>

V5.2 Energy Audit Procedure

The WAP Energy Audit Procedure must be used by all sub-grantees to gather, record and analyze data on structures. This data must be used to deliver weatherization materials/measures in a fashion that protects the health and safety of the client, increases the durability of the structure, increases the comfort of the client and reduces the energy cost to the client in a cost effective manner.

The following audit activities must be completed on all homes utilizing WAP funds.

- A site audit that meets WPN 13-5 requirements, and records all relevant data on the structure needed to perform cost effectiveness tests is conducted.
- The Cost Effectiveness Procedure must be followed to determine cost effectiveness of potential weatherization materials/measures
- The Pressure Diagnostic Procedure must be completed and the findings documented following the Reporting Procedures
- A health and safety audit of the structure must be completed and the findings documented following the Reporting Procedures
- A final inspection of the structure must be completed and findings documented following the Final Inspection Procedures

If working in an area or municipality where code exceeds items on the priority list and a permit was pulled, code should be followed.

Priority List Single Family homes

Assumptions for Block Houses:

Pre and Post blower door = 2000 CFM @ 50 Pa
 Uninsulated block walls U-value = 0.371
 1000 Square Feet
 15% Glazing
 Single Pane, aluminum Windows U = 1.13 SHGC = 0.70

Arizona Block Housing Priority List – Zones 2 (Yuma, Phoenix)

1. Air Sealing

Primary Heating Type	Maximum Cost of 100 CFM50 Reduction (\$)
Propane	\$45

Gas	\$25
Electric Heat Pump	\$25

2. Attic insulation to R-30
 - a. If R-19 or less existing

3. CFLs If existing lighting is incandescent bulb
 - a. in use for 2 hours per day or more
 - b. Limit of 8 CFLs per client
4. Solar Screens
 - a. Not to exceed \$5.00 per square foot

5. Duct Sealing and Insulation

Primary Heating Type	Maximum Cost of 100 CFM50 Reduction in duct leakage (\$)
Natural Gas and Propane with AC	\$400
Electric Heat Pump	\$340

6. Refrigerator Replacement

Annual kWh/yr. Existing Unit	Annual kWh/yr. of New Refrigerator		
	400 kWh/yr.	500 kWh/yr.	600 kWh/yr.
800	\$525	\$393	\$262
850	\$590	\$459	\$328
900	\$656	\$525	\$393
950	\$722	\$590	\$459
1000	\$787	\$656	\$525
1100	\$919	\$787	\$656
1200+	\$1,050	\$919	\$787

7. Install heat pump water heater
 - a. If there is an existing electric water heater
 - b. Cost not to exceed \$1900
 - c. Existing System $EF \leq 0.90$
 - d. $EF \geq 2.4$
 - e. Dwelling must not contain an electric resistance furnace if water heater is to be put into conditioned space
 - f. 4 or more residents

Arizona Block Housing Priority List – Zone 3 (Safford, Sierra Vista)

1. Air Sealing

Primary Heating Type	Maximum Cost of 100 CFM50 Reduction (\$)
Propane	\$70
Gas	\$45
Electric Heat Pump	\$45

2. Attic insulation to R-30
 - a. If R-19 or less existing

3. CFLs
 - a. If existing lighting is incandescent bulb in use for 2 hours per day or more
 - b. Limit of 8 CFLs per client

4. Duct Sealing and Insulation

Primary Heating Type	Maximum Cost of 100 CFM50 Reduction in duct leakage (\$)
Natural Gas and Propane with AC	\$425
Electric Heat Pump	\$400

5. Install heat pump water heater
 - a. If there is an existing electric water heater
 - b. Cost not to exceed \$1900
 - c. Existing System $EF \leq 0.90$
 - d. $EF \geq 2.4$
 - e. Dwelling must not contain an electric resistance furnace if water heater is to be put into conditioned space
 - f. 4 or more residents

6. Refrigerator Replacement

Annual kWh/yr. Existing Unit	Annual kWh/yr. of New Refrigerator		
	400 kWh/yr.	500 kWh/yr.	600 kWh/yr.
800	\$525	\$393	\$262
850	\$590	\$459	\$328
900	\$656	\$525	\$393
950	\$722	\$590	\$459
1000	\$787	\$656	\$525
1100	\$919	\$787	\$656
1200+	\$1,050	\$919	\$787

7. Install low-e storm windows on East, West and North facing windows.
 - a. If existing windows are single panes, aluminum windows
 - b. Emissivity < 0.22
 - c. Cost of storm windows not to exceed \$15.00/ square foot

Arizona Block Housing Priority List – Zones 4 and 5 (Prescott, Flagstaff)

1. Air Sealing

Primary Heating Type	Maximum Cost of 100 CFM50 Reduction (\$)
Propane	\$125
Gas	\$70
Electric Heat Pump	\$70

2. Attic insulation to R-38
 - a. If R-19 or less existing
3. CFLs
 - a. If existing lighting is incandescent bulb in use for 2 hours per day or more
 - b. Limit of 8 CFLs per client

4. Duct Sealing and Insulation

Primary Heating Type	Maximum Cost of 100 CFM50 Reduction in duct leakage (\$)
Natural Gas and Propane with AC	\$425
Electric Heat Pump	\$425

5. Install heat pump water heater
 - a. If there is an existing electric water heater
 - b. Cost not to exceed \$1900
 - c. Existing System $EF \leq 0.90$
 - d. $EF \geq 2.4$
 - e. Dwelling must not contain an electric resistance furnace if water heater is to be put into conditioned space
 - f. 4 or more residents

6. Refrigerator Replacement

Annual kWh/yr. Existing Unit	Annual kWh/yr. of New Refrigerator		
	400 kWh/yr.	500 kWh/yr.	600 kWh/yr.
800	\$525	\$393	\$262
850	\$590	\$459	\$328
900	\$656	\$525	\$393
950	\$722	\$590	\$459
1000	\$787	\$656	\$525
1100	\$919	\$787	\$656
1200+	\$1,050	\$919	\$787

7. Install low-e storm windows on East, West and North facing windows.
 - a. If existing windows are single pane, aluminum windows
 - b. Emissivity $< +0.22$
 - c. Cost of storm windows not to exceed \$15.00/ square foot

Assumptions for Frame Built Houses:

1500 Square Feet
 No attic insulation
 No wall insulation (uninsulated 2X4 stud wall)
 Windows starting at $U=0.90$ SHGC = 0.65
 Windows are 15% of wall surface area
 Pre and Post blower door = 2000 CFM @ 50 Pa

