OEP CONTRACT NO. EW-ESA-12-2182-02Y2

WEATHERIZATION LOW-INCOME ASSISTANCE AGREEMENT

BETWEEN

STATE OF ARIZONA
GOVERNOR'S OFFICE OF ENERGY POLICY

and

GILA COUNTY

THIS Weatherization Low-Income Assistance Contractual Agreement ("AGREEMENT") is made, by and between the **State of Arizona, Governor's Office of Energy Policy ("OEP")**, located at 1700 West Washington, Suite 250, Phoenix, Arizona 85007, and **Gila County, Office of Community Services ("Contractor")**, located at 5515 South Apache Avenue, Suite 200, Globe, Arizona 85501.

WHEREAS, A.R.S. § 41-101.01 and Executive Order 2011-02 authorizes OEP to execute and administer contracts.

WHEREAS, A.R.S. §11-201 authorizes the Gila County Government to execute and administer contracts.

WHEREAS, OEP desires to engage the Contractor to render certain services, hereinafter described, in connection with a Weatherization services work program funded by the U.S. Department of Energy ("DOE") Low-Income Weatherization Assistance Program authorized under Title IV of the Energy Conservation and Production Act, as amended, which directs the Department of Energy to administer the Weatherization Assistance Program (42 U.S.C. 6861-6873).

In consideration of the representations and obligations hereunder the OEP and Contractor agree as follows:

I. PURPOSE OF THE AGREEMENT

Contractor shall implement weatherization services under the terms of this AGREEMENT. The purpose of the Weatherization Assistance Program is to install energy efficiency measures in the homes of income eligible persons, especially homes occupied by the elderly, persons with disabilities, and children. Funds are targeted to the most cost-effective efficiency measures, determined from an on-site energy audit of the building.

II. TERM OF CONTRACT

The effective date of this AGREEMENT is July 1, 2012 upon signature by both parties and continue through June 30, 2013, unless terminated, cancelled or extended as otherwise provided herein.

III. CONTRACT TYPE

Cost Reimbursement Sub-Grant.

IV. CONTRACT BUDGET

A. The DOE Budget for this AGREEMENT shall be the remaining unspent DOE funds assigned to this Contractor from Fiscal Year 2012. When the amount of Fiscal Year 2013 funding is determined, a line-item budget will be provided by email to the Contractor and this Budget shall be attached as Exhibit A to the AGREEMENT, and incorporated by reference.

B. Contractor agrees that it will use the funds solely and strictly for the purposes outlined in the Scope of Work.

V. SCOPE OF WORK

A. GENERAL REQUIREMENTS

Contractor shall implement weatherization services under the terms of this AGREEMENT in coordination with other federal, state and local weatherization related services or energy efficiency programs in order to preclude duplication of services generally and to optimize residential energy efficiency efforts within the Contractor's service delivery area.

B. SPECIFIC REQUIREMENTS

The Contractor shall perform the services under this AGREEMENT, in accordance with the then existing edition of the Program Requirements, incorporated herein by reference. The current edition is attached to this AGREEMENT as Exhibit B. Program Requirements may change and the Contractor will be notified by the OEP. Contractor shall perform the services in accordance with the then existing edition of the Program Requirements immediately upon notification by OEP or actual/constructive notice by any other means.

C. METHOD OF PAYMENT

1. Program expenses for this AGREEMENT are allowable beginning the effective date of this AGREEMENT.

2. All reimbursement of travel expenses shall be paid in accordance with the Contractor's travel policies, but shall not exceed the Domestic Per Diem rates allowed under the Federal Travel Management Policy, and the prevailing Federal standard mileage rates.

3. The OEP shall provide to Contractor master templates for the Payment Request Form and the Financial Report Form to use in requesting DOE funds during the term of the AGREEMENT.

4. The Contractor shall submit to the OEP no later than the twelfth (12^{th}) working day of the following month (excluding state observed holidays) a monthly Payment Request Form, a Financial Report Form showing monthly and cumulative expenditures by line item according to Exhibit A, and a list of database client job numbers of completed and submitted jobs entered on the Weatherization Program Database website for the report month. All documents must indicate the contract name and number.

5. Reimbursement

   a. Reimbursement requests shall be submitted to the OEP on a Payment Request Form a minimum of once a month for services performed and work completed

to date. Include reporting month, dollar amount requested, original signature, and date. The *COMPLETED/SUBMITTED JOBS* check-box section of the Payment Request Form must be marked with appropriate choice and if applicable, attach documentation:

- *Completed/Submitted Jobs listing attached* (Attach list)
- *Completed/Submitted Jobs listing sent via email to* ebillings@az.gov (Send list by email to Evelyn Billings)
- *No Completed/Submitted jobs this month* (No list is required)

b. Reimbursement requests will be processed for payment upon determination that all reporting elements have met Weatherization contractual requirements. If reimbursement requests do not meet Weatherization contractual requirements, the OEP will provide a report listing areas out of compliance and remedies needed to bring the request into compliance.

D. REPORTS

1. Weatherization Program Database Website

a) For each dwelling unit completed, the Contractor shall input in the database the client information, house occupant information, and data on House Characteristics, Combustion Safety, Diagnostics and Work Performed to the fullest extent possible.

b) No later than the twelfth (12th) working day of the following month (excluding state observed holidays), each completed dwelling unit submitted for payment in the report month must have the job submitted as final on the website.

2. List of Client Jobs

a) A hard-copy client list, referencing the website client job numbers of completed jobs being requested for payment, must be submitted either by email to ebillings@az.gov or attached as a separate document to the Payment Request Form. As applicable, the appropriate check-box must be marked on the Payment Request Form utilizing the following choices:

- o *Completed/Submitted Job listing attached*
- o *Completed/Submitted Job listing sent via email to* ebillings@az.gov

b) If there are no dwelling units completed and submitted as final on the website for a billing month, the following box on the Payment Request Form should be checked:

- o *No Completed/Submitted jobs this month*

3. Financial Report Form

a) The Financial Report shall show per line item current expenditures of the reporting period, and cumulative expenditures to date.

4. Monthly Detailed Expense Financial Reports

a) Detailed financial expense documentation reports generated by Contractor's accounting system that reflect Contractor's Weatherization budget

expenses must be submitted monthly with a Payment Request for the purpose of fiscal desk-audit monitoring.

5. Report Submittal Requirements

a) The Payment Request Form and Financial Report Form shall be mailed to the OEP no later than the twelfth (12th) working day of the month on or before 5:00 P.M. taking into consideration any State holiday.

b) Payment Request Forms must be submitted even if there was no production or fiscal activity during the report month.

c) Final reports shall be submitted no later than July 26, 2013.

E. **SUBMITTAL ADDRESS**

All Payment Request Forms and Report Forms must be directed to:

Governor's Office of Energy Policy
1700 W. Washington, Suite 250
Phoenix, Arizona 85007

F. **SERVICE TERRITORY**

Gila County, excluding tribal organizations.

G. **UNDUPLICATED UNIT GOAL**

Unduplicated unit goal: Contractor will be notified when Budget amount is determined.

VI. REGULATION REQUIREMENTS

A. As applicable, Contractor must follow conditions set forth by the U. S. Department of Energy, 10 C.F.R. pt. 440, and the OEP, in conjunction with the Arizona Department of Economic Security.

B. The average cost per dwelling unit for labor, materials and program support expenditures shall not exceed $6,769.00 using DOE program funds.

C. All measures must be determined to be eligible as cost-effective as set forth by the Weatherization Assistance Program.

D. Total expenditures on Health and Safety and Durability measures are subject to budget limitations.

VII. PROGRAM FINANCIAL ELIGIBILITY AND CERTIFICATION REQUIREMENTS

A. Eligible Population and Certification of Eligibility

Contractor is responsible to follow the current Arizona Department of Economic Security ("DES") Low-Income Home Energy Assistance Program ("LIHEAP") Policy Manual requirements for income eligibility up to 200% of Federal Poverty Guidelines as it pertains to the Weatherization Program. Copies of the Policy Manual will be provided by DES.

B. Income Eligibility

1. Applicants are eligible whose income is 200% of the Federal Poverty Guidelines income determined in accordance with criteria established by the Office of the Secretary, U.S. Department of Health and Human Services.

2. Households including members who have received cash assistance payments under Temporary Assistance for Needy Families (TANF) or Supplemental Security Income (SSI), are automatically eligible for Weatherization assistance.

C. Priority

Priority shall be given to identifying and providing weatherization assistance to the following households:

1. Elderly persons
2. Persons with disabilities
3. Families with children
4. High residential energy users and households with a high energy burden

VIII. PROHIBITION AGAINST WEATHERIZATION SERVICES

Dwelling Units

1. Dwelling units which are vacant or which are designated for acquisition or clearance by a federal, state, or local program within twelve (12) months from the date of scheduled weatherization shall not be provided Weatherization services under this AGREEMENT.
2. Dwelling units which are known to be for sale as evidenced by "For Sale" signs on the property, realtor listing and offering or classified advertisement, shall not be provided Weatherization services under this AGREEMENT.

IX. PRIOR WRITTEN APPROVAL REQUIREMENTS

Prior Written Approval from the OEP is required on the following:

1. All purchases of program vehicles or equipment over $4,999.
2. All purchase lease or lease-purchase of vehicles or equipment.
3. Weatherization training, program sessions, or workshops not sponsored by the OEP or DOE, and charged to Weatherization.
4. Adjustments to line items in the AGREEMENT budget.
5. Purchase of extended warranties for installed items on client homes.
6. Weatherization of all rental properties of four (4) or more units.
7. Replacement or repair of items in a rental unit that are the responsibility of the landlord under A.R.S. § 33-1324.
8. Specific references to written approval requirements listed in the latest edition of the Program Requirements, attached as Exhibit B.
9. Services for new additions or residences in varying stages of new construction or remodeling, or for garage/carport conversions in progress. Low-Income Weatherization services are for existing residential buildings only.
10. Homes that have been weatherized after September 30, 1994 and reported to the OEP for contract credit.

X. ELIGIBILITY FOR STATE OR LOCAL PUBLIC BENEFITS; DOCUMENTATION AND VIOLATIONS

Contractors providing services as an agent the State, shall ensure compliance with A.R.S. §1-502. A.R.S. §1-502 requires each person applying or receiving a public benefit to provide documented proof which demonstrates a lawful presence in the United States. The State shall reserve the right to conduct unscheduled, periodic process and documentation audits to ensure contractor compliance. All available contract remedies, up to and including termination may be taken for failure to comply with A.R.S. §1-502 in the delivery of services under this AGREEMENT.

XI. HISTORIC PRESERVATION:

Prior to the expenditure of Federal funds to alter any structure or site, the Contractor is required to comply with the requirements of Section 106 of the National Historic Preservation Act (NHPA), consistent with DOE's 2009 letter of delegation of authority regarding the NHPA. Section 106 applies to historic properties that are listed in or eligible for listing in the National Register of Historic Places. In order to fulfill the requirements of Section 106, the OEP and the State Historic Preservation Officer ("SHPO") have developed a Statewide Programmatic Agreement ("PA"). As long as the contractor adheres to a scope of work in conformance with this executed PA, the contractor need not perform any further Section 106 review. The Statewide Programmatic Agreement is available at: http://www.azenergy.gov/HistoricPreservation.aspx. Additional information is also available at the U.S. Department of Energy website: http://www1.eere.energy.gov/wip/historic_preservation.html.

XII. INVENTORY

The Contractor shall maintain a current list of all non-expendable inventory equipment, with an individual cost of $500 and over, which has a useful life of more than a year, and is available for use in Weatherization. This list shall include:

1. Description of inventory item
2. Manufacturer's serial number, model number, national stock number, or other identification number, and agency's unique tag number, if applicable.
3. Acquisition date
4. Locations, use, and condition of inventory
5. Unit acquisition cost and funding source
6. Disposition data - date and method of disposal

Contractor shall update the Program Equipment Inventory list at the end of the program year. Inventory list shall include any inventory acquisition, disposition, and condition changes during the program. Upon request by the OEP, a copy of the Contractor's Program Equipment Inventory list shall be provided.

XIII. PROPERTY

All inventories acquired by funds provided through the OEP AGREEMENT become program property. Title to inventory acquired and defined under the AGREEMENT may vest upon expiration of the contract provided all terms and conditions of the contract have been met. This is pursuant to Office of Management and Budget ("OMB") Circular A-102, and 10 C.F.R. § 600.232(A) (1996).

The Contractor shall indicate Weatherization Program ownership, maintain reasonable control, and be responsible for the proper care and maintenance of all inventories acquired through an AGREEMENT with the OEP. Equipment and vehicles no longer required for program operation shall be reported to the OEP prior to disposition. When the AGREEMENT is terminated, the disposition of all inventory acquired with AGREEMENT funds shall be determined as follows:

A. The OEP may allow continued use of program inventory provided that a new AGREEMENT is executed and the inventory continues to be used as originally intended.

B. The OEP may sell inventory to the Contractor, at fair market value, if the Contractor wishes to utilize the inventory for purposes other than for which it was acquired. Fair market value will be determined by the OEP.

C. The OEP may take possession of the inventory.

XIV. CLIENT FILE REQUIREMENTS

A. Separate File

A separate file shall be maintained for each household receiving Weatherization assistance under the terms of this AGREEMENT. The client file shall be retained by the Contractor for a minimum of five years and be available for inspection by representatives of the OEP with reasonable advance notification.

B. Program Application Form

A copy of the signed application form must be retained in the client file. Applicants qualifying for Weatherization will be notified of program eligibility.

C. Fuel Information Release Form

A fuel information release form signed by the applicant to allow the Contractor or the OEP to obtain a utility history for all metered fuels purchased by the applicant household. Refusal to sign fuel information release does not affect weatherization services available to applicants. If fuel information release is not signed by applicant, do not list utility account number on the Weatherization Program Database Website. Applicants who are on a "master metered" system are not required to sign the fuel information release form.

D. Rental Properties

Rental properties may be weatherized under the terms of this AGREEMENT. **Prior written approval is required by the OEP for all rental properties of four (4) or more units.** Written permission to perform itemized services must be obtained from the owner of the rental unit or the owner's authorized agent. Said written permission is to be retained along with such other agreements between the Contractor and the rental owner/agent, as part of the job record and client job file.

1. The owner of the rental property or the owner's agent shall agree in writing prior to performing the work, with a stipulation that the rental charge of said dwelling will not be increased for a minimum period of one year from the date of completion of Weatherization services as a consequence of the Weatherization investment.
2. The landlord is required to maintain fit premises pursuant to A.R.S. § 33-1324 (A)(4). The Contractor must obtain written permission from the OEP prior to repairing or replacing any items in the rental property the landlord is required to maintain.

SPECIAL TERMS AND CONDITIONS

XV. DUNS/CCR

The Contractor is required to provide a Dun and Bradstreet Data Universal Numbering System (DUNS) number for the fiscal agent; and proof of current registration in the Central Contractor Registration (CCR) database. Additionally, CCR registration must be maintained for the term of the AGREEMENT. The DUNS website is located at http://fedgov.dnb.com/webform. The CCR registration information may be found at https://www.bpn.gov/ccr/default.aspx.

XVI. FFATA REPORTING REQUIREMENTS

In compliance with the Federal Funding Accountability and Transparency Act of 2006 Reporting Requirements, (Pub. L. No. 109-282, as amended by Section 6205 (a) of Pub. L. No. 110-252),

the Contractor is required to provide information, as applicable, in Exhibit C, incorporated by reference and attached. The FFATA legislation requires information on federal awards (federal financial assistance and expenditures) be made available to the public via a single, searchable website, which is www.USASpending.gov

XVII. SINGLE AUDIT:

In compliance with the Single Audit Act of 1984 (Pub L. No. 98-502, as amended by Pub. L. No. 104-156, which is codified at 31 U.S.C. 7501-7507), grant sub-recipients organizations expending $500,000 or more of Federal funds from all sources during the organization's fiscal year, must have an annual audit conducted in accordance with OMB Circular A-133.

If your organization is subject to the annual audit requirements, then submit two copies of your organization's most recently completed audit in accordance with OMB Circular A-133 and the Management Letter, Findings and Questioned Costs to the OEP.

If your organization is not subject to OMB Circular A-133, submit two copies of the most recently completed audit of financial statements, with the Management Letter, Findings and Questioned Costs to the OEP.

If your organization does not have a recently completed audit, submit the most recently prepared financial statements including a Balance Sheet, Income Statement, and Statement of Cash Flows along with a description of the source of the documents to the OEP.

XVIII. MONITORING REQUIREMENTS:

Contractor acknowledges that requirements may change as governmental regulations change and assures that it will comply with applicable reporting and operational requirements related to the programmatic and financial performance of this grant.

XIX. AUDIT TRAILS:

Contractor shall maintain proper audit trails for all reports related to this AGREEMENT. The OEP reserves the right to review all program records, including fiscal and programmatic records.

XX. FUND MANAGEMENT:

The Contractor must maintain funds received under this AGREEMENT in separate ledger accounts and cannot mix these funds with other sources. Contractor must manage funds according to applicable federal regulations for administrative requirements, cost principles and audits.

The Contractor must maintain adequate business systems to comply with Federal requirements. The business systems that must be maintained are:

Financial Management
Procurement
Personnel
Property
Travel

A system is adequate if it is: 1) ***written***; 2) ***consistently followed*** – it applies in all similar circumstances; and 3) ***consistently applied*** – it applies to all sources of funds. The OEP reserves the right to review all business systems policies.

XXI. FISCAL RESPONSIBILITY

It is understood and agreed that the total amount of the funds used under this AGREEMENT shall be used for the project(s) outlined in this AGREEMENT. Therefore, should the project not be completed, be partially completed, or be completed at a lower cost than the original budget called for, the amount reimbursed to the Contractor shall be for only the amount of dollars actually spent by the Contractor. For any funds received under this AGREEMENT for which the expenditure is disallowed by an audit exception by the OEP, the State or Federal government, the Contractor shall reimburse said funds directly to the OEP immediately, but not later than fifteen (15) business days, exclusive of state holidays.

XXII. INDEMNIFICATION:

Each party (as "Indemnitor") agrees to indemnify, defend, and hold harmless the other party (as "Indemnitee") from and against any and all claims, losses, liability, costs, or expenses (including reasonable attorney's fees) (hereinafter collectively referred to as "Claims") arising out of bodily injury of any person (including death) or property damage, but only to the extent that such Claims which result in vicarious/derivative liability to the Indemnitee are caused by the act, omission, negligence, misconduct, or other fault of the Indemnitor, its officers, officials, agents, employees, or volunteers.

In addition, the Contractor shall cause its contractor(s) and subcontractors, if any, to indemnify, defend, save and hold harmless the State of Arizona, any jurisdiction or agency issuing any permits for any work arising out of this AGREEMENT, and their respective directors, officers, officials, agents, and employees (hereinafter referred to as "Indemnitee") from and against any and all claims, actions, liabilities, damages, losses, or expenses (including court costs, attorneys' fees, and costs of claim processing, investigation and litigation) (hereinafter referred to as "Claims") for bodily injury or personal injury (including death), or loss or damage to tangible or intangible property caused, or alleged to be caused, in whole or in part, by the negligent or willful acts or omissions of the other governmental entity's contractor or any of the directors, officers, agents, or employees or subcontractors of such contractor. This indemnity includes any claim or amount arising out of or recovered under the Workers' Compensation Law or arising out of the failure of such contractor to conform to any federal, state or local law, statute, ordinance, rule, regulation or court decree. It is the specific intention of the parties that the Indemnitee shall, in all instances, except for Claims arising solely from the negligent or willful acts or omissions of the Indemnitee, be indemnified by such contractor from and against any and all claims. It is agreed that such contractor will be responsible for primary loss investigation, defense and judgment costs where this indemnification is applicable.

XXIII. INSURANCE REQUIREMENTS

The Contractor and subcontractors shall procure and maintain until all of their obligations have been discharged, including any warranty periods under this AGREEMENT, are satisfied, insurance against claims for injury to persons or damage to property which may arise from or in connection with the performance of the work hereunder by the Contractor, his agents, representatives, employees or subcontractors.

The insurance requirements herein are minimum requirements for this AGREEMENT and in no way limit the indemnity covenants contained in this AGREEMENT. The State of Arizona in no way warrants that the minimum limits contained herein are sufficient to protect the Contractor from liabilities that might arise out of the performance of the work under this AGREEMENT by the Contractor, its agents, representatives, employees or subcontractors, and Contractor is free to purchase additional insurance.

A. MINIMUM SCOPE AND LIMITS OF INSURANCE

Contractor shall provide coverage with limits of liability not less than those stated below. Within ten (10) business days following notification of award, certificates of insurance must be submitted to the OEP, clearly stating the applicable contract number, effective date(s) of coverage, and limits of liability required pursuant to the AGREEMENT.

1. Commercial General Liability – Occurrence Form

Policy shall include bodily injury, property damage, personal injury and broad form contractual liability coverage.

• General Aggregate	$2,000,000
• Products – Completed Operations Aggregate	$1,000,000
• Personal and Advertising Injury	$1,000,000
• Blanket Contractual Liability – Written and Oral	$1,000,000
• Fire Legal Liability	$ 50,000
• Each Occurrence	$1,000,000

a. The policy shall be endorsed to include the following additional insured language: ***"The State of Arizona, its departments, agencies, boards, commissions, universities and its officers, officials, agents, and employees shall be named as additional insureds with respect to liability arising out of the activities performed by or on behalf of the Contractor".***

b. Policy shall contain a waiver of subrogation against the State of Arizona, its departments, agencies, boards, commissions, universities and its officers, officials, agents, and employees for losses arising from work performed by or on behalf of the Contractor.

2. Business Automobile Liability

Bodily Injury and Property Damage for any owned, hired, and/or non-owned vehicles used in the performance of this AGREEMENT.

Combined Single Limit (CSL)	$1,000,000

a. The policy shall be endorsed to include the following additional insured language: ***"The State of Arizona, its departments, agencies, boards, commissions, universities and its officers, officials, agents, and employees shall be named as additional insureds with respect to liability arising out of the activities performed by or on behalf of the Contractor, involving automobiles owned, leased, hired or borrowed by the Contractor".***

b. Policy shall contain a waiver of subrogation against the State of Arizona, its departments, agencies, boards, commissions, universities and its officers, officials, agents, and employees for losses arising from work performed by or on behalf of the Contractor.

3. Worker's Compensation and Employers' Liability

Worker's Compensation	Statutory

Employer's Liability	
Each Accident	$ 500,000
Disease – Each Employee	$ 500,000
Disease – Policy Limit	$1,000,000

a. Policy shall contain a waiver of subrogation against the State of Arizona, its departments, agencies, boards, commissions, universities and its officers, officials, agents, and employees for losses arising from work performed by or on behalf of the Contractor.
b. This requirement shall not apply to: Separately, EACH CONTRACTOR or subcontractor exempt under A.R.S. §23-901, AND when such CONTRACTOR or subcontractor executes the appropriate waiver (Sole Proprietor/Independent Contractor) form.

4. Professional Liability (Errors and Omissions Liability)

Each Claim	$1,000,000
Annual Aggregate	$2,000,000

a. In the event that the professional liability insurance required by this AGREEMENT is written on a claims-made basis, Contractor warrants that any retroactive date under the policy shall precede the effective date of this AGREEMENT; and that either continuous coverage will be maintained or an extended discovery period will be exercised for a period of two (2) years beginning at the time work under this AGREEMENT is completed.
b. The policy shall cover professional misconduct or lack of ordinary skill for those positions defined in the Scope of Work of this AGREEMENT.

B. ADDITIONAL INSURANCE REQUIREMENTS

The policies shall include, or be endorsed to include, the following provisions:

1. The State of Arizona, its departments, agencies, boards, commissions, universities and its officers, officials, agents, and employees wherever additional insured status is required. Such additional insured shall be covered to the full limits of liability purchased by the Contractor, even if those limits of liability are in excess of those required by this AGREEMENT.
2. The Contractor's insurance coverage shall be primary insurance with respect to all other available sources.
3. Coverage provided by the Contractor shall not be limited to the liability assumed under the indemnification provisions of this AGREEMENT.

C. NOTICE OF CANCELLATION

With the exception of ten (10) day notice of cancellation for non-payment of premium, any changes material to compliance with this AGREEMENT in the insurance policies above shall require thirty (30) days written notice to the State of Arizona. Each insurance policy required by the insurance provisions of this AGREEMENT shall provide the required coverage and shall not be suspended, voided, canceled, or reduced in coverage or in limits. Such notice shall be sent directly to The Governor's Office of Energy Policy, Evelyn Billings, Grants Administrator, 1700

West Washington, Suite 250, Phoenix, AZ 85007 and shall be sent by certified mail, return receipt requested.

D. ACCEPTABILITY OF INSURERS

Insurance is to be placed with duly licensed or approved non-admitted insurers in the state of Arizona with an "A.M. Best" rating of not less than A- VII. The State of Arizona in no way warrants that the above-required minimum insurer rating is sufficient to protect the Contractor from potential insurer insolvency.

E. VERIFICATION OF COVERAGE

Contractor shall furnish the State of Arizona with certificates of insurance (ACORD form or equivalent approved by the State of Arizona) as required by this AGREEMENT. The certificates for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf.