Arizona Frame Housing Priority List – Zones 2(Yuma, Phoenix)

1. Air Sealing

Primary Heating Type	Maximum Cost of 100 CFM50 Reduction (\$)
Propane	\$45
Gas	\$25
Electric Heat Pump	\$25

2. Attic Insulation to R-30

- a. If R-19 or less in attic

3. CFLs

- a. If existing lighting is incandescent bulb in use for 2 hours per day or more
- b. Limit of 8 CFLs per client

4. Solar Screen

- a. Not to exceed \$5.00 per square foot

5. Dense Pack Side Wall Insulation

- a. Wall insulation not to exceed \$2.50 per square foot

6. Duct Sealing and Insulation

Primary Heating Type	Maximum Cost of 100 CFM50 Reduction in duct leakage (\$)
Natural Gas and Propane with AC	\$380
Electric Heat Pump	\$370

7. Refrigerator Replacement

Annual kWh/yr. Existing Unit	Annual kWh/yr. of New Refrigerator		
	400 kWh/yr.	500 kWh/yr.	600 kWh/yr.
800	\$525	\$393	\$262
850	\$590	\$459	\$328
900	\$656	\$525	\$393
950	\$722	\$590	\$459
1000	\$787	\$656	\$525
1100	\$919	\$787	\$656
1200+	\$1,050	\$919	\$787

8. Install heat pump water heater
 - a. If there is an existing electric water heater
 - b. Cost not to exceed \$1900
 - c. Existing System $EF \leq 0.90$
 - d. $EF \geq 2.4$
 - e. Dwelling must not contain an electric resistance furnace if water heater is to be put into conditioned space
 - f. 4 or more residents

Arizona Frame Housing Priority List – Zones 3 (Safford, Sierra Vista)

1. Air Sealing

Primary Heating Type	Maximum Cost of 100 CFM50 Reduction (\$)
Propane	\$75
Gas	\$45
Electric Heat Pump	\$45

2. Attic Insulation to R-30
 - a. If R-19 or less in attic
3. Dense Pack Side Wall Insulation
 - a. Not to exceed \$2.50 per square foot
4. CFLs
 - a. If existing lighting is incandescent bulb in use for 2 hours per day or more
 - b. Limit of 8 CFLs per client

5. Duct Sealing and Insulation

Primary Heating Type	Maximum Cost of 100 CFM50 Reduction in duct leakage (\$)
Natural Gas and Propane with AC	\$425
Electric Heat Pump	\$375

6. Install heat pump water heater
 - a. If there is an existing electric water heater
 - b. Cost not to exceed \$1900
 - c. Existing System $EF \leq 0.90$
 - d. $EF \geq 2.4$
 - e. Dwelling must not contain an electric resistance furnace if water heater is to be put into conditioned space
 - f. 4 or more residents

7. Refrigerator Replacement

Annual kWh/yr. Existing Unit	Annual kWh/yr. of New Refrigerator		
	400 kWh/yr.	500 kWh/yr.	600 kWh/yr.
800	\$525	\$393	\$262
850	\$590	\$459	\$328
900	\$656	\$525	\$393
950	\$722	\$590	\$459
1000	\$787	\$656	\$525
1100	\$919	\$787	\$656
1200+	\$1,050	\$919	\$787

8. Install low-e storm windows on East, West and North facing windows.
 - a. If existing windows are single pane, aluminum windows.
 - b. Emissivity <+0.22
 - c. Cost of storm windows not to exceed \$15.00/ square foot

Arizona Frame Housing Priority List – Zones 4 and 5 (Prescott, Flagstaff)

1. Air Sealing

Primary Heating Type	Maximum Cost of 100 CFM50 Reduction (\$)
Propane	\$120
Gas	\$70
Electric Heat Pump	\$70

2. Attic Insulation to R-38

- a. If R-19 or less in attic

3. Dense Pack Side Wall Insulation

- a. Not to exceed \$2.50 per square foot

4. CFLs

- a. If existing lighting is incandescent bulb in use for 2 hours per day or more
- b. Limit of 8 CFLs per client

5. Duct Sealing and Insulation

Primary Heating Type	Maximum Cost of 100 CFM50 Reduction in duct leakage (\$)
Natural Gas and Propane with AC	\$425
Electric Heat Pump	\$425

6. Install heat pump water heater

- a. If there is an existing electric water heater
- b. Cost not to exceed \$1900

- c. Existing System $EF \leq 0.90$
- d. $EF \geq 2.4$
- e. Dwelling must not contain an electric resistance furnace if water heater is to be put into conditioned space
- f. 4 or more residents

7. Refrigerator Replacement

Annual kWh/yr. Existing Unit	Annual kWh/yr. of New Refrigerator		
	400 kWh/yr.	500 kWh/yr.	600 kWh/yr.
800	\$525	\$393	\$262
850	\$590	\$459	\$328
900	\$656	\$525	\$393
950	\$722	\$590	\$459
1000	\$787	\$656	\$525
1100	\$919	\$787	\$656
1200+	\$1,050	\$919	\$787

- 8. Install low-e storm windows on East, West and North facing windows.
 - a. If existing windows are single pane, aluminum windows
 - b. Emissivity < 0.22
 - c. Cost of storm windows not to exceed \$15.00/ square foot

Mobile Home Priority Lists

Mobile Home Assumptions:

Gas Price: \$1.19/Therm. (From Southwest Gas Website)

Electricity Price: \$0.11/kWh (EIA)

Propane Price: \$2.60/gal.

Existing Aluminum Window: $U = 1.13$ $SHGC = 0.80$

Replacement Window: $U = 0.30$ $SHGC = 0.30$

Existing Component Insulation:

Ceiling Insulation: 1 inch of fiberglass (assembly $R = 4.6$)

Alternate Ceiling Configuration: Assumes R-19 has been added to roof through rehab

Belly Insulation: Wings: 1 inch rigid board

Center Cavity: 1 inch fiberglass

Walls: 2 inches of fiberglass batt, degraded (assembly $R = 7.4$)

Zone 2 MH (Phoenix, Yuma)

1. Air Sealing

Primary Heating Type	Maximum Cost of 100 CFM50 Reduction (\$)
Natural Gas and Propane with CAC	\$25
Electric Heat Pump	\$25

2. Duct Sealing and Insulation

Primary Heating Type	Maximum Cost of 100 CFM50 Reduction in duct leakage (\$)
Natural Gas and Propane with CAC	\$180
Electric Heat Pump	\$250