All certificates and endorsements are to be received and approved by the State of Arizona before work commences. Each insurance policy required by this AGREEMENT must be in effect at or prior to commencement of work under this AGREEMENT and remain in effect for the duration of the project. Failure to maintain the insurance policies as required by this AGREEMENT, or to provide evidence of renewal, is a material breach of contract.

All certificates required by this AGREEMENT shall be sent directly to Evelyn Billings, Grants Administrator, the Governor's Office of Energy Policy, 1700 W. Washington, Suite 250, Phoenix, AZ 85007. The State of Arizona project/contract number and project description shall be noted on the certificate of insurance. The State of Arizona reserves the right to require complete, certified copies of all insurance policies required by this AGREEMENT at any time. DO NOT SEND CERTIFICATES OF INSURANCE TO THE STATE OF ARIZONA'S RISK MANAGEMENT DIVISION.

F. SUBCONTRACTORS

Contractor's certificate(s) shall include all subcontractors as insureds under its policies or Contractor shall furnish to the State of Arizona separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to the minimum requirements identified above.

G. APPROVAL

Any modification or variation from the insurance requirements in this AGREEMENT shall be made by the Department of Administration, Risk Management Division, whose decision shall be final. Such action will not require a formal AGREEMENT amendment, but may be made by administrative action.

H. EXCEPTIONS

In the event the Contractor or subcontractor(s) is/are a public entity, then the Insurance Requirements shall not apply. Such public entity shall provide a Certificate of Self-Insurance. If

the Contractor or subcontractor(s) is/are a State of Arizona agency, board, commission, or university, none of the above shall apply.

XXIV. POLLUTION OCCURRENCE INSURANCE

If working with pollutants or any remediation exposures are part of the project then Pollution Occurrence Insurance ("POI") shall be added as a part of, or an addendum to, general liability insurance by Contractor and all subcontractors. If Contractor or subcontractors do NOT obtain POI coverage and damage occurs because of not following all aspects of Lead Safe Weatherization, or there is disturbance to any other environmental pollutants, the cost to do remediation, clean up, relocation, medical expenses or any other resulting costs may not be charged to DOE Weatherization and must be covered by another funding mechanism.

XXV. AMENDMENTS OR MODIFICATIONS

A. This AGREEMENT may be modified only through a written Amendment within the scope of the AGREEMENT, except as provided in (B) and (C) of this section. Changes to the AGREEMENT, including the addition of work or materials, the revision of payment terms, or the substitution of work or materials, directed by a person who is not specifically authorized by OEP in writing or made unilaterally by the Contractor are violations of the AGREEMENT and of applicable law. Such changes, including unauthorized written Amendments shall be void and without effect, and the Contractor shall not be entitled to any claim under this AGREEMENT based on those changes.

B. Either party shall give written notice to the other party of the following alterations that do not require a written amendment:

1. Change of Address
2. Change of telephone number
3. Change in authorized signatory
4. Change in the name and/or related contact information of the person to whom notices are to be sent.

C. The following changes may be made within the six categories listed in Exhibit A - Budget:

1. Without limit, Administration Costs, Training and Technical Assistance, Financial Audit, Health and Safety, and Liability Insurance funds may be moved to Program Operations as long the Budget Total is not exceeded;
2. Up to 5% of Program Operations funds may be moved to either Financial Audit and/or Liability Insurance to cover the actual costs for a financial audit and/or liability insurance. Any of the aforementioned changes shall be made in consultation with and approved in writing by the Energy Office Weatherization Program Manager. These changes shall not require a formal contract amendment.

XXVI. SUBCONTRACTORS

The Contractor understands and agrees that no subcontract that the Contractor enters into shall in any way relieve the Contractor of any responsibility for performance of duties. Notwithstanding anything to the contrary contained in this AGREEMENT, the Contractor is not an employee or agent of the OEP. In the event the Contractor elects to retain a subcontractor, the Contractor

hereby agrees to hold harmless, indemnify and defend the OEP, the State of Arizona, their officers, agents, employees, successors and assigns for any payment, loss, claim or liability including but not limited to, attorney fees associated with any subcontract entered into by the Contractor.

XXVII. LOBBYING

The Contractor shall not pay for, influence, or seek to influence any officer or employee of the State of Arizona or the federal government if that action may have an impact, of any nature, on this AGREEMENT.

XXVIII. APPLICABLE LAW

All parties to this AGREEMENT shall comply with all applicable federal, state and local laws.

XXIX. LICENSES

Contractor shall maintain in current status all federal, state and local licenses and permits required for the operation of the business conducted by the Contractor.

XXX. NON-AVAILABILITY OF FUNDS

In accordance with A.R.S. §35-154, every payment obligation of the State under the AGREEMENT is conditioned upon the availability of funds appropriated or allocated for payment of such obligation. If funds are not allocated and available for the continuance of this AGREEMENT, this AGREEMENT may be terminated by the State at the end of the period for which funds are available. No liability shall accrue to the State in the event this provision is exercised, and the State shall not be obligated or liable for any future payments or for any damages as a result of termination under this paragraph, including purchases and/or contracts entered into by the Contractor in support of this AGREEMENT.

Funds are not presently available for performance under this AGREEMENT beyond the current fiscal year. No legal liability on the part of the OEP for any payment may arise for performance under this AGREEMENT beyond the current fiscal year until funds are made available for performance of this AGREEMENT.

XXXI. ARBITRATION

In accordance with A.R.S. §12-1518, the parties agree to resolve all disputes arising out of or relating to this AGREEMENT through arbitration, after exhausting applicable administrative review except as may be required by other applicable statutes.

XXXII. INVALIDITY OF PART OF THIS AGREEMENT

The parties agree that should any part of this AGREEMENT be held to be invalid or void, the remainder of the AGREEMENT shall remain in full force and effect and shall be binding upon the parties.

XXXIII. CANCELLATION FOR CONFLICT OF INTEREST

Pursuant to A.R.S. § 38-511, the state, its political subdivisions or any department or agency of either may, within three years after its execution, cancel any AGREEMENT, without penalty or further obligation, made by the state, its political subdivisions, or any of the departments or agencies of either if any person significantly involved in initiating, negotiating, securing, drafting or creating the AGREEMENT on behalf of the state, its political subdivisions or any of the departments or agencies of either is, at any time while the AGREEMENT or any extension of the AGREEMENT is in effect, an employee or agent of any other party to the AGREEMENT in any

capacity or a consultant to any other party of the AGREEMENT with respect to the subject matter of the AGREEMENT. A cancellation made pursuant to this provision shall be effective when the Contractor receives written notice of cancellation unless the notice specifies a later time.

XXXIV. AUDIT OF RECORDS

Pursuant to A.R.S. §§ 35-214 and 35-215, the Contractor shall retain and shall contractually require each subcontractor to retain all data, books, and other records ("records") relating to this AGREEMENT for a period of five years after completion of the AGREEMENT. All records shall be subject to inspection and audit by the State at reasonable times. Upon request, the Contractor shall produce the original of any or all such records. The Contractor shall require all subcontractors to abide by this provision during the term of the AGREEMENT.

XXXV. SUSPENSION OR DEBARMENT CERTIFICATION:

By signing the AGREEMENT, the Contractor certifies that the firm, business or person acting as a subcontractor has not been debarred, suspended or otherwise lawfully been precluded from participating in any public procurement activity with any federal, state or local government. Signing the AGREEMENT without disclosing all pertinent information about a debarment or suspension shall result in rejection of the AGREEMENT or cancellation of the AGREEMENT. The OEP may exercise any other remedy available by law.

XXXVI. TERMINATION:

The OEP reserves the right to terminate the AGREEMENT at any time, in whole or in part at any time when in the best interest of the State, without penalty or recourse. Upon receipt of the written notice, the Contractor shall stop all work, as directed in the notice, notify all subcontractors of the effective date of the termination and minimize all further costs to the State. In the event of termination pursuant to this paragraph, all documents, data, and reports prepared by the Contractor under the AGREEMENT shall become the property of and be delivered to the State upon demand. The Contractor shall be entitled to receive just and equitable compensation for work in progress, work completed and materials accepted before the effective date of termination. The cost principles and procedures provided in A.A.C. R2-7-701 shall apply.

XXXVII. NON-DISCRIMINATION

The Contractor shall comply with State Executive Order No. 2009-09 and all other applicable Federal and State laws, rules and regulations, including the Americans with Disabilities Act. The Contractor shall require all subcontractors to abide by this provision during the term of the AGREEMENT.

XXXVIII. THIRD PARTY ANTITRUST VIOLATIONS

The Contractor assigns to the OEP any claim for overcharges resulting from antitrust violations to the extent that such violations concern materials or services supplied by third parties to the Contractor toward fulfillment of this AGREEMENT.

XXXIX. PROGRAM REVIEW AND SITE VISITS

The OEP has the right to make site visits at reasonable intervals for purposes of review of project accomplishments and management control systems and to provide technical assistance, if required. Contractor will provide reasonable access to facilities, office space, resources, and assistance for the safety and convenience to the OEP representatives in the performance of their duties. All site visits and evaluations must be performed in a manner that does not unduly interfere with or delay the work.

XL. RIGHTS IN DATA

The OEP may duplicate, use, and disclose in any manner and for any purpose whatsoever, within the limits established by Federal and State laws and regulations, all information relating to this AGREEMENT.

XLI. HEALTH & SAFETY

The nature of the work to be performed under this AGREEMENT is inherently hazardous. In performance of work under this AGREEMENT, the Contractor shall satisfy all federal, state, and local statutes, regulations, ordinances, etc., regarding health and safety.

XLII. OCCUPATIONAL SAFETY AND HEALTH ACT ("OSHA") GUIDELINES

The Contractor or Subcontractor conducting activities to fulfill the requirements of the Weatherization Low-Income Assistance project must be in compliance with the requirements and shall operate with the guidelines set forth by OSHA (Pub. L. No. 91-596, which is codified at 29 U.S.C. 651-678).

XLIII. ENTIRE AGREEMENT

This AGREEMENT, including exhibits, attachments, and modifications approved in accordance herewith, shall constitute the entire AGREEMENT between the parties and supersede all understandings, oral or written.

XLIV. OFFSHORE PERFORMANCE OF WORK PROHIBITED

Any services that are described in the specifications or scope of work that directly serve the State of Arizona or its clients and involve access to secure or sensitive data or personal client data shall be performed within the defined territories of the United States. Unless specifically stated otherwise in the specifications, this paragraph does not apply to indirect or "overhead" services, redundant back-up services or services that are incidental to the performance of the AGREEMENT. This provision applies to work performed by subcontractors at all tiers. The Contractor shall require all subcontractors to abide by this provision during the term of the AGREEMENT. Contractor shall declare all anticipated offshore services to the OEP.

XLV. FEDERAL IMMIGRATION AND NATIONALITY ACT

The Contractor shall comply with all federal, state and local immigration laws and regulations relating to the immigration status of their employees during the term of the AGREEMENT. The State shall retain the right to perform random audits of the Contractor and subcontractor records or to inspect papers of any employee thereof to ensure compliance. Should the State determine that the Contractor and/or any subcontractors be found noncompliant, the State may pursue all remedies allowed by law, including, but not limited to: suspension of work, termination of the AGREEMENT for default and suspension and/or debarment of the Contractor. The Contractor shall require all subcontractors to abide by this provision during the term of the AGREEMENT.

XLVI. E-VERIFY REQUIREMENT

The contractor warrants compliance with all Federal immigration laws and regulations relating to employees and warrants its compliance with Section A.R.S. § 23-214, Subsection A. (That subsection reads: "After December 31, 2007, every employer, after hiring an employee, shall verify the employment eligibility of the employee through the E-Verify program.) A breach of a warranty regarding compliance with immigration laws and regulations shall be deemed a material breach of the AGREEMENT and the contractor may be subject to penalties up to and including termination of the AGREEMENT. Failure to comply with a State audit process to randomly verify the employment records of contractors and subcontractors shall be deemed a material breach of

the AGREEMENT and the contractor may be subject to penalties up to and including termination of the AGREEMENT. OEP retains the legal right to inspect the papers of any employee who works on the AGREEMENT to ensure that the contractor or subcontractor is complying with the warranty. The Contractor shall require all subcontractors to abide by this provision during the term of the AGREEMENT.

Questions about E-Verify see website below:
http://www.uscis.gov/portal/site/uscis/menuitem.eb1d4c2a3e5b9ac89243c6a7543f6d1a/?vgnextoid=6a0988e60a405110VgnVCM1000004718190aRCRD&vgnextchannel=6a0988e60a405110VgnVCM1000004718190aRCRD

XLVII. SCRUTINIZED BUSINESSES

In accordance with A.R.S. §35-391 and A.R.S. §35-393, Contractor certifies that the Contractor does not have scrutinized business operations in Sudan or Iran. The Contractor shall require all subcontractors to abide by this provision during the term of the AGREEMENT.