3. Mobile Home Roof Insulation

- a. If less than R-19
- b. Cool roof coating or sealant shall only be done in conjunction with roof insulation

4. Mobile Home Belly Insulation

- a. Repair belly pan and install insulation to fill cavities
- b. Not to exceed \$2.25/sf

5. CFLs

- a. If existing lights are incandescent and on 2 hours or more a day
- b. Limit of 8 CFLs per client

6. Solar Screens

- a. Cost not to exceed \$5.00/ square foot

7. Refrigerator Replacement

Annual kWh/yr. Existing Unit	Annual kWh/yr. of New Refrigerator		
	400 kWh/yr.	500 kWh/yr.	600 kWh/yr.
800	\$525	\$393	\$262
850	\$590	\$459	\$328
900	\$656	\$525	\$393
950	\$722	\$590	\$459
1000	\$787	\$656	\$525
1100	\$919	\$787	\$656
1200+	\$1,050	\$919	\$787

8. Install heat pump water heater

- a. If there is an existing electric water heater
- b. Cost not to exceed \$1900
- c. EF >= 2.4
- d. Dwelling must not contain an electric resistance furnace if water heater is to be put into conditioned space
- e. 4 or more residents

Zone 3 MH (Safford, Sierra Vista)

1. Air Sealing

Primary Heating Type	Maximum Cost of 100 CFM50 Reduction (\$)
Gas	\$45
Electric Heat Pump	\$45

2. Duct Sealing and Insulation

Primary Heating Type	Maximum Cost of 100 CFM50 Reduction in duct leakage (\$)
Natural Gas and Propane with CAC	\$230
Electric Heat Pump	\$275

3. Mobile Home Roof Insulation

- a. If less than R-19
- b. Cool roof coating or sealant shall only be done in conjunction with roof insulation

4. Mobile Home Belly Insulation

- a. Repair belly pan and install insulation to fill cavities
- b. Not to exceed \$2.25/sf

5. CFLs

- a. If existing lights are incandescent and on 2 hours or more a day
- b. Limit of 8 CFLs per client

6. Install heat pump water heater

- a. If there is an existing electric water heater
- b. Cost not to exceed \$1900
- c. EF \geq 2.4
- d. Dwelling must not contain an electric resistance furnace if water heater is to be put into conditioned space
- e. 4 or more residents

7. Refrigerator Replacement

Annual kWh/yr. Existing Unit	Annual kWh/yr. of New Refrigerator		
	400 kWh/yr.	500 kWh/yr.	600 kWh/yr.
800	\$525	\$393	\$262
850	\$590	\$459	\$328
900	\$656	\$525	\$393
950	\$722	\$590	\$459
1000	\$787	\$656	\$525
1100	\$919	\$787	\$656
1200+	\$1,050	\$919	\$787

8. Install low-e storm windows on the East, West and North facing windows.
 - a. If existing windows are single pane, aluminum windows
 - b. Emissivity <=0.22
 - c. Cost of storm windows not to exceed \$15.00/ square foot

Zone 4 & 5 MH (Prescott, Flagstaff)

1. Air Sealing

Primary Heating Type	Maximum Cost of 100 CFM50 Reduction (\$)
Natural Gas and Propane with CAC	\$70
Electric Heat Pump	\$70

2. Duct Sealing and Insulation

Primary Heating Type	Maximum Cost of 100 CFM50 Reduction in duct leakage (\$)
Natural Gas and Propane with CAC	\$425
Electric Heat Pump	\$425

3. Mobile Home Roof Insulation
 - a. If less than R-19
 - b. Cool roof coating or sealant shall only be done in conjunction with roof insulation
4. Mobile Home Belly Insulation
 - a. Repair belly pan and install insulation to fill cavities
 - b. Not to exceed \$2.25/sf
5. CFLs
 - a. If existing lights are incandescent and on 2 hours or more a day
 - b. Limit of 8 CFLs per client

6. Install heat pump water heater
 - a. If there is an existing electric water heater
 - b. Cost not to exceed \$1700
 - c. EF \geq 2.4
 - d. Dwelling must not contain an electric resistance furnace if water heater is to be put into conditioned space
 - e. 4 or more residents

7. Refrigerator Replacement

Annual kWh/yr. Existing Unit	Annual kWh/yr. of New Refrigerator		
	400 kWh/yr.	500 kWh/yr.	600 kWh/yr.
800	\$525	\$393	\$262
850	\$590	\$459	\$328
900	\$656	\$525	\$393
950	\$722	\$590	\$459
1000	\$787	\$656	\$525
1100	\$919	\$787	\$656
1200+	\$1,050	\$919	\$787

8. Install low-e storm windows on the East, West and North facing windows.
 - a. If existing windows are single pane, aluminum windows
 - b. Emissivity \leq 0.22
 - c. Cost of storm windows not to exceed \$15.00/ square foot

A site specific computer energy model is required if:

- There are potential cost-effective energy upgrades to the house that are not listed on the priority list
- The home being weatherized does not meet the assumptions square footage + or – 50 percent
- There are not sufficient funds to complete all the measures; including energy related health and safety measures and other energy related repairs
- Energy related incidental repairs of more than \$100 are included with the energy upgrades

Fuel switching as a cost effective measure, see below

It is expected that if a site specific computer energy model is conducted, the measures listed for the respective climate zone and building type are modeled with any additional measures and the savings-to-investment report is created ranking all measures by SIR from greatest return to least.

As the Grantee updates to the newest REM versions, communication will be sent to the agencies to flow down update requirements.

Fuel Switching

Per WAP Memorandum 11: WAP does not permit the general practice of non-renewable fuel switching when replacing furnaces/appliances. However, DOE does allow the changing or converting of a furnace/appliance using one fuel source to another on a limited, case-by-case basis. These approvals will only be granted when all related costs demonstrate the effectiveness of the fuel switch over the life of the measure.

To request consideration of a waiver for approval of fuel switching, the sub grantee must follow the requirements outlined in WAP Memorandum 11 and submit a request that includes a site specific REM

demonstrating cost effectiveness, to the ADOH Energy Specialist PRIOR TO any work being done. The waiver request and REM will be reviewed by the ADOH Energy Specialist and submitted to the DOE Project Officer for approval. Failure to submit a waiver prior to work will result in disallowed cost.

Multifamily Audit procedures

Multifamily: As defined by DOE, multifamily buildings are 5 or more units in a single building.

As multifamily units represent less than 20 percent of the state's dwelling type weatherized, we are not required to and currently do not have a multifamily audit process approved by DOE. The state will treat multifamily units as any other dwelling seeking weatherization. If the units meet both the client eligibility and building eligibility, weatherization is permitted. The sub-grantee must follow all applicable state laws when dealing with rental properties and the requirements put forth on the property owners.

Because the state does not have an approved multifamily audit process, all multifamily projects MUST be submitted to DOE through the Grantee's CD& R Program Administrator and approved prior to any work being started. The following information is required in order for the project to be submitted to Grantee and sent to the DOE Project Officer for approval.

- Site plan of complex
- Pictures of complex
- Results of audit completed on the complex
- ASHRAE 2013 calculations
- Scope of Work
- Budget consisting of:
 - Measure to be performed using DOE funds and cost
 - Measure to be performed using leverage funds and cost

V5.3 Final inspection

A weatherized unit is a dwelling unit on which an approved energy audit or priority list has been applied and weatherization work has been completed. Sub-grantees and their contractors/vendors have an obligation to perform their work to the SWS and the Arizona Weatherization Field Guide. The use of DOE funds on a unit may include, but are not limited to: auditing, testing, measure installation, and inspections. Therefore, a dwelling unit meeting both the definition of a DOE weatherized unit and has DOE funds used directly on it, may be included in the DOE production numbers reported. In order to make sure these requirements are met, two separate inspections must be completed. A final inspection and a Quality Control Inspection must be done to all completed homes in order for them to be considered a completed DOE job and be reimbursed for expenditures.

Note: Weatherization crews, including supervisory persons that also work to install weatherization measures on a unit, should not perform the final inspection of the unit. DOE recommends the final inspection be performed by a person(s) not directly associated with actual work that was performed on the unit. In the event that this provision cannot be met due to staffing levels or budget constraints, Grantee must be notified annually in writing why this provision cannot be met and the sub-grantee will be subjected to a higher percentage of site inspections by grantee.

A final inspection by sub-grantee:

- Shall be performed after all work is completed and final test out has been performed.
- Shall be performed on all jobs before it can be counted as a completed job.
- Must be completed by designated inspector who did not conduct the initial energy audit and was not directly involved with the weatherization measures/work completed on the job. Special consideration will be taken for sub-grantees with limited staff or long distance travel. Sub-

grantees who would like to request a waiver of this requirement must submit a letter in writing to the ADOH Energy Specialist stating the circumstances why this requirement cannot be achieved and how they plan to address conducting the final inspection. This letter must be submitted annually at the time of contract signing. Sub-grantees that request the waiver and are approved, will be subject to a higher field audit percentage by the state.

- Shall verify that all cost effective opportunities were completed.
- Shall verify all invoices for the job are invoiced correctly, nothing is billed incorrectly or billed for services/work not performed.
- Shall verify that the reported house characteristics are correct.
- Shall include a review of the diagnostic result, both pressure and combustion safety, to verify that all applicable tests were completed.
- Shall complete diagnostics on a minimum of ten percent of completed homes to compare with reported results.
- Shall include a review of all measures listed on the Work Performed Report to verify installation has been completed in a safe and effective manner following program requirements.
- Shall also include an analysis of the energy audit to ensure that it was completed properly; all areas of the audit have been addressed; and the scope of work reflects a comprehensive energy audit.

Once a sub-grantee has completed their final inspections, the job must be turned over to a qualified Quality Control Inspector (QCI) for a Quality Control Inspection. A qualified QCI will be someone who has been certified by the Building Performance Institute (BPI) to perform Quality Control Inspections for weatherization. After the QCI has reviewed and passed the job, it may be reported as a completed home to the Grantee and DOE.

A Quality Control Inspection:

- Shall be conducted after all work by the sub-grantee is completed and their final inspection has been completed.
- Shall be performed on all jobs before it can be counted as a completed job
- Shall include an analysis of the energy audit to ensure that it was completed in an efficient manner with all areas of the audit having been addressed and the scope of work reflects a comprehensive energy audit.
- Shall verify reported diagnostic numbers are correct.
- Shall verify that all cost effective measures were completed.
- Shall verify that all invoices for the job are invoiced properly, nothing billed incorrectly, or billed for services/work not performed.
- .
- Shall include a review of the diagnostic results for pressure and combustion safety t to verify that all applicable tests were completed.
- Shall include a review of all measures listed on the Work Performed Report to verify installation has been completed in a safe and effective manner, following program requirements.
- Shall verify the work was performed to the SWS provided by the Department of Energy and the Arizona Weatherization Field Guide.
- Shall fill out and sign the ADOH WAP QCI Checklist, sign it and provide a copy for the file, stating the unit is complete and ready to be reported to ADOH WAP and DOE. The QCI Checklist is available from the ADOH WAP website at: <https://housing.az.gov/documents-links/forms/weatherization>.

There are two types of QCI

1. The independent QCI inspector is an inspector that had no involvement in the job except for the Quality Control Inspections. The individual did not perform the initial audit or any work on the home. In this scenario the Grantee must monitor a minimum of 5%.
2. The Independent Auditor/QCI is a person that performs the initial audit and develops the scope of work but is not involved with any of the work performed on the home. This same person performs the Quality Control Inspection. If this method is chosen by a sub-grantee, they will be subjected to more oversight by the state; the state will monitor 15 percent of the jobs.

Lack of Compliance with QCI

If a sub-grantee is found to be in violation of the requirements of the Quality Control Inspection process, they will be formally notified in writing by the grantee. The write-up will:

1. Indicate where the sub-grantee is failing at following the required process.
2. Indicate where the sub-grantee can find the state level or other guidance needed to help address the concern.
3. Request the sub-grantee create a plan of action in writing on how they will fix the concerns and modify their process going forward and submit within 30 days of receipt of the non-compliance letter.
4. Require that the corrective plan is followed and the process is improved.
5. Require Grantee to:
 - a. Reject jobs and hold funding to sub-grantees if there were jobs that did not receive a Quality Control Inspection by the sub-grantee.
 - b. Place the sub-grantee on a 90-day probation period upon discovery of non-compliance.
 - c. Increase the frequency and percentage of field audits of the sub-grantee until such time that the Grantee feels that the problems/concerns have been addressed to their satisfaction.
 - d. Mandate the sub-grantee create a plan of action to fix concerns.

If Grantee does not receive the plan of action within the required time frame or the deficiency is not corrected, the sub-grantee will no longer be allowed to facilitate the weatherization program for their service area.