XLVIII. ATTORNEY FEES

In any litigation arising out of this Agreement, each party shall bear all of its own attorneys' fees in the case.

XLIX. NOTICES

All notices, demands, and communications provided for herein or made hereunder shall be delivered, or sent by certified mail, return receipt requested, addressed in each case as follows, until some other address shall have been designated in a written notice to the other party hereto given in like manner:

If to CONTRACTOR:
Gila County
Office of Community Services
5515 South Apache Avenue, Suite 200
Globe, AZ 85501

Contractual/Financial Contact
Malissa Buzan
Housing Services Manager
PHONE 928-402-8693
FAX 928-425-9468
EMAIL mbuzan@co.gila.az.us

Program/Technical Contact
Malissa Buzan
Housing Services Manager
PHONE 928-402-8693
FAX 928-425-9468
EMAIL mbuzan@co.gila.az.us

If to the OEP:
The Governor's Office of Energy Policy
1700 W. Washington, Suite 250
Phoenix, AZ 85007

Contractual/Financial Contact
Evelyn Billings
Grants Administrator
PHONE 602-771-1141
FAX 602-771-1203
EMAIL ebillings@az.gov

Program/Technical Contact
OEP Assigned Auditor

Each notice shall be deemed to have been given or made when so delivered or mailed. Notification of change shall be delivered to the OEP and Contractor within ten (10) days of any change affecting this provision.

IN WITNESS WHEREFORE, the parties hereto have executed this AGREEMENT.

STATE OF ARIZONA
GOVERNOR'S OFFICE OF ENERGY POLICY

By _____ Date: 7/2/12
Leisa B. Brug
Director
Or Authorized Signatory

_____ Date: 7/2/12
Travis Price
Compliance, Finance & Procurement Manager
Office of the Governor

GILA COUNTY

_____ Date: _____
Board of Supervisors
Chairman

Tommie C. Martin
Printed name

Chief Deputy County Attorney

_____
Signature Date

Bryan B. Chambers
Printed name

EXHIBIT B

WEATHERIZATION

PROGRAM REQUIREMENTS

JULY 1, 2012
EDITION

Index

INSTALLATION MEASURES 1
ENERGY AUDIT PROCEDURE 1
COST EFFECTIVENESS PROCEDURE 1
CLIMATE ZONES 2
FUEL SWITCHING 2
DOE Approved Priority Lists 2
Assumptions for Block Houses: 3
Arizona Block Housing Priority List – Zones 2 (Yuma, Phoenix) 3
Arizona Block Housing Priority List – Zone 3 (Safford, Sierra Vista) 4
Arizona Block Housing Priority List – Zones 4 and 5 (Prescott, Flagstaff) 5
Assumptions for Frame Built Houses: 7
Arizona Frame Housing Priority List – Zones 2(Yuma, Phoenix) 7
Arizona Frame Housing Priority List – Zones 3 (Safford, Sierra Vista) 8
Arizona Frame Housing Priority List – Zones 4 and 5 (Prescott, Flagstaff) 10
Mobile Home Assumptions: 12
Zone 2 MH (Phoenix, Yuma) 12
Zone 3 MH (Safford, Sierra Vista) 13
Zone 4 & 5 MH (Prescott, Flagstaff) 15
GENERAL WASTE HEAT ITEMS 16
COMBUSTION SAFETY AND CARBON MONOXIDE PROCEDURES 18
HVAC EQUIPMENT AND DISTRIBUTION INSTALLATION/REPAIR POLICY 19
INSULATION STANDARDS 21
RENEWABLES 22
FINAL INSPECTION REQUIREMENTS 22
HEALTH AND SAFETY PLAN 23
Deferrals 34
REFRIGERATOR REPLACEMENT POLICY 35

INSTALLATION MEASURES

All materials/measures installed shall be justified utilizing the Energy Audit Procedures established by the Governor's Office of Energy Policy(OEP).

ENERGY AUDIT PROCEDURE

The Weatherization Assistance Program (WAP) Energy Audit Procedure is to be used by all sub-grantees to gather record and analyze data on structures. This data is to 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 is to be completed that records all of the relevant data on the structure that is needed to perform cost effectiveness tests.

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 structures 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.

COST EFFECTIVENESS PROCEDURE

WAP has incorporated a performance-based energy audit procedure that focuses on optimizing investment in energy efficiency through a systems approach. To enable the WAP program to optimize the investment in energy efficiency, the following requirements have been established for the audit procedure:

The energy audit procedure must determine that each weatherization material/measure is cost effective by ensuring the savings-to-investment ratio (SIR) is greater or equal to one.

The energy audit procedure must assign priorities among weatherization materials/measures in descending order of SIR and must account for interactions between architectural and mechanical measures.

Subgrantees have the option to utilize the DOE approved priority list for their climate zone and building type or utilize a site specific REM Design to create a new list of measure that will replace the DOE approved priority list. If a REM design is conducted, it is expected that all measures listed on the DOE approved priority list will be meet in addition to any other measures for which the REM Design is being conducted for.

The energy audit procedure must ensure that the overall SIR for the entire package of materials/measures, including the cost of incidental repairs, is greater or equal to one. Incidental repairs are only allowed if they are necessary to make the installation of weatherization materials effective.

Funds spent to abate energy related health and safety hazards do not need to be included in the preceding requirements. Funds can be spent to eliminate health and safety hazards when the elimination of the hazard is necessary before or because of the installation of weatherization materials.

Written authorization must be received from the OEP before the installation of measures/materials that do not meet the Cost Effectiveness or Health and Safety Requirements established by the WAP program.

To determine the cost effectiveness of weatherization materials/measures, the contractor must use a computer audit approved by the OEP or an appropriate priority list for homes that meet the criteria contained in the list.

CLIMATE ZONES

Arizona Climate Zones used for the Cost Effective Priority Lists are the International Energy Conservation Code (IECC) 2009and can be found at http://energycode.pnl.gov/EnergyCodeReqs/?state=Arizona

FUEL SWITCHING

The Weatherization Assistance Program does not permit the general practice of fuel switching when replacing heating, cooling or water heating equipment. The changing or converting equipment using one fuel source to another will be considered on a limited case-by-case basis only.

Written authorization must be received from the OEP prior to changing or converting equipment using one fuel source to another.

DOE Approved Priority Lists

Current Priority list was approved by DOE in September 2011

A computer audit is required if:
There are potential cost-effective energy upgrades to the house that are not listed on the priority list
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.
It is expected that if a site specific computer audit is conducted, that the measures listed for the respected climate zone and building type are modeled with any additional measure and that the savings to investment report is run ranking all measures by SIR from greatest return to lowest.

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
    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 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 heat
    b. Cost not to exceed $1900
    c. Existing System EF<=0.90
    d. EF >= 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 heat
    b. Cost not to exceed $1900
    c. Existing System EF<=0.90
    d. EF >= 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

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 heat
    b. Cost not to exceed $1900
    c. Existing System EF<=0.90
    d. EF >= 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.

d. If existing windows are single pane, aluminum windows.

e. Emissivity <+0.22

f. 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 heat
    b. Cost not to exceed $1900
    c. Existing System EF<=0.90
    d. EF >= 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
    b. Not to exceed $2.50 per square foot
4. CFLs
    c. If existing lighting is incandescent bulb in use for 2 hours per day or more
    d. 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 heat
    b. Cost not to exceed $1900
    c. Existing System EF<=0.90
    d. EF >= 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.
    g. If existing windows are single pane, aluminum windows.
    h. Emissivity <+0.22
    i. 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
    b. Not to exceed $2.50 per square foot
4. CFLs
    c. If existing lighting is incandescent bulb in use for 2 hours per day or more
    d. 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 heat
    b. Cost not to exceed $1900
    c. Existing System EF<=0.90
    d. EF >= 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.
    j. If existing windows are single pane, aluminum windows.
    k. Emissivity <+0.22
    l. Cost of storm windows not to exceed $15.00/ square foot

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
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
    g. If there is an existing electric water heat
    h. Cost not to exceed $1900
    i. EF >= 2.4
    j. Dwelling must not contain an electric resistance furnace if water heater is to be put into conditioned space
    k. 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
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 heat
    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
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
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 heat
    b. Cost not to exceed $1700
    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
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

GENERAL WASTE HEAT ITEMS

ALLOWABLE MEASURES WHICH DO NOT REQUIRE A COST EFFECTIVENESS TEST

Low-flow Showerhead- Minimum 1 plumbing permitted
Faucet Aerator- Minimum 1 plumbing permitted
Weather-stripping
Water Heater Insulation (Only for Electric Water Heaters and if local building codes permit)
Furnace or Cooling Filters (up to a one-year supply)
Door Sweep
Pipe Insulation (If applicable)
Set Back Thermostat

Total cost of LCNC should not exceed $250 of total house cost.

DURABILITY MEASURES

Measure installed to protect or insure the long-term effectiveness energy measures are allowed. Total expenditures are subject to budget limitations.

PRESSURE DIAGNOSTIC PROCEDURE

The pressure diagnostic procedures are to be followed when performing air leakage diagnostics and repair. These procedures provide crews with immediate feedback on the effectiveness of air sealing work, insure that repairs will provide long-term energy benefit in a safe manner, and provide essential management information needed to monitor the cost effectiveness of the air sealing programs. Pressure Diagnostic Decision Tree

The pressure diagnostic decision tree provides assistance to agency personnel in identifying the minimum level of pressure testing that needs to be performed to meet the Weatherization Program requirements. The decision tree is comprised of two levels of housing characteristics and corresponding test requirements. In all cases, air sealing can only be performed in conjunction with pressure diagnostics.

Level One: Homes with Central Forced Air Heating or Cooling

The **complete** pressure diagnostic process must be followed in all cases on homes with a central forced air heating or cooling system. (Evaporative cooling is not considered a forced air system in this case.)

Level Two: Homes with No Central Forced Air Heating or Cooling

The use of pressure diagnostic process is **optional** in homes that do not have a central forced air heating or cooling system and that do not contain the characteristics listed below.

Possible cost effective envelope sealing: Pressure diagnostics must be completed on homes where the cost of space heating and/or cooling provides possible cost effective envelope sealing opportunities.

Combustion appliance zone testing: The Worst Case Pressure Test must be performed in all zones that contain a combustion appliance.

Testing Procedure
When performing pressure diagnostic, crews are required to use the following procedures **IN SEQUENCE.** If a test is not performed, documentation must be provided in all cases stating the rational for not following the testing procedure.

1. Initial air leakage and room pressure tests
Duct repair
Envelope air sealing
Room pressure balancing

1. Initial Air Leakage and Room Pressure Tests:
These initial tests will provide reference information on the existing condition of the home. This information will be used to determine what retrofit measures are to be completed and their effectiveness.

Perform a complete energy audit and combustion safety test of the house. No pressure testing or air sealing can be done until the required combustion safety procedure is completed.

A. Perform Room Pressure Tests (dominant duct leakage test, room pressure test, and combustion appliance zone [CAZ] test) and record pressures. List combustion appliances located in rooms tested. **If a pressure of –3 Pascal's (Pa) or more exists in a CAZ, or the possibility exists that repair work will create a pressure of –3 Pa or more in a CAZ, corrective action must be completed before or in conjunction with air sealing or duct repair.** Discuss possible corrective action with the client. **If client refuses to allow corrective action to be completed,** no air sealing or duct repair can be completed.

Perform zonal pressures and record the results.
Perform initial Whole House CFM50 Test and record the results.
Perform Pressure Pan Test and record initial pressure difference.
F. Based on the results of the energy audit, combustion safety tests, and pressure tests, determine the extent of work to be completed.

2. Duct Repair Procedure:

Duct repair can only be performed under the supervision of a trained technician.
In all cases, air sealing can only be performed in conjunction with pressure diagnostics.
The Health and Safety Policy must be followed at all times.
Perform duct repair using approved products (see Product Guidelines) and repair techniques (see Duct Repair Techniques).
D. After initial duct repair is performed, evaluate if additional duct repair is possible.
E. Once all attainable duct leakage is repaired, perform post duct repair Whole House CFM50 Test and pressure pan readings. The difference between the initial Whole House CFM50 Test and the post duct repair Whole House CFM50 Test will provide the CFM reduction in duct leakage.

3. Envelope Air Sealing Procedure:

All duct repairs must be completed before envelope air sealing.
Envelope air sealing can only be performed under the supervision of a trained technician.
In all cases, air sealing can only be performed in conjunction with pressure diagnostics.
D. The Health and Safety Policy must be followed at all times.
E. Perform air sealing with high-quality products. Weatherization products must be permanent and guaranteed for at least 15 years.
F. Repeat Whole House CFM50 Test after air sealing work is performed and evaluate if additional air sealing is possible (see Health and Safety Policy for CFM ventilation requirements).
G .Once air sealing is completed, perform final Whole House CFM50 Test and record results.