However, if the sub-grantee approaches the Grantee for technical assistance, the Grantee will provide assistance to the sub-grantee so they may address the Grantee's concerns. This request for assistance must be made by the sub-grantee in a reasonable time frame during the allowable follow-up period. (Refer to #3, above)

V.6 Weatherization Analysis of Effectiveness

Grantee has a process to track energy savings by using utility usage analysis which compares completed measure cost in a home to annual savings of utility usage. This is done by comparing the energy usage of randomly picked weatherized home utility usage at least 18 months prior and after weatherization work was completed. The before usage and after usage is subtracted to obtain the actual energy saving for the home. The savings is combined with the measure cost completed on the home, first by the total spent on the home and second by just energy related measures including audits. These two calculations allow the Grantee to achieve the two Saving-to-Investment Ratio (SIR) numbers below, one for total SIR including health and safety and the other for just energy related SIR. All funding sources used on the homes are calculated in the SIRs.

SIR calculations below were based on an analysis of 243 homes utilizing APS, TEP, Unisource Gas and Electric and Southwest Gas utility data. This analysis is ongoing, and new data will be updated to these values on a quarterly basis.

Results Summary

The combined SIR of all jobs reviewed to date for funds (LIHEAP, DOE, utility funding) spent on diagnostics, energy measures and health and safety measures is .99 SIR. The combined SIR of all jobs reviewed to date for funds spent on energy measures and diagnostics is 1.26. Please note that sub-

grantees often run parallel programs using other funds such as CDBG to cover those items that cause deferrals.

The average energy savings per home reviewed was 2229 kWh of electricity and 35 therms of natural gas (gas therms average includes all electric homes).

Grantee will continue to track utility histories of completed jobs, the tracking of post-weatherization energy savings will give positive feedback to weatherization staff, highlighting measures or processes that provide high returns. Local operational changes can be based on this information to improve cost-effectiveness.

Grantee has developed a Policy and Procedures Handbook that indicates the Grantee's expectations for the performance of sub-grantees including their progress on completed units and expenditures, ability to follow DOE requirements; Field and Fiscal Monitoring reports; if concerns are found, how quickly they are addressed; and their billing practices. Sub-grantees will This performance review will be adopted and used on an annual basis to determine the sub-grantees effectiveness in WAP.

V.7 Health and Safety

See Health and Safety Plan

V.8 Program Management

V8.1 Overview and Organization

The Arizona DOE Weatherization Program is located within the Arizona Department of Housing (ADOH). In addition to DOE funds for weatherization, ADOH manages Weatherization funds awarded by DES LIHEAP Weatherization Program and Utility funds. Other.

Organization charts showing how the office is structured are attached to the SF-424. The responsibilities of the ADOH staff implementing the WAP program are outlined in the Budget Justification attached to this plan.

Mission

The mission statement of the Weatherization Assistance Program is “To reduce energy costs for low-income families, particularly for the elderly, people with disabilities, families with children, and for families with a high energy burden by improving the energy efficiency of their homes while ensuring their health and safety.”

V8.2 Administrative Expenditure Limit

Arizona will allocate 5% to sub-grantees and retain 5% out of the allowable total of 10% for administration. An additional five percent (5%) of the base allocation will be made available to sub-grantees receiving grants of less than \$350,000 of new DOE money.

V8.3 Monitoring Activities

The state has a responsibility to perform monitoring and oversight of the work performed by the sub-grantee. DOE requires the state to perform a comprehensive monitoring of each sub-grantee annually. DOE requires 5 percent inspection of completed jobs and also recommends performing inspection on in-progress homes. The state will visit a minimum of 5 percent of completed jobs. If the state discovers significant deficiencies (health and safety violations, poor quality installation of materials, major services missed, etc.), the state will elevate both the number of homes reviewed and the frequency of visitation until the deficiencies are resolved.

The Monitors for the state and certificates held will be:

Name	Type of Monitor	Funded by
Michael Frary	Technical	50% Administrative
Trisha Ekenberg	Financial & Program Monitoring/Administrative	50% Administrative
Noel Schaus	Financial & Program Monitoring	5% Administrative
Toni Pattison	Financial & Program Monitoring	5% Administrative
Kathy Blodgett	Administrative (Business Manager)	15% Administrative

We receive funds from DES LIHEAP and 3 of the state utilities to assist with the travel budget and funds for monitoring the 10 weatherization sub-grantees.

In addition, 100% of all jobs will be reviewed by desktop review via the Arizona WAP web-based database.

A. Role

The sub-grantees will be routinely monitored to:

- Determine program compliance and accountability
- Assist agencies in their program operations and compliance with DOE and state regulations
- Analyze program performance
- Analyze quality of work
- Identify problems, deficiencies, and areas that need improvement and advise on how to correct
- Analyze whether best possible program services are being delivered to low-income population
- Assess T&TA needs
- Improve program performance

B. On-Site Monitoring

On-site monitoring of sub-grantees is performed by on-site technical and on-site fiscal monitoring staff to identify methods, deficiencies, and successes in program operations and to assess technical assistance needs to develop appropriate training courses. Inspection of completed dwelling units is done to monitor prioritization of weatherization measures, accuracy of energy audit, job costs, quality of workmanship and material, and that the work completed is reflected in the job files. Inspection of warehouse and review of materials inventory are completed to insure adequate space and security at reasonable costs for the material inventory. Also, material inventory and condition of materials are verified. ADOH reviews sub-grantees entries into the AZWAP database as well as monthly payment requests to determine if the sub-grantee is meeting its goals and expenditures in compliance with expenditure schedules. Program and fiscal monitoring will be used to determine the program and operational effectiveness of sub-grantees. Customer files, and sub-grantee financial systems, records and reports will also be routinely monitored to test the sub-grantee's ability to prudently deliver, support, and manage installations of allowable cost effective and energy efficient measures.

B.1 On-Site Technical

On-site technical monitoring will be done by a state monitor that has received their Quality Control Inspector certification, if the state's monitor has not received this certification, they will not be able to perform on-site technical inspections. The inspection will be of homes that have received a Quality Control Inspection by the sub grantee's Quality Control inspector, have DOE funds expend on them and have been reported into the state's database as completed.

Sub-grantees will be notified of on-site technical monitoring visits at least two weeks prior to the visit. The Grantee responsibilities related to the on-site technical monitoring event include the following:

Grantee will visit weatherization sub-grantees at least once a year for monitoring, according to a written monitoring plan and monitoring schedule included in the State Plan. Client files will be reviewed to include the following:

- Client File Checklist
- Eligibility Determination & Client Information
- Proof of Ownership or Signed Rental Agreement
- Deferral Information (if applicable)
- State Historic Preservation Documentation (if applicable)
- No Previous Weatherization Checklist (See 12.3)
- Client Complaints and Documented Resolution
- Progress Form (See 12.5); Includes client sign-off on:
 - Intake
 - Initial Audit
 - Scope of Work
 - Completion of all Items and Cleanliness of Work Site
 - Receipt of "Client Rights and Responsibilities"
- Work Agreement/Scope of Work
- Assessment/ Audit
- Priority checklist & Copy of REM w/Field Waiver Request (if applicable)
- Work Summary
- Final Test Out Documentation
- Final Inspection Checklist (See optional "Residential Diagnostic Evaluation Form" (See 12.6)
- QCI Checklist
- Hazard Disclosure Form; Includes client sign-off that information, notifications and release were given to them regarding:
 - Lead Paint
 - Mold Assessment and Release
 - Radon
- Lead Safe Weatherization (if applicable)
- Certified Renovator Documentation (if applicable)
- Pre-work and Post-work photos
- Photos of Appliances/HVAC (before and after replacement)
- Materials and Labor Costs: including invoices and purchase orders (Contractor and crew based)
- Bid/Equipment/Calculation/Specification Details
- Inventory Sheets
- Low-Cost/No-Cost Documentation
- Client Health & Safety Evaluation Forms
 - Client Health and Safety Evaluation Form- For Client
 - Client Health and Safety Evaluation Form- For Auditor
- Landlord/Tenant Agreement (if applicable)
- Household Action
- Refusal for Services, Indemnification & Waiver of Claims (if applicable)
- Refrigerator Protocol
- Health & Safety (HSD) Waiver
- Sub-grantee Statement of Completion

- Utility Release Form

Grantee will perform monitoring audits on a minimum of five (5%) percent of weatherization completions. Grantee will inspect in-progress units as needed. The field monitoring will be an analysis of quality of field practices, including:

- Audit procedures and compliance with audit protocols and work orders
- Diagnostics
- Overall effectiveness
- Compliance with state field standards
- Workmanship
- Appearance
- Thoroughness
- Health and safety issues
- Agency final inspection procedures
- Training needs

Grantee staff will randomly select the weatherization completions to be inspected by reviewing jobs submitted in the data base, unless particular jobs are deemed to require review. The sub-grantee will be notified of the homes selected for inspection prior to the visit to allow coordination with the home owners.

- Grantee will use the Arizona Weatherization Field Guide and/ or the Standard Work Specifications to evaluate the weatherization jobs.
- Grantee will recommend re-works, re-inspections, and T&TA visits in response to findings.
- Grantee will investigate legitimate customer complaints, which may result in the sub-grantee being required to return to correct errors or omissions.
- Grantee will note concerns about sub-grantee operations on the inspection report.
- Grantee will disallow costs and/or designate the sub-grantee as high-risk and place the Sub-grantee on a Watch List in response to recurring major findings or persistent noncompliance with Arizona WAP policy.

The monitoring visit will be documented and a Field Monitoring Summary Report will be prepared and provided to the sub-grantee within 10 business days following the completion of the monitoring event. The summary report will serve as the written results of the on-site technical visit. The reports will be based on:

- **Findings**—an issue that may be a violation of rules or standards and needs to be addressed.
- **Concerns**—an issue that may not be in violation of rules or standards but needs to be addressed.
- **Recommendations**—notation based on monitor’s experience and expertise on how to improve certain aspects of the program.

When Deficiencies are identified, sub-grantees will be required to submit a corrective action plan within 30 days of receipt of the Field Monitoring Summary Report. The submission must include a description of the corrective actions taken as well as a timeline for implementation of those actions. The sub-grantees will submit their Corrective Action Plan to the ADOH WAP Energy Specialist who will review and approve the plan or require other actions to be taken.

B.2 On-Site Fiscal

In accordance with the State Plan, on-site fiscal monitoring visits are required to evaluate sub-grantees’ general administration and program management systems at least once a year

Grantee will notify sub-grantees of scheduled on-site fiscal monitoring event at least two weeks prior to the visit. The visit typically requires a minimum of two days to complete and requires frequent interaction with sub-grantee staff.

Key issues identified during the fiscal monitoring:

- Procurement

- Invoicing techniques and fiscal oversight practices
- Accurate job costing
- Proper designation of expenses between Administration and Program Operations
- Property records and inventory control

Following the on-site fiscal monitoring visit, a Summary of Findings Report will be prepared and typically provided to the sub-grantee within 30 days following the completion of the monitoring event.

When Deficiencies are identified, sub-grantees will be required to submit a corrective action plan within 30 days of receipt of the Summary of Findings Report. The submission must include a description of the corrective actions taken as well as a timeline for implementation of those actions. The sub-grantees will submit their Corrective Action Plan to the ADOH WAP Contract Specialist who will review and approve the plan or require other actions to be taken.

C. Desk Top Monitoring

Every month, each agency will be monitored through the AZWAP.org database of all jobs submitted for that month. The AZWAP.org database will be closed to completed jobs on the 20th of each month. The following week after closure of the database a 100% desk top review of completed jobs will occur. The goals of desk top monitoring are:

- Performance analysis of weatherization work in the home;
- Review of weatherization expenditures (costs allocated to appropriate funding source);
- Eligibility and compliance issues; and
- Identify specific focus areas for an agency visit, including problematic jobs.

A monitoring report will be generated from the desk top review which will identify any compliance issues that may occur. Agencies will be sent a desk top monitoring report, if issues exist that need correction, the sub grantee will be given 15 days to comply with the necessary corrections. If the sub-grantee fails to comply in the 15-day time frame, funding may be withheld until compliance occurs. A final desk audit report will be sent to the agency after all issues have been addressed, or if no issues occurred during the desk audit.