4. Room Pressure Balancing:

All duct repair and air sealing must be completed before room pressure balancing.
Room pressure balancing can only be performed under the supervision of a trained technician.
In all cases, room pressure balancing can only be performed in conjunction with pressure diagnostics.
The Health and Safety Policy must be followed at all times.
Perform post air sealing room pressure tests (dominant duct leakage test, room pressure test, and worst case test) and record room pressures.
Review options to remedy pressure imbalances with the client. If pressure balancing is not performed, record reasons in the work summary.
Repeat room pressure tests after initial pressure balancing measures are installed and evaluate if addition pressure balancing is needed.
Once pressure balancing is completed, repeat room pressure tests and record results.

COMBUSTION SAFETY AND CARBON MONOXIDE PROCEDURES

The Combustion Safety procedure records data on combustion appliances in the house, possible health and safety issues with these appliances and the actions taken by the Weatherization program. Because combustion appliances can be the dominant factor in the health and safety of the occupants, it is imperative that the combustion safety procedures are followed in all cases.

Note: Gas/propane stoves cannot be replaced utilizing DOE funds.

Carbon Monoxide Tests
Ambient CO levels shall be monitored upon entering the combustion appliance zone and during the test period for all appliances. If ambient levels exceed 35 ppm at any time, turn off the appliance immediately and make appropriate repair recommendations according to the charts provided.

CO shall be measured of undiluted flue gases, in the throat or flue of the appliance using a digital gauge and measured in parts per million (ppm). Do not drill holes in flues for power vented or sealed combustion units. Instead, measure CO at the exterior outlet of the flue and proceed with appropriate actions according to the CO limits identified in the Combustion Safety Action Level table. For all combustion appliances, CO shall be measured at steady-state operating conditions. Measurements shall be taken of undiluted flue gases.

With the exception of unvented gas or propane cooking appliances, CO must be tested in all combustion appliances under worst-case conditions and normal draft conditions (when the appliance fails under worst-case). In addition, it is recommended that CO be tested under a mild down-draft if conditions are safe.
For gas ovens, CO shall be measured at steady state (usually after 5-10 minutes of operation) at the highest setting. When measuring CO on gas ovens, it is recommended to turn on the exhaust hood and open a window to reduce risk of exposure to elevated ambient CO levels.

Spillage and Draft Tests
Spillage and draft tests must be completed for all natural and induced draft space heating systems and water heaters. Spillage and draft must first be tested under worst-case conditions (see procedure below) and then repeated for natural conditions if the appliance fails under worst-case.

When a chimney is shared by multiple appliances the appliance with the smallest Btu input rating shall be tested first and remaining appliances tested in order of increasing input rate.

Induced draft heating systems shall be checked for spillage at the base of the chimney liner or flue. If a chimney is shared between an induced draft heating system and a natural draft water heater, spillage shall be checked at the water heater draft diverter. Vent draft pressure shall be measured at steady-state operating conditions for all natural draft heating and hot water appliances. Draft test location should be approximately 1-2' downstream of the appliance draft diverter. The test hole must be sealed with an appropriate plug after the test. Acceptable draft test results are shown below:

Acceptable Draft Test Ranges

Outside Temperature (degree F)	Minimum Draft Pressure Standard (Pa)
<10	-2.5
10-90 (T. out ÷ 40)	– 2.75
>90	-0.5

Most appliances will spill upon startup with a cold chimney. Document the amount of time it takes for spillage to stop and a positive draft to be established. Any appliance that continues to spill flue gases beyond the time limits established in the statement below has failed the spillage test.

Acceptable Appliance Spillage Periods
Vented appliances, regardless of type, that spill flue gases for more than 60 seconds after startup, fail the spillage test.

Gas Supply Safety
The entire gas/propane line must be examined and all leaks repaired. Particular care should be made in the immediate vicinity of the appliances and at the joints, shutoff valves, and pilot lines. Identify leaks using a gas leak detector and accurately locate the source of the leak using a soap bubble solution. Flexible gas lines must be replaced if they are: kinked, corroded or show signs of visible wear, the line was manufactured before 1973 (date is stamped on the date ring attached to the line), or the line has any soldered connections.

Combustion Air
Combustion air requirements, as prescribed in NFPA 54 or local gas codes, must be met on all homes with combustion appliances.

The Kbtu per hr input for heating and water heating equipment must be listed. If Kbtu per hr information is not available, state this fact and estimate input.
The location of all heating and water heating equipment must be listed.

The source and amount of combustion air for all heating and water heating equipment must be listed. For appliances that are using an interior space for combustion air, the cubic feet available is determined by the volume (area X height) of the space. Areas that can be isolated and the flow of air restricted from the combustion appliance are not to be included.

Heat Exchanger Safety Checks
Tests for possible cracked heat exchanger must be performed on all systems possible.

HVAC EQUIPMENT AND DISTRIBUTION INSTALLATION/REPAIR POLICY

The following policy must be strictly adhered to when installing or repairing HVAC equipment and distribution systems.

Repair/Replacement
Replacement of inoperable equipment is allowed under the following conditions. A complete REM Design is required for all replacement.

- Existing inoperable AC equipment upgraded with a minimum 13 SEER unit if the replacement costs are less than the estimated repair cost and the lost saving potential of the new equipment.

- Existing inoperable forced air furnace equipment upgraded with a 90+ AFUE unit if the replacement costs are less than the estimated repair cost and the lost saving potential of the new equipment.

Sizing and Installing HVAC Equipment
Minimum HVAC efficiencies:
AC: 13 SEER
Heat Pump: 13 SEER and 7.7 HSPF
Combustion furnace: 80% AFUE.

- New mechanical systems shall be sized according to the ACCA Manual J. Room-by-room load calculations using the ACCA Manual J shall be submitted for each plan to verify sizing.
- Airflow across the indoor coil and/or heat exchanger shall conform to the manufacturer's specifications.
  - Refrigerant charge shall be installed per the manufacturer's specifications.
  - Indoor and outdoor units shall be "matched" according to the ARI Directory.

Evaporative Cooler Installation
It is strictly prohibited to install an evaporative cooler on the ductwork of a forced air heating or cooling system that did not previously include an evaporative cooler. Replacing an existing evaporative cooler with a new evaporative cooler on a forced air heating or cooling system is an allowed health and safety measure.

All existing evaporative coolers must be equipped with a damper system that allows the cooler to be isolated from forced air ductwork or the conditioned space.

Installation of Forced Air Distribution Systems
All new ductwork must be installed according to the Duct Installation/Repair Techniques and Product Guidelines. All duct systems must be pressure tested and the CFM leakage rate cannot exceed 3% of conditioned sqft or 5% of high speed fan flow of the systems air handler capacity.

- Airflow to each room shall match designed airflow calculations from the ACCA Manual J to within +/- 10%.

Repair of Existing Air Distribution Systems
All ductwork must be repaired according to the Duct Installation/Repair Techniques and Product Guidelines.

Duct Installation / Repair Techniques
Flex ducts

- Seal the start collar to the plenum using mastic reinforced with mesh around the entire circumference.
- At all connections (triangles, junction boxes, etc.), fasten the inner liner to the start collar using a mechanically tightened draw band for mechanical strength.
- Seal the inner liner using approved mastic reinforced with fiberglass mesh and overlaid with another layer of mastic sufficient to cover the entire pattern in the mesh.
- Fasten the outer liner well over the start collar using a mechanically tightened draw band.
- Seal all boots to the Sheetrock using mastic or silicone caulk applied at the point where the air barrier (metal or exterior foil backing) meets the Sheetrock.

B. Duct board

- Staple all duct board joints with appropriate staples every two inches.
- Apply a layer of mastic; embed reinforcing mesh and overcoat with another layer of mastic sufficiently thick to hide the pattern in the tape.
- Allow for proper curing (manufacturer's specifications) before starting the system. This is critical.
- Seal all boots to the Sheetrock at the point where the foil backing meets the Sheetrock.

C. Metal

- Seal all points where components join together using mastic. Special attention must be given to any area where tabs provide the method of securing the joint.
- Seal all boots to the Sheetrock at the point where the metal meets the Sheetrock.
- Join all components with screws or other mechanical fastening devices as required in listings or code.

D. Building Cavities Used as Returns

- If the cavity is lined with Sheetrock, seal all joints with mastic. All gaps over 1/4 inch must be reinforced with embedded mesh tape.

- If the cavity is lined with duct board with the fiberglass side facing inside, you must create a positive air barrier in the plenum by covering the fiberglass with a material such as Sheetrock, duct board with the foil facing inside, or coat the fiberglass with mastic, etc., and seal all remaining joints in the plenum.

- If the cavity is unlined (exposed studs) and it is impossible to line the plenum, seal all joints, holes and penetrations using mastic applied with a brush attached to a handle or other extension. It may be easier and more effective to simply create a ducted plenum or chase and avoid the problems associated with using a building cavity to convey conditioned air.

- It may be necessary to cut a hole in the plenum in order to gain access and seal the interior adequately.

E. Air Handler

- Seal all penetrations and gaps between materials using mastic or silicone. If the gap is over ¼ inch, reinforce with fiberglass mesh.
- Seal the areas where the air handler meets the supply/return plenums using mastic reinforced with fiberglass mesh or other approved methods.
- Seal any panels that will require frequent access by the client (such as the filter area), using a quality temporary tape (duct tape).
- The air handler must not have any noticeable leaks.

F. Wall Penetrations

(The most common wall penetration problem is where the opening for the return grille is cut through the wall. In such an installation, even in a lined plenum, the wall cavity is open into the plenum.)

- Where an un-ducted section of the air distribution system penetrates a wall cavity, the wall cavity must be sealed.
- The cavity will first be blocked using a rigid air barrier such as Sheetrock or duct board with the foil facing the airflow.
- All seams, cracks, crevices, and openings will then be sealed airtight using approved mastic.

Duct Product Guidelines

All new ductwork will be a minimum of R-8.

Duct sealing materials shall have both excellent cohesive and adhesive qualities.

Water-based Latex mastic with at least 50 percent solids reinforced with fiberglass mesh at all duct connections, joints and seams shall be used. "Hardcast" type mastic with reinforcing mesh is also acceptable.

- The ducts shall be further attached as per manufacturer's specification, using a draw tie, plumbing strap or screws, as appropriate for a strong mechanical connection. The mechanical connection **does not** replace air sealing.
- Foil tapes, including UL 181 AP-type tapes, when used alone will not be accepted. If tape is used to temporarily hold a seam, it must be overlaid with a coating of mastic that extends at least one inch (1") past the tape on all sides, and is thick enough to hide the tape completely.
- Do not use materials that are potentially damaging or have harmful effects, such as toxic vapors or carcinogenic substances that may be harmful to the clients or the installer. Agencies are required to obtain and maintain the Material Safety Data Sheets (MSDS) for all materials used on the job. Federal law requires this procedure; further information is available locally from the vendor.
- Materials must meet all current codes and manufacturer's specifications.

INSULATION STANDARDS

Installation of Insulation

Insulation must be installed with no gaps, no voids, no compression of the insulation, or no wind intrusion into the insulation. Insulation must also be in alignment with the air barrier in all cases.

All items on the Thermal Bypass Inspection Checklist must be verified where accessible. Items not meeting these standards must be repaired unless the repair is not cost effective. The Checklist includes the following 12 areas:

Shower/Tub at Exterior Wall: Exterior walls behind tub or shower have been fully insulated. Exterior walls behind tub or shower have been faced with air barrier material.
Insulated Floor above Garage: Floor framing is completely filled with insulation or insulation is snug against sub-floor. Air barrier is installed at any exposed edges of insulation.
Attic Knee Walls Air barrier is installed on attic side of insulated wall. Insulation is in complete alignment with interior wall finish.
Attic Hatch/Drop-down Stair Attic: Opening is fully gasketed for an air-tight fit. Hatch is covered with insulation that is attached and fits snugly in framed opening.
Cantilevered Floor: Floor framing is completely filled with insulation or insulation is snug against sub-floor. Air barrier installed at any exposed edges of insulation.
Duct Shafts: Opening is enclosed as required with flashing and any remaining gaps are sealed with caulk or foam.
Flue Shaft: Opening is fully enclosed as required with flashing. Combustion clearance between flue and combustible flashing (e.g., OSB panel) are properly closed with metal collars and any remaining gaps are sealed with fire-proof caulk or foam.
Piping Shaft/ Penetrations: Opening is fully enclosed as required with flashing and any remaining gaps are sealed with caulk or foam.
Dropped Ceiling/Soffit Air barrier is fully aligned with insulated framing and any gaps are fully sealed with caulk or foam.
Fireplace Wall: Air barrier is fully aligned with insulated framing in framed shaft behind fireplace and any gaps are fully sealed with caulk or foam.
Staircase Framing at Exterior Wall/Attic: Air barrier is fully aligned with insulated framing and any gaps are fully sealed with caulk or foam.
Whole-house Fan Attic Penetration: An insulated cover is provided that is gasketed to the framed opening.