D. Tracking

The Grantee may, by giving reasonable written notice specifying the effective date, terminate the sub-grantee contract for funding from this grant in whole or in part for cause, which shall include:

- Failure, for any reason, of the sub-grantee to fulfill in a timely and proper manner its obligation under this grant including compliance with the approved work program and attached conditions, and such statutes, executive orders, and DOE and/or Grantee directives as may become generally applicable at any time;
- Late submission by the sub-grantee to the Grantee of DOE reports that are incorrect or incomplete;
- Ineffective or improper use of funds provided under this grant;
- Suspension or termination by DOE of the grant to the state under which this grant is made, or the portion thereof delegated by this grant. The state may also assign and transfer this grant as required by DOE directives.
- If the sub-grantee is unable or unwilling to comply with the terms of this grant or with additional conditions as may be lawfully applied by DOE to the grant, or the state, the sub-grantee may terminate the grant by giving fifteen (15) days written notice to the state signifying the effective date thereof. Furthermore, the residual assets and property purchased by the sub-grantee under this grant shall be transferred at the discretion of the state to an organization which is exempt from Federal income tax as an organization described in Section 501 (c)(3) of the Internal Revenue Code (1954) or to the appropriate federal, state or local government for exclusively

public purposes. In such event, the state shall require the sub-grantee to ensure that adequate arrangements have been made for the transfer of all property and finished or unfinished documents, data, studies, and reports purchased by the Grantee under this grant. The sub-grantee shall be entitled to compensation for any unreimbursed expenses reasonably and necessarily incurred in satisfactory performance of the grant. Notwithstanding the above, the sub-grantee shall not be relieved of liability to the state for damages sustained by the state by virtue of any reimbursement to the sub-grantee for the purpose of set-off until such time as the exact amount of damages due the state is determined.

- If the sub-grantee is willing to relinquish all or a portion of the counties that they serve, the sub-grantee must give at least ninety (90) days written notice prior to the end of the program year to the state signifying the effective date thereof. In such event, the state will notify the other sub-grantees (CAAs, and other public and nonprofit entities) for the opportunity to manage the Weatherization Assistance Program in the said counties. Interested sub-grantees must submit to the state within thirty (30) days after notice by Grantee, a plan of action and budget to manage the counties up for award. Potential sub-grantees must show experience and performance in weatherization or housing renovation activities, experience in assisting low-income persons in the area to be served, and capacity to undertake a timely and effective weatherization program. Upon selection, the state will hold a public hearing to identify the sub-grantee(s) and amend the State Plan. Failure to relinquish prior to the ninety (90) day deadline will result in the Agency having to maintain the grant for the remainder of current program year and will automatically make them a sub-grantee of the next program year. Relinquishment can only occur between July 1st - February 28th.

E. Analysis

All sub-grantees must develop and maintain fiscal and accounting procedures, which conform to both federal and state policy for grants administration. Sub-grantees must also submit monthly Financial Status Reports. In addition, sub-grantees are governed by 2 CFR 200 for non-profit organizations, which set forth principles for determining allowable costs of programs under grants, contracts, and cooperative agreements with the federal government.

The Grantee has established fiscal controls and fund accounting procedures to assure the proper disbursement of all federal funds received by the state. Additionally, the state has established procedures for monitoring the utilization of such funds by project operators.

The controls and procedures to be implemented are as follows:

The State will follow the established fiscal policies and procedures mandated by state law. To accomplish this, the State will coordinate these policies with various other branches of state government as needed. Financial areas addressed in these procedures consist of fiscal management controls, the accounting system, fund controls, personnel and payroll management, property management, procurement, and the disbursement of funds.

The financial standards set forth by the state establish an adequate accounting system with appropriate internal controls which will safeguard assets, check the accuracy and reliability of accounting data, promote operating efficiency and encourage compliance with prescribed management policies.

V8.4 Training and Technical Assistance

T&TA activities are intended to maintain or increase the efficiency, quality and effectiveness of the Weatherization Program at all levels. Such activities shall be designed to maximize energy savings, minimize production costs, improve program management, crew and contractor quality of work, and reduce the potential for waste, fraud, abuse and mismanagement. The state assesses the training needs of its sub-grantees through monitoring visits and state meetings; planned for one field monitoring per sub-grantee and semiannual meetings, funds permitting on the semiannual meetings.

Methods Used to Provide Training

- Formal classroom
- On-site training
- Hands-on training
- Certification Training

Description of Activities to be undertaken:

All Tier 1 training will be done at an IREC accredited training center. ARIZONA WAP IREC accredited formal training is carried out at the FSL South West Building Science Training Center (SWBSTC), which is operated by FSL Home Improvements, a non-profit organization. The SWBSTC is one of the 15 U.S. Department of Energy “Legacy” weatherization training facilities in the country.

The facility provides classroom and onsite laboratory based trainings with a specific emphasis on Weatherization activities and building knowledge, skills and abilities to perform work in the weatherization program. The SWBSTC is the only training facility in Arizona to provide a Weatherization Boot Camp course. The SWBSTC staff is comprised of industry leaders with decades of technical field experience. They are often recruited to present at regional and national conference training sessions.

The ARIZONA WAP requires that the sub-grantee and its contractors participate in weatherization related trainings that build or enhance their knowledge, skills and abilities to provide weatherization services/energy efficiency retrofits in accordance with the 10 CFR, Part 440 and guidelines set out by the U.S. Department of Energy for the Weatherization Assistance Program.

Current SWBSTC course offerings include:

- WAP Boot camp – This camp combines Energy 101, Pressure Diagnostic 101, General Thermal Performance, Residential Retrofit Application 101, and Combustion Safety course into a weeklong training course that will provide weatherization professionals with an introduction to energy principles, thermal performance, health and safety standards, LSW, auditing, pressure diagnostics, and field repair. This course provides a combination of classroom and hands-on instructions that will prepare candidates to perform the tasks required of weatherization technicians within the current Weatherization Program Guidelines.
- Energy 101
- Pressure Diagnostics 101
- Combustion Safety
- General Thermal Performance
- REM design
- WAP admin
- Lead RRP Certification
- BPI Certification for Building Analyst
- OSHA 10/30 Certifications
- Energy Auditor Certification
- Installer Certification
- Quality Control Inspector certification
- Success with Weatherization

Though SWBSTC offers these courses, training for OSHA, BPI and other necessary WAP training can be provided by any qualifying provider for the required certificates.

For details on SWBCTC and courses visit the SWBSTC website at: www.swbstc.org

Each sub-grantee will be required to maintain training records for its employees and contractors participating in the weatherization program. The training record will list all their training courses they have attended, certifications they possess and date of expiration of those certifications. This information is expected to be updated on an annual basis and provided to Grantee.

Arizona WAP will periodically review training performance of sub-grantees by way of sub-grantee self-assessment surveys, on-site monitoring and communication with SWBSTC on specific training deficiencies and needs.

Required Training

Mobile Homes

If agency sub-grantee works on mobile homes or has contractors that do, at least one person on the job site must hold a Building Performance Institute Certification for Mobile Homes, otherwise no work can be performed on mobile homes.