RENEWABLES

Section 206 of the Energy Policy Act of 2005 (EPACT 2005) amended the Energy Conservation and Production Act to clarify that assistance under the Weatherization Assistance Program may be provided for renewable energy systems and to provide definitions and criteria to be used in assessing eligibility

Cost Effectiveness
Renewable energy systems must follow the Cost Effectiveness Procedures. Local agencies must determine that the renewable energy system is cost effective by ensuring the discounted savings-to-investment ratio (SIR) is greater or equal to one. The net cost of renewable energy systems after rebates from third parties can be used for the SIR review.

Product Guidelines

Renewable energy systems must meet the requirements established by the State of Arizona for state tax credits which imposed several requirements on the seller of solar devices in order to qualify the equipment and application. Title 44, chapter 11, article 11 of the Arizona revised statues (44-1761- Definitions, and 44-1762 - Solar energy device warranties; installation standards; inspections) provides details on the requirements.

FINAL INSPECTION REQUIREMENTS

A final inspection shall be performed on all jobs.

The final inspection must be completed by designated inspector who did not conduct the initial energy audit and not directly involved with the completion of the job. Special consideration will be taken for subgrantees with limited staff or long distance travel. Subgrantees who would like to request a waiver for this requirement must submit in written a letter to the OEP Weatherization Manager stating the circumstances why this requirement cannot be meet and how they plan to address conducting the final inspections. This letter must be submitted annually at time of contract.

The final inspection shall verify that the house characteristics reported are correct.

The inspection shall verify that all cost effective opportunities were completed.

The inspection shall include all measures listed on the Work Performed report to verify installation has been completed in a safe and effective manner.

The inspection shall include a review of the diagnostic result, both pressure and combustion safety, to verify that all applicable tests were completed.

The inspector shall complete diagnostics on minimum of ten percent of completed homes to compare with reported results.

HEALTH AND SAFETY PLAN

Allowable energy related health and safety actions are those actions necessary to maintain the physical well being of both the occupants and/or weatherization workers where:
Costs are reasonable as determined by DOE in accordance with this approved Master Plan;
The actions must be taken to effectively perform weatherization; or
The actions are necessary as a result of weatherization work.
Each subgrantee will have 20% of their program operations set aside for energy related health and safety repairs. Each subgrantee will be responsible for the management of their health and safety budget and will be required to bill health and safety repairs as a separate budget line item. Subgrantees will also be required to obtain written approval from OEP for all health and safety repairs exceeding $2000. Subgrantees are also reminded that any health and safety expenses in excess of 20% of subgrantee program operations budget will result in disallowed cost.

Home Assessment & Client Evaluation

The weatherizing subgrantee must determine presence of at-risk occupants before proceeding with evaluation services. The Client Health & Safety Evaluation form must be reviewed and signed by the client and evaluator before the evaluation is started. (This form has been drafted and will be implemented 7/1/12)

Crew and client H&S issues are viewed as closely linked in the areas of site conditions and work procedures. Working from this concept, which assumes that any hazard associated with a work site, whether it is a work practice, an existing condition, client behavior, and so forth, has the potential of harming both crew and client, a holistic approach towards H&S is taken throughout the entire process of weatherizing a home, with special emphasis given to the initial inspection.

The initial audit, by a qualified Auditor/ Inspector, should include sensory inspections and diagnostic testing as listed in the WAP guidelines to verify the existing conditions of the home and any Health & Safety issues that could arise or halt production on said home. Details on existing conditions that could hinder Weatherization are listed below.

All of this is contingent on having well trained inspectors/ auditors. H&S issues are revealed before any work is ever done. This goes a long way towards preventing any harm befalling either crew or client.

Occupant Preexisting or Potential Health Conditions

A feature of any inspection includes client education, whereby the occupant's health problems are addressed. Once a clear understanding has been reached between the program inspector and the occupant, work practices will be deployed so as not to aggravate any preexisting condition. In some rare instances, a deferral may be the only solution.

When a person's health may be at risk and/or the work activities could constitute a health & safety hazard, the occupant at risk will be required to take appropriate action based on severity of risk. Temporary relocation of at-risk occupants may be allowed on a case by case basis. Failure or the inability to take appropriate actions must result in deferral.

Occupants will be required to reveal known or suspected health concerns as part of initial application for weatherization. The occupants of the dwelling will be screened again during the audit. The client must be provided

with information of known risks. It will also require that worker contact information (in the form of agency weatherization office staff phone numbers) be given to the client so client can inform of any issues

Health & Safety Issues

As potential hazards are identified by the Initial Auditor/ Inspector in the Home Assessment & Client Evaluation as listed above, they are analyzed in terms of their severity and how they will be dealt with up to and including deferral. Wherever possible, measures should be considered through the cost justification method of an SIR>1 as an Energy Conservation Measure (ECM) first, before using funds from the H&S allocation. Clients must always be informed of any Health or Safety risk discovered during the evaluation process in writing and written confirmation of receipt of that information by the client must be obtained and kept in the client file. A listing of Health and Safety issues are compiled, any of which that can't be corrected can result in a deferral on any given project. They are as follows:

Air Conditioning and Heating Safety

"Red tagged", inoperable or nonexistent HVAC system replacement, repair, or installation is allowed where climate conditions warrant, unless prevented by other guidance herein. Arizona climate involves a defined heating and cooling season with a Heating Degree Day (HDD) measurement range from 1180 to over 7200. The Cooling Degree Day (CDD) measurements in Arizona range from 573 to more than 5100. Arizona has a vast difference across the state due to the four recognized climate zones and a the vast difference in elevation changes from a few hundred feet above sea level to more than 7000 feet above sea level.

Research indicates of all people who die of heat stroke, about 80 percent are age 50 or older. Deaths attributed to lung disease, diabetes and hypertension increase more than 50 percent during heat waves. Heat stroke occurs 12 to 13 times more frequently in people age 65 and older than in younger persons. It is also an accepted medical fact that infants and children up to four years of age are very sensitive to the effects of high temperatures and rely on others to regulate their environment.

Air conditioning is the number one protective factor against heat-related illness and death effecting people with health issues. Therefore air conditioning system replacement, repair or installation is allowed to be categorized as health and safety in homes with occupants under four years old, over 65 years old and where there are at-risk occupants. Air conditioning system replacement, repair or installation must be attempted through cost justification as an ECM first before using H&S funding. Where this measure can be justified by the approved REM or EA-Quip audit, replacement, repair or installation is not to be included in health and safety.

Reminder- Air conditioning units cannot be installed on rental properties, as it is the requirement of the Landlord pursuant to the Arizona Landlord Tenant Act.

All replacement of HVAC equipment shall first be modeled in REM Design to attempt a SIR of 1 or greater prior to being installed as an H&S measure.

Houses with occupants between the ages of 4-64 requesting the need for air conditioning based on their health being at risk must provide a letter from a doctor defining the condition requiring an air conditioned environment and the maximum allowable air temperature relevant to that person's individual condition.

Repair of all combustible fuel line leaks from the meter or tank to the heating system or appliance are allowable H&S measures. Materials must meet federal, state, and local code. Repair (only) of gas cooking appliances in order to eliminate gas leaks and reduce unsafe levels of carbon monoxide in living area. Repair materials must meet federal, state and local code. Installation of protective materials on combustible surfaces adjacent to energy systems to meet NFPA clearance codes is allowable. Materials and installation must meet NFPA specifications. Materials must meet federal, state and local code.

Heating Systems

Heating systems are repaired or replaced, under H&S, when not operational or unsafe. This measure is taken in order to eliminate unsafe levels of carbon monoxide in the living area and to ensure adequate heating. Justification documentation in the form of the appropriate heat system checklist (per energy source) which includes all required diagnostic recordings for the individual unit, and photos demonstrating the specific issue(s) with the system must be in the client file. Replacement of operational units, where diagnostic readings are attainable, must be attempted to be cost justified as a ECM using regular weatherization funds with an SIR>1 before using H&S funds. A unit with a cracked heat exchanger where diagnostic readings are attainable must be attempted to be replaced through cost justification as an ECM first before using H&S funding. Replacement of non-operational units can only be from H&S funding.

Air Conditioning & Cooling Systems

In a case where an AC system must be replaced and it cannot be justified as an ECM, replacement is an allowable expense under H&S and will always require an approved waiver from OEP. Evaporative Cooling will always be considered an H&S measure but do not require a waiver unless the $2000 threshold is exceeded.

Package Unit Systems

When a package unit is encountered and only one component of that system is inoperable, you must first attempt to service the unit using H&S funds. If servicing the unit does not work and replacement of the inoperable component is determined to be less economical than the replacement of the entire unit, H&S funds may be used upon receiving written approval from OEP.

The weatherizing subgrantee must determine presence of at-risk occupants while also ensuring systems are present, operable and performing. Subgrantees must discuss and provide clients with information on the appropriate use and maintenance of units, with explanation, from the subgrantee.

Appliances and Water Heaters

Replacement of water heaters under H&S is allowed on a case by case basis under the following conditions outlined:
Local agencies may replace a water heater if the cost of repair exceeds the cost of replacement or if the broken water heater is more than 10 years old.
Pictures of the old water heater are to be on file at subgrantee's office.

Information and explanation on appropriate use and maintenance are to be provided to client after installation.
Disposal of old appliances and water heaters must be handled by subgrantee or their contractor.

Replacement and installation of appliances other than water heaters, such as stoves or washing machines, are not allowable H&S costs.

Asbestos

Asbestos anywhere on the interior of the dwelling that would need to be addressed either directly or incidentally during the weatherization process is not an allowable H&S cost. Testing by an AHERA professional for Asbestos is an allowable Health & Safety cost however Abatement of Asbestos is not. Policies have been in effect for asbestos presence and related work practices for many years. The approach is not to disturb, cut or drill said material and deter those measures that might do so. In instances where measures can be installed without disturbing asbestos surfaces or materials, that is the best approach. In instances where a local authority such as Code Enforcement imposes specific guidelines or requirements, service provider program staffs are to make themselves aware of those restrictions and comply with them.

If it is determined, by the Initial Auditor/ Inspector in the Home Assessment & Client Evaluation as listed above, that weatherization work cannot be performed without creating a hazard the project is to be deferred. The client is to be informed in writing of the potential hazard and the agency must not return to weatherize until an AHERA certified professional issues a clearance statement. A copy of this statement/report must be kept in the client file.

Prior to drilling or cutting an exterior wall the subsurface must be inspected for asbestos.

When vermiculite is present, unless testing determines otherwise, the unit is to be deferred. Where blower door tests are performed, it is a best practice to perform pressurization instead of depressurization. Encapsulation by an appropriately trained professional is allowed. However asbestos encapsulation and testing cost are not reimbursable by the AZ WAP. Removal is not allowed.

With regard to pipes, furnaces and other small covered surfaces, assume asbestos is present in the covering materials. Encapsulation is allowed by an AHERA asbestos control professional and should be conducted prior to blower door testing.

Clients must be informed that suspected asbestos is present and how precautions will be taken. Clients will be instructed not to disturb suspected asbestos containing material. Clients must be provided information and explanation on asbestos safety information and steps to correct deferral conditions (where applicable). The clients are required to a sign a form, provided by the weatherizing agency, indicating they have been informed (where applicable).
Biologicals and Unsanitary Conditions – odors, mustiness, bacteria, viruses, raw sewage, rotting wood, etc.

A sensory inspection is required. Clients must be informed of observed conditions. Clients must be provided information and explanation on how to maintain a sanitary home and steps to correct deferral conditions (where applicable).

Remediation of conditions that may lead to or promote biological concerns and unsanitary viruses is not an allowable cost. Addressing bacteria and viruses is not allowed. Cleaning or repairing biological and unsanitary conditions to perform weatherization is not allowed. Deferral may be necessary in cases where a known agent is present in the home that may create a serious risk to occupants or weatherization workers. Also see Mold and Moisture bullet below.

Building Structure and Roofing

Site conditions identified and documented by the Initial Auditor/ Inspector in the Home Assessment & Client Evaluation as listed above, that poses a safety hazard to its employees and subcontractors and cannot be corrected within the scope of the program. Building structure & roofing should be evaluated visually as to not disturb any existing conditions.

Building Structure – Structural problems with candidate dwellings can often lead to deferral because their scope is beyond the means of the program to treat. Beyond simple incidental repairs, such as roof patching, there is no feasible means to address severe structural defects.

During the pre-inspection or initial inspection of the dwelling, the evaluator must have access to all aspects of the structure in order to adequately and appropriately gather data for the REM energy audit if not using Priority List or to conduct the weatherization work itself. Clothing, dogs, trash or other impediments restricting access to any portion or portions of the dwelling that block necessary access may constitute a deferral.

Building rehabilitation is beyond the scope of the WAP. H&S funds should not be used when the repair is a component of an ECM. In that case, the repair should be cost justified as an incidental repair. Clients must be notified of structurally comprised areas (where applicable).

Code Compliance

Correction of preexisting code compliance issues is not an allowable cost other than where they are triggered by performing weatherization measures. State and local (or jurisdiction having authority) codes must be followed while installing weatherization measures. Condemned properties and properties where "red tagged" health and safety conditions exist that cannot be corrected under this guidance should be deferred.
Per WPN11-6a if a permit is pulled to replace a HVAC system, water heater or other appliance requiring a permit and it is require by the municipality to upgrade all smoke alarms in the home to hardwire with battery backup it would be allowed

Clients must be notified of observed code compliance issues (where applicable). H&S funds should not be used when the repair is a component of an ECM, such as fixing a light fixture in order to install a CFL bulb. In this case the cost should be cost justified as an ECM with the associated incidental repair.
Combustion Gases

Proper venting to the outside for combustion appliances, including gas dryers is required. Correction of venting is allowed when testing or inspection indicates a problem. Combustion safety testing is required when combustion appliances are present.

Correction of venting issues shall be completed and should be done as an incidental repair when it is a component of an ECM. Proper venting to the outside for combustion appliances, including gas dryers is required. Combustion safety testing is required when combustion appliances are present. Inspections, by the Initial Auditor/ Inspector in the Home Assessment & Client Evaluation as listed above, must include:

Inspections of venting of combustion appliance and confirmation of adequate clearances to combustibles.
Testing natural draft appliances for draft and spillage under worse case conditions before and after air sealing.
Inspection of cooking burners for operability and flame quality. Replacement of Cook stoves is not allowed. Repair is an allowable H&S cost.
Testing by approved WAP procedures of ambient air in combustion appliance zones & undiluted flue on applicable appliances.

Clients must be provided information and explanation of combustion safety and hazards information, including the importance of using exhaust ventilation when cooking and the importance of keeping burners clean to limit the production of CO.

Drainage – gutters, down spouts, extensions, flashing, sump pumps, landscapes, etc.

Drainage repairs are allowed with H&S funds only as they relate to code compliance. A repair is allowed as incidental repair when it is a component of an efficiency measure, but must be cost justified with the ECM(s).

Major drainage issues are beyond the scope of the Weatherization Assistance Program. Homes with conditions that may create a serious health concern that require more than incidental repair should be deferred. See Mold and Moisture bullet below.

What are major drainage issues?
Where the need for excavating equipment is brought
Installing gutters on more than half the home

An area more than 40 square feet where dirt is required to be moved

Clients must be provided information and explanation of the importance of cleaning and maintaining drainage systems, as well as the benefits of landscape design (where applicable).

Electrical, other than Knob-and Tube Wiring

Minor electrical repairs are allowed where health and safety of the occupants is at risk. Upgrades and repairs are allowed when necessary to perform specific weatherization measures such as relocating an electrical outlet to allow for a dryer to be relocated for proper ventilation or proper connection of an existing water heater.
Clients must be provided information and explanation on the hazards of overloading circuits, basic electrical safety/risks and over current protection (where applicable). H&S funds should not be used when the repair is a component of an ECM such as a service upgrade to handle increased load of a new HVAC system.

Electrical, Knob-and Tube Wiring

Knob and Tube wiring in a home in Arizona will make that home a deferral until the wiring can be upgraded to current wiring codes by homeowner or other program. Subgrantees are encouraged to seek all available programs to assist low-income households.

Subgrantees are required discuss and provide information and explanation to the client on the hazards of overloading circuits, basic electrical safety/risks and over current protection (where applicable).

Fire Hazards
Current inspection criteria (by the Initial Auditor/ Inspector in the Home Assessment & Client Evaluation as listed above) take into account fire hazards associated with combustion appliances including clearances and venting systems. Through fuel specific checklists, inspectors identify such hazards and make repairs accordingly with respect to budgetary and program limitations. Required adherence to appropriate NFPA codes when repairing or replacing equipment also minimizes the potential for fire hazards.

Correction of fire hazards is allowed when necessary to safely perform weatherization. Home evaluations include checking for fire hazards during the audit. Clients must be informed of observed hazards even if they will not be treated during weatherization.

Formaldehyde, Volatile Organic Compounds (VOCs) and other Air Pollutants

Formaldehyde and Volatile Organic Compounds (VOCs) – Formaldehyde, tobacco smoke, thinners, solvents, cleaners, and any other substances capable of negatively impacting indoor air quality are identified through the On-site inspection process. Basic strategies such as proper storage and ventilation are used to eliminate problems. Air sealing thresholds are maintained so that the presence of these pollutants are not concentrated and allowed to reach toxic amounts. However, this is primarily an occupant responsibility. In some cases, deferral may be an option.

Removal of pollutants is allowed and is required if they pose a risk to workers. If it is determined, by the Initial Auditor/ Inspector in the Home Assessment & Client Evaluation as listed above, that pollutants pose a risk to workers and removal cannot be performed or is not allowed by the client, the unit must be deferred. Removal of pollutants that is not necessary to perform weatherization (e.g. cleaning old paint cans and oil out of the garages) is not allowed.

Clients must be informed of observed conditions and associated risks. Client must be given written information and explanation on safety and proper disposal of household pollutants (where applicable).

Injury Prevention of Occupants and Weatherization Workers – Measures such as repairing stairs and replacing handrails

Workers must take all reasonable precautions against performing work on homes that will subject workers or

occupants to health and safety risks. Minor repairs and installation may be conducted only when necessary to effectively weatherize the home; otherwise these measures are not allowed.

The Initial Auditors/ Inspectors, as well as workers where jobs are in progress, are to observe if dangers are present that would prevent weatherization. Clients must be informed by auditors and/or workers of observed hazards and associated risks (where applicable)

Lead Based Paint

Presence of lead based paint associated with dwellings built before 1978. State policy mandates that all personnel working directly on dwellings shall participate in an eight (8) hour Lead Workers Safety class. With respect to Lead Based Paint issues, AZ WX uses an approach that addresses client safety and awareness, worker safety and awareness, and on-site practices.

The head of household of pre-1978 homes to be weatherized receives the informational pamphlet: "Renovating Right". The inspector will also conduct a client education segment as part of the initial inspection to assure that the occupants are fully aware of the hazards posed by Lead Based Paint exposure. This procedure is documented by using a signed receipt from the head of household which confirms that the information was not only distributed, but also explained. This receipt is kept in the client file.

All workers on site on any Weatherization project, whether they be a crew based employee of one of the subcontractors or a private sector contractor, must complete an eight (8) hour Lead Safe Worker Practices Workshop. The aim of this course is to inform the worker about Lead hazards and the proper ways to deal with them, and in doing so, to work in such a way as to not expose client families (and their own families) to these hazards. All crews and contractors are required to carry HEPA vacuum machines, respirators, disposable bio suits, and all other items associated with safe Lead Work Practices.

The program manual addresses this area specifically with detailed guidance for onsite protocols:

·Wear a tight fitting respirator and disposable coveralls.
·Seal work areas within a home with tape and plastic. Cover furniture, carpet, and other surfaces with plastic drop cloths or tarps.
·Spray water on disturbed areas to minimize dust.
·Clean-up work area each day. Sweep carefully and wet mop as needed. Use a HEPA vacuum cleaner to collect dust and paint chips.
·Keep children away from work area at all times.

While this represents only a summary of the overall Lead Safe Practices and training, it illustrates AZ WX's awareness of the issue and how it is integral to any weatherization project.

Lead Safe Weatherization work practices occur only due to health and safety concerns. It cannot be considered part of an efficiency measure and shall always be calculated and charged as a health and safety cost.

OEP's monitoring staff will have oversight responsibility in this area. While Lead Safe Work Practices have long been built into the program, the monitors will focus more directly on this area as they conduct their monitoring visits. Program operators will be required to show that all Lead Based Paint protocols: information sharing, lead safe work practices, proper equipment, and so forth are up to date and in compliance to all regulations whatever they turn out to be. Those programs that are not in compliance, and fail to comply once identified, will face the most serious sanctions that can be leveled: reduced allocation to start with, loss of contract if necessary. Special attention will be aimed at those programs failing to meet requirements in the area of Lead Safe Work Practices since it poses such tangible consequences for the households that are served.

Subgrantees must follow EPA's lead; Renovation, Repair and Painting (RRP). In addition to RRP, Weatherization requires all weatherization crews working in pre-1978 housing to be trained in Lead Safe Weatherization (LSW). Deferral is required when the extent and condition of lead-based paint in the house would potentially create further health and safety hazards.

Arizona's current status is as follows: all sub grantees have applied for and received Lead Renovator Firm status. All auditors (inspectors) have acquired Lead Renovator (RRP) certification as well as select crew leaders. Additionally, private contractors (excluding HVAC and Plumbers) have also applied for and received Lead Renovator Firm status. This is a requirement for contracting with the program. Private contractors have also met the requirement of having adequate RRP certified employees among their ranks. In summary, Arizona has met the EPA requirements as they now stand by April 2010 deadline. As new contractors apply to work on WX projects the EPA requirements are explained during the application process. No private contractors will be awarded work on any pre-1978 dwellings that don't meet the EPA rules.

Private contractors will be required to furnish proof of RRP and Lead Renovator Firm status as a condition of working for the WX program. The monitoring staff will routinely check that documentation that is on file at each agency verifying compliance to the EPA rules.

All weatherization crews working on pre-1978 homes must receive the 8 hour LSW training and a certified renovator must be assigned to the project and be readily available.

State Monitor/Trainers must be Certified Renovators and receive the 8 hour LSW training.

The head of household of every home to be weatherized receives the informational pamphlet: "Renovating Right". The inspector also conducts a client education segment as part of the initial inspection to assure that the occupants are fully aware of the hazards posed by Lead Based Paint exposure.

The RRP requirements of client education apply. The agencies must give the client a copy of the EPA publication: July 2011 Edition of: *The Lead-Safe Certified Guide to Renovate Right Pamphlet* and have the client sign the Sample Pre-Renovation Form located in the back of the Pamphlet to certify the client has been given the pamphlet.

That signed form must be kept in the client's file to show proof the client has received educational material about the dangers of lead paint.

The certified renovator must be physically present at the work site while signs are being posted, containment is being established, and the work area is being cleaned after the renovation to ensure that these tasks are performed correctly. Although the certified renovator is not required to be on-site at all times, while the renovation project is ongoing, a certified renovator must nonetheless regularly direct the work being performed by other workers to ensure that the work practices are being followed. When a certified renovator is not physically present at the work site, the workers must be able to contact the renovator immediately by telephone or other mechanism. In addition, the certified renovator must perform the post-renovation cleaning verification.

Mold and Moisture

Limited water damage repairs that can be addressed by weatherization workers and correction of moisture and mold creating conditions are allowed when necessary in order to weatherize the home and to ensure the long term stability and durability or the measures. Where severe Mold and Moisture issues cannot be addressed, deferral is required.

The Arizona Weatherization program is not a mold remediation program and funds should not be used to test, abate, remediate, purchase insurance, or alleviate existing mold conditions identified during the audit by the Initial Auditor/ Inspector, the work performance period or the quality control inspection. Most typically, weatherization services may need to be delayed. All local agencies must include some form of notification or disclaimer to the client upon the discovery of a mold condition and what was specifically that was done to the home that is expected to alleviate the condition and/or that the work performed should not promote new mold growth.

Major moisture problems that cannot be corrected within the scope of the program such as:

·An enclosed crawlspace or basement that has standing water for significant periods of time due to inadequate ground or surface water drainage.

·Any building with no overhangs and no gutters, exhibiting signs of major moisture problems such as blistering paint and extensive mold/mildew on the inside of the house.

The clients must be provided with a disclaimer on mold and moisture awareness.

Occupational Safety and Health Administration (OSHA) and Crew Safety

Workers must follow OSHA standards and Material Safety Data Sheets (MSDS) and take precautions to ensure the health and safety of themselves and other workers. MSDS must be posted wherever workers may be exposed to hazardous materials.

MSDS information is monitored during OEP compliance monitoring. Field monitoring performs unit file review for evidence of safe work practices. Field monitoring of in progress units will perform assessments to determine if crews are utilizing safe work practices.

OSHA 10 hour training for all workers, including contractors, assessors, and inspectors, is required. OSHA 30 hour training is required for all crew leaders and OEP Monitor/Trainers by June 30, 2012. All new employees must obtain OSHA 10 or 30 depending on their position held within 180 days of hire. This training can be obtained in various ways. The following are suggested resources.

Classroom Training.
Construction 10 hour and Construction 30

Southwest Building Science Technical Center

Online Training. OSHA has accepted the below sites for online outreach training. We suggest that you sample them before choosing.