Crew Leader

- Renovation, Repair and Painting Rule (RRP)
- OSHA 30-hour training
- Building Performance Institute (BPI) Building Analyst Certification
- Success with Weatherization (Critical Details)
- WAP Boot Camp

Auditor and Inspectors

- Renovation, Repair and Painting Rule (RRP)
- OSHA 10-hour training
- Building Performance Institute (BPI) Building Analyst Certification
- Success with Weatherization (Critical Details)
- WAP Boot Camp

Quality Control Inspectors

- Renovation, Repair and Painting Rule (RRP)
- OSHA 30-hour training
- Building Performance Institute (BPI) Building Analyst Certification
- Success with Weatherization (Critical Details)
- WAP Boot Camp
- Quality Control Certification

Required- New Field Employees and/or Contractors

Within 6 months of Employment

- WAP Boot Camp
- Renovation, Repair and Painting Rule (RRP)
- OSHA 10 or 30-hour training (Depending on position held)

Within 1 year of employment

- Combustion Safety
- Success with Weatherization (Critical Details)

Tier 1 Training

Tier 1 training requires all WAP workers, including contractors, to go through a comprehensive training for their specific occupation of work, i.e. Auditor, Crew Chief, and Installer, which follows a curriculum that is

in line with the Job Task Analysis (JTA) for their occupation. This training will be required to be taken at a facility with a DOE approved accredited training program for the JTA being taught.

Tier 1 training will be based on an annual training schedule for each JTA: Auditor, Crew Chief and Installer. Starting in Program Year 2015, the auditors must take the required training first. The training will be broken down by quarters.

Each quarter of the year the Auditor must attend two or three days of classes in line with the Auditor JTA. By the end of the year they will have completed the entire program and will be tested to make sure they have an understanding of the auditor position and its requirements. Upon completion of this class the WAP auditor will receive a state certificate for WAP auditor that will be effective for two years. Every odd program year they will have to go through the training cycle again and become recertified to continue to be a WAP auditor.

The Crew Chief and Installer must complete the same cycle as the auditor in even program years. Grantee will follow BPI's requirement for BPI and QCI certifications. They must gain recertification every three years by attending the required course.

Tier 2 Training

Unlike Tier 1 training Tier 2 training does not require an accredited program. Tier 2 training is made up of field training and classroom training. Tier 2 is not a scheduled training. Rather, the training will be done when concerns arise during a monitoring visit. If there are consistent issues, the sub-grantees must send workers to training that will address the issues.

Arizona WAP provides sub-grantees with T&TA funding to support attendance and participation at weatherization training events such as the DOE National Weatherization Conference and Energy Out West Weatherization Conference, which is also considered Tier 2 training. It is expected that essential program personnel attend these conferences to stay current with new regulations, processes and technologies. Arizona WAP is aware that some sub-grantees might have travel restrictions due to budget constraints. It should be noted that funds to pay for sub-grantee travel are provided as part of the Weatherization grant award and proper usage of these funds will be closely monitored by Arizona WAP.

Attendance at state-sponsored training may be required based on the importance of the topic and information to help correct program deficiencies or to ensure competence in specific areas. In such cases, sub-grantee and delegate attendance will be required as a matter of program compliance.

Contractor Training

Training of contractors is an allowable cost through T&TA funds, though any costs associated with training contractors shall be preceded with a retention agreement in exchange for the training. Reimbursement of labor, mileage, meals and lodging costs for contractors attending trainings is **not allowable**. Sub-grantees shall consider whether the term of the retention agreement aligns with the cost of training provided.

Whenever possible, the term of a retention agreement shall coincide with the one-year contract (between the Agency and the Contractor) or one-year renewal period. Otherwise, the retention agreement shall be for the duration of the contract from the time the training is provided, not to exceed one year. Training, but not certification as a Lead or Asbestos Company or maintenance of any certifications, may be provided to subcontractors meeting retention requirements. Note that the retention agreement requirement does not apply to Grantee or contractor orientation sessions or when grantees provide instruction to contractors on improving technique as needed.

Client Education

Client education activities are encouraged. Sub-grantees have been trained on client education techniques and opportunities. This training is reinforced during field monitoring visits as the monitor is trained to speak with clients about various energy saving (and some non-energy savings) steps they can take such as; changing filters once a month, using compact fluorescent lights, responsible management of their thermostats, water heater temperature usage and settings, combustion appliance safety, moisture control, and lead safety. Sub-grantees are required to distribute the lead booklet, "Renovate Right" (when potential for hazard exists), and mold and moisture awareness, pamphlets "A Brief Guide to Mold, Moisture, and Your Home" to clients prior to weatherization. Client education can occur at different times throughout the process and can include distribution of client educational material at the time of application as well as one-on-one during and post weatherization work by the energy auditor and/or field crew staff. Each agency must determine the best method of ensuring energy education is performed. Sub-grantee must have the client sign the Hazard Disclosure Form (See Chapter 12. Forms) acknowledging receipt of the lead, mold and radon materials. Additionally, sub-grantee should complete the Household Action Plan Form (See Chapter 12. Forms), have the client sign and provide a copy to the client. The Original signed form should be retained in the Client's file. The Household Action Plan Form is available from the ADOH WAP website at: <https://housing.az.gov/general-public/weatherization-assistance-program>.

V.9 Energy crisis & Disaster Plan

The use of weatherization funds to address disaster relief activities are allowed under the following conditions:

1. The dwelling receiving services has an income eligible client/s for weatherization services
2. Dwelling must be in sound and safe condition for the occupant and workers to perform services
3. All work must meet weatherization standards
4. Must have an energy audit performed on the home to develop the scope of work from.
5. All policies for weatherization must be followed, i.e. client priority, income verification, testing procedures, etc.
6. Health and safety hazard eliminations are allowed only if needed to perform weatherization work
7. Usage of personnel to secure weatherization materials, tools, equipment, weatherization vehicles, or protection of weatherization files during the initial phase of the disaster response

Weatherization vehicles and/or equipment may be used for disaster relief purposes other than weatherization services, as long as WAP is reimbursed according to the DOE financial assistance regulation 10 CFR part 600.

Weatherization funds cannot be used for any activities that will not meet WAP policies and regulations, which would include but not limited to:

1. Providing WAP personnel to assist with disaster relief recovery activities using WAP funds other than weatherization services
2. Removal of debris from dwellings that will not receive weatherization work

The average cost of the dwellings still cannot exceed the average cost per dwelling for the current program year. Further guidance is available from WAPTAC.org website: reference: Weatherization Program Notice 12-7. Sub-grantees may also contact the Grantee with questions.