Construction 10 hour

1. Advance Online
2. Click Safety (also Roadway, Cal-OSHA, and Spanish)
3. Summit Training Source (also Spanish version)
4. Pure Safety (also Spanish version)
5. Career Safe - (Youth and Corporate versions)
6. Redvector
7. 360Training
8. University of South Florida
9. Coastal Training Technologies
10. Turner Construction

Construction 30 hour

1. Turner Construction (also Spanish version)
2. Click Safety
3. 360Training
4. Summit Training Source
5. University of South Florida
6. Pure Safety
7. Advance Online

Information on obtaining OSHA outreach classes in construction
To find in-person training conducted by an authorized OSHA Outreach Trainer:

a. See www.OutreachTrainers.org to find outreach trainers and/or their schedules

We can send you lists of active trainers in your state – e-mail us if you want this list. Use the lists to contact trainers for information on their training plans.
b. OSHA Education Center in your area may offer it - www.osha.gov/dte/edcenters/map.html
c. The OSHA Consultation office in your area may offer it, see
www.osha.gov/dcsp/smallbusiness/consult_directory.html

Pests

If found, by the Initial Auditor/ Inspector in the Home Assessment & Client Evaluation as listed above, any pest infestation within the dwelling or in any area outside of the dwelling where service provider staff or subcontractors would have to work to perform weatherization measure is an allowable expense. Cost of pest control cannot exceeded 300 dollars and/or 20 percent of the homes budget. If the cost is great than that amount the home will be a deferral until the problem can be handled by another program or the homeowner. (Pests include, but are not limited to: fleas, roaches, rodents, etc.).

Clients must be informed of observed condition and associated risks.

Radon

Whenever site conditions permit, exposed dirt must be covered with a vapor barrier except for mobile homes without skirting or an exterior under surface that serves as a vapor barrier. In homes where radon may be present, precautions should be taken to reduce the likeliness of making radon issues worse. In extreme cases deferral may be an option.

In the State of Arizona Radon testing or remediation is not an allowable H&S measure. Clients must be provided with the EPA consumer's guide to radon.

Refrigerant

Refrigerators are allowed to be replaced as an ECM only. All reclaimed refrigerant processes must follow the Clean Air Act 1990, section 608, as amended by 40 CFR82, 5/14/93. All EPA testing protocols must apply to any testing. Clients are to be advised not to disturb refrigerant. Anyone working with refrigerant, within or employed by the WAP, must have the appropriate training, either an EPA-approved section 608 type I or universal certification. For any appliance containing refrigerant, disposal must include refrigerant reclamation.

Non-certified technicians may not attach or disconnect hoses of gauges to measure pressure within the appliances, top-off or remove refrigerant from appliances or otherwise damage the integrity of the appliance.

Smoke, Carbon Monoxide Alarms, and Fire Extinguishers

1. Weatherization agencies must install carbon monoxide (CO) alarms and smoke alarms in dwelling units where these devices are nonexistent or non-functioning.
2. CO alarms must be, UL listed, installed in accordance with the manufacturer's recommendations and located in compliance with state and local building codes and must have the capability to accurately detect and display low levels of carbon monoxide to 10 ppm and comply with other program requirements.
Local agencies must provide the occupant(s) of the dwelling unit with verbal and written information regarding the following:

a. Dangers of CO and smoke.
b. How to operate and reset the CO and smoke alarms.
c. How to read the CO alarm if there is a digital display.
d. How to respond to CO levels above 10 ppm. (Symptoms of CO poisoning and how the occupant should address the issue should it arise)
The most common symptoms of CO poisoning are headache, dizziness, weakness, nausea, vomiting, chest pain, and confusion.

If these symptoms are present shut off gas appliances, open windows and doors, get out of the home, seek medical help if needed and call a repair man.
e. How to change the batteries of CO and smoke alarms.

3. Smoke alarms must be, installed in accordance with the manufacturer's recommendations, listed in accordance with UL 217, comply with NFPA 72 and other program requirements.
4. Where multiple smoke alarms are required interconnection is required. Actuation of any one smoke alarm shall activate all of the alarms in the individual unit. Hard wiring and interconnection is not required in existing areas provided:
The alteration or repair does not cause the removal of wall or ceiling finishes exposing the structure, and
No attic, crawl or basement is available which can provide access for hard wiring and interconnection without the removal of interior finishes.
5. On average no more than two smoke alarms will be installed in home unless a permit is pulled and code compliance for the municipality the home is located in states differently
:6. If the home has an attached garage or carport a smoke and CO detector are required to be installed if none are present

7. If the home is all electric with no attached garage or carport only smoke alarms are needed

8. Providing fire extinguishers is allowed only when solid fuel is present. Fire extinguishers must be installed, according to the manufactures recommendations, be type ABC, UL listed, ≤ 10 lb and with a permanently affixed wall bracket to receive the extinguisher. The client must sign a written agreement to allow a fire extinguisher to be installed in the home within sight of the solid fuel burning heat system when standing at the unit. The agency must discuss and provide information on the use and upkeep of the extinguisher to the client.

Solid Fuel Heating (Wood Stoves, etc)

The weatherization agency must inspect the stove, chimney and flue. Combustion zone depressurization (CAZ) is required per the Energy Out West Field Guide.

Maintenance, repair, and replacement of primary indoor heating units is allowed where occupant health and safety is a concern. Maintenance and repair of secondary heating units is allowed. Replacement of secondary heating units is not allowed. This system must be operational and inspected before any other weatherization begins.

Stand Alone Electric Heaters

Defined as, but not limited to, heaters that do not have a permanent connection to electric power. Repair, replacement or installation is not allowed. Removal is recommended. Circuitry must be checked to ensure adequate power supply for existing space heaters by a licensed electrician.

Clients must be informed of the hazards associated with these types of heaters and the weatherization agency must collect a signed waiver from the client if removal is not allowed.

Space Heaters, Unvented Combustion

Unvented combustion space heaters are not considered a primary heat source. Removal is required, except as secondary heat source and where the unit conforms to ANSI Z21.11.2. Units that do not meet ANSI Z21.11.2 must be removed prior to weatherization but may remain until a replacement heating system is in place. Testing for air-free carbon monoxide (CO) is to be performed per the Energy Out West Field Guide. All units must have an ANSI Z21.11.1 label.

The client must be informed of the dangers of unvented space heaters – CO, Moisture, NO2, CO can be dangerous even if CO alarm does not sound. The replacement system must be operational and inspected using all Energy Out West Field Guide test protocols before any other weatherization begins

Space Heaters, Vented Combustion

These units will be treated as furnaces. The Energy Out West Field Guide details the testing required during an evaluation. The replacement system must be operational and inspected using all Energy Out West Field Guide test protocols before any other weatherization begins.

Spray Polyurethane Foam (SPF)

Use EPA recommendations (available online at http:www.epa.gov/dfe/pubs/projects/spf/spray_polyurethane_foam.html) when working within the conditioned space of when SPF fumes become evident within the conditioned space. When working outside the building envelope, isolate the area where foam will be applied, take precautions so that fumes will not transfer to inside conditioned space, and exhaust fumes outside the home. Testing will include checking for penetrations in the building envelope. Sensory inspection inside the home for fumes during foam application must also occur.

The client must be informed of plans to use two-part foam and the precautions that may be necessary. Workers using foam products must receive training on the proper use of these various products and understand the specification for each application type. Documentation of installers viewing an installation video or online training and verification of reading and understanding product use information must be kept at the service provider agency. MSDS sheets are mandatory for any foam product used and a thorough understanding of the temperature sensitivity of the product in use is required.

Ventilation

The State of Arizona will be implementing ASHRAE 62.2 to the fullest extent possible as required by DOE WPN 12-1. Arizona will be implementing the ASHRAE standard in the following phases.

Phase 1 will consist training which will be conducted by the Southwest Building Science Technical Center this will be completed by August 2012. Training is to include knowledge of ASHRAE 62.2, how to calculate needed ventilation rates, and installation of necessary ventilation equipment.
Phase 2 will consist of installation and technical assistance from OEP field staff. Full Implementation will be required by June 30, 2013.

Window and Door Replacement, Window Guards

Replacement, Repair, or installation is not an allowable H&S cost but may be allowed as an ECM if cost justified. If disturbing lead paint, follow LSW practices and the client must be informed on lead risks as indicated in this H&S plan when applicable. Replacement, repair or installation of doors, windows, or window guards is not an allowable H&S cost.

Window Glass is an allowable cost if it is an immediate danger to occupants if budget permits

Deferrals

Deferrals, and/or "walkaways" are processed accordingly:

a. The client shall be informed 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.

b. The service provider is required to refer the client to any alternate program such as home rehab, if one is available in the area.

c. The service provider shall clearly indicate in the client file why the dwelling was given "deferral" status.

d. The service provider must document all referrals to other programs or services in the client file.

e. The client will receive any information prescribed in the Health and Safety section that is appropriate.

Client Education

This procedure is documented by using a signed receipt from the head of household which confirms that the information was not only distributed, but also explained. This receipt is kept in the client file. Draft forms have been developed to document all information discussed and given to the clients along with application and onsite interviews to verify preexisting at risk and health concerns.

REFRIGERATOR REPLACEMENT POLICY

Subgrantees will need to follow the tables for refrigerator replacement located within their climate specific zone.

METERING REQUIREMENTS

Meter at least 10% of units replaced — It is not required to meter every existing refrigerator that is replaced. Initially, as the program gains experience, DOE will require metering on at least 10% of the units replaced. Units that cannot be located in the Association of Home Appliance Manufacturers, or other refrigerator databases, may make up all or most of the 10% requirement.

Meter at least 2 hours — The minimum metering duration required to obtain results accurate enough to make a reliable replacement decision has been debated for several years. DOE believes a two-hour minimum metering duration is an appropriate compromise.

MATERIALS

New refrigerators shall:
Not exceed the size of the replaced unit.
Have a minimum 1-year warranty.

INSTALLATION

The electrical outlet shall:
Provide the voltage specified on the ID plate of the new refrigerator.
Be properly grounded and/or protected with a properly functioning GFCI device.
Be located within reach of the refrigerator without the use of an extension cord.
Be in good condition with nothing visibly wrong (e.g., not cracked or broken, and no spark, smoke, or burn marks, etc.).
Meet refrigerator manufacturer's specifications for space and clearances.

The contractor shall:
Deliver and install the new refrigerator.
Level the unit to ensure proper operation.
Ensure that door hinges are on the appropriate side.
Instruct the customer on refrigerator operation.
Deliver warranties and operating manuals to the customer.
Set temperature controls appropriately.

DISPOSAL

The contractor shall:
Take unit out of service. Make sure the existing refrigerator, removed from the house, and **DOES NOT** find its way back onto the electric grid.
Dispose of unit in an environmentally responsible manner. All refrigerators replaced must be properly disposed of according to the environmental standards in the Clean Air Act of 1990, section 608, as amended by Final Rule 40 CFR 82, May 14, 1993.

Take unit to a de-manufacturing facility or incorporate disposal requirements in vendor contract.
Remove all packing materials from the customer's premises.

REPORTING

The sub-grantee shall record the following information for both the existing and replacement refrigerators:
Manufacturer (for years available)
Brand
Year of manufacture
Model number
Type (e.g., side-by-side, top freezer)
Database estimated kWh/yr

On metered units, the sub-grantee shall provide an estimated annual kWh usage and the duration of metered data.
Provide saving to Investment Ratio for the replacement refrigerator.

WRITTEN AUTHORIZATION
There may be cases where it is the best interest of the client that a refrigerator be installed that does not meet the requirements of the Weatherization Assistance Program Refrigerator Replacement Policy. In these cases, written authorization must be obtained from OEP.

OEP CONTRACT NO. EW-ESA-12-2182-02Y2

EXHIBIT C

FFATA (Federal Funding Accountability and Transparency Act) Reporting Requirements
Public Law 109–282; 31 U.S.C. 6101

This section must be completed for any awards greater than or equal to $25,000

Name of Entity Receiving Award	Gila County Offices of Community Services
Amount of Award	FY12 remaining unspent funding balance, to be determined
Funding Agency	State of Arizona, Governor's Office of Energy Policy
CFDA number	81.042
Award Title	Department of Energy Weatherization

Location: City Globe State AZ Congressional District 1

DUNS number 02407139

1) Is 80% or more of annual gross revenues from Federal awards? Yes [X] No [ ]

2) Do you receive $25 million or more annually from Federal awards? Yes [ ] No [X]

If you answered Yes to both questions, you must provide the following:

Names and Total Compensation of Top Five paid executives:

1#: Name		Total Compensation	
2#: Name		Total Compensation	
3#: Name		Total Compensation	
4#: Name		Total Compensation	
5#: Name		Total Compensation	