



ARKANSAS
ENERGY & ENVIRONMENT

Arkansas
Weatherization Assistance Program
State Plan
Program Year (PY)
July 1, 2023 – June 30, 2024

June 1, 2023

Mission Statement

The mission of the Arkansas Energy Office (AEO) is to promote energy efficiency, clean technology, and sustainable strategies that encourage economic development, energy security and the environmental well-being for all citizens of Arkansas.

The State Goals

The policies contained in this plan will enable Arkansas and its subgrantee network to weatherize homes of low-income Arkansans effectively, based on:

- Following priorities from the U.S. Department of Energy to serve elderly and disabled persons, households with children, and households experiencing a burden from high energy bills as well as households using a high amount of energy;
- Ensuring that only the most cost effective measures are installed on houses;
- Including client education about energy conservation; and
- Addressing health and safety issues affected by weatherization work on the house.

Executive Summary

The Arkansas Weatherization Assistance Program (WAP) State Plan for Program Year (PY) 2023 (July 1, 2023 – June 30, 2024) is derived from the state’s application to the U.S. Department of Energy (U.S. DOE) for WAP funding. These funds will provide assistance to approximately 208 households across the State.

The purpose of WAP is to install energy conservation measures in the homes of income-eligible persons (up to 200% of federal poverty level). Funds are directed toward the most cost-effective energy efficiency measures, as determined by an on-site, highly technical energy audit of the eligible building. The program helps to:

- Reduce energy consumption in Arkansas,
- Reduce the cost of energy for low-income families, and
- Address health and safety issues in the home affected by weatherization work.

Currently, five (5) non-profit subgrantees provide Weatherization services in all seventy-five (75) counties. These entities provide energy efficiency weatherization services by subcontracting work to qualified contractors or by using their own trained weatherization crews. Energy efficiency measures funded through the program include air sealing; duct sealing; insulation; heating systems evaluation, repairs and replacement. The program weatherizes all types of housing: single family homes, a category which includes duplexes, triplexes and quadplexes; manufactured housing (mobile homes); and multi-family housing, consisting of small, garden-style apartments, group homes and emergency shelters.

The state will spend DOE funds for Program Year (PY) 2023 in accordance with this plan.

Acronyms and Commonly Used Terms

AECC	Arkansas Electric Cooperative Corporation
AEO	Arkansas Energy Office
BCD	Better Community Development, Inc.
BPI	Building Performance Institute
BRAD	Black River Area Development Corporation
CAA	Community Action Agency
CADC	Central Arkansas Development Council
CEU	Continuing Education Unit
CFR	Code of Federal Regulations
CRDC	Crowley's Ridge Development Council
CSCDC	Crawford-Sebastian Community Development Council, Inc.
DHHS	U.S. Department of Health and Human Services
DOE	U.S. Department of Energy
ECOS	Energy Conservation Online System
H&S	Health & Safety
HEP	Home Energy Performance
HUD	U.S. Department of Housing & Urban Development
HVAC	Heating, Ventilation & Air Conditioning
IREC	Interstate Renewable Energy Council
JTA	Job Task Analysis
KSA	Knowledge, Skills & Abilities
LIHEAP	Low Income Home Energy Assistance Program
NASCSP	National Association for State Community Services Programs
NHPA	National Historic Preservation Act
NREL	National Renewable Energy Laboratory
PAC	Policy Advisory Council
PO	Project Officer (DOE)
PSC	Public Service Commission
PY	Program Year (DOE)
QA	Quality Assurance
QCI	Quality Control Inspector
SEP	State Energy Program
SHPO	State Historic Preservation Office
SIR	Savings-to-Investment Ratio
Subgrantee	A non-profit organization receiving funds from AEO to provide weatherization services
SWS	Standard Work Specifications
T&TA	Training and Technical Assistance
USDA	U.S. Department of Agriculture
WAP	Weatherization Assistance Program
WPN	Weatherization Program Notice (DOE)

Disclaimer

NOTE: The Department of Energy (DOE), after reviewing Arkansas’s application to approve Program Year (PY) 2023 funding, may require changes be made to the information contained in this state plan.

Budget Information

Subgrantees	Number of Units	Budgeted Amounts
Better Community Development, Inc. (BCD)	45	\$437,116.00
Black River Area Development Corporation (BRAD)	17	\$239,745.00
Central Arkansas Development Council (CADC)	54	\$773,966.00
Crawford-Sebastian Community Development Council (CSCDC)	50	\$643,039.00
Crowley’s Ridge Development Council (CRDC)	42	\$484,086.00
Sub Total	208	\$2,577,952.00

Arkansas Energy Office (AEO)	Budgeted Amounts
AEO Administration	\$202,230.00
AEO Training and Technical Assistance (includes statewide training for network)	\$209,303.00
Sub Total	\$411,533.00

Arkansas DOE Allocation - Program Year 2023 (July 1, 2023 – June 30, 2024)	Budgeted Amounts
Subgrantees	\$2,577,952.00
AEO	\$411,533.00
Total	\$2,989,485.00

¹ All administrative expenses must be cost allocated among all grants (2CFR200.413).

This year all subgrantees will have access to three (3) grants:

1. DOE annual formula/block grant
2. LIHEAP annual formula/block grant
3. DOE infrastructure award

Combined, all three (3) grants will provide more administrative funds than available in recent years.

Policy Advisory Council Members

As required by federal regulations, a Policy Advisory Council (PAC) assists in the development and implementation of the Weatherization Assistance Program (WAP) and advises the state on a range of issues relating to the WAP. The PAC is broadly representative of organizations that provide services to low-income persons in Arkansas.

Arkansas Electric Cooperative Corporation--Mitch Ross
Arkansas Energy Office--Mitchell Simpson (ex officio)
Arkansas Historic Preservation--George Burson
Entergy--Heather Hendrickson
Entergy--T Denice Jeter
Epidemiologist--Quinyatta Mumford
HUD--David Blick
LIHEAP--Iris Pennington
Public Service Commission—Wally Nixon
Summit Utilities--Kirk Pierce
U.S. Department of Agriculture, Rural Development—Cheryl Ivy
Weatherization Provider--Darryl Swinton

V.1 Eligibility

V.1.1 Approach to Determining Client Eligibility

AEO understands that every dwelling unit weatherized must meet both the client eligibility and the building eligibility requirements. The dwelling unit is eligible for weatherization if the family unit occupying it:

1. has income in relation to household size which is at or below 200 percent of the federal poverty level, as published in Weatherization Program Notice (WPN) 23-3; or
 2. has a member who has received cash assistance payments at any time during the preceding twelve (12) months under Titles IV or XVI of the Social Security Act, Pub. L. No. 88-452, 42 U.S.C. § 2701 et seq. or applicable state or local law; or
 3. is eligible for assistance under the Low Income Home Energy Assistance Act of 1981 (LIHEAP); or
 4. has been certified as meeting the income requirements of a U.S. Housing and Urban Development (HUD) means-tested program and proof is provided by applicant.
- AEO acknowledges that all subgrantees must have on file proof of income eligibility for each household served or proof of categorical eligibility (see #2, 3, and 4 above). For each client waiting for services, subgrantees must re-certify eligibility every twelve months after initial determination of eligibility until selected for weatherization. The application eligibility expires twelve (12) months from certification date if work on dwelling unit (energy audit) has not been initiated.

The basis for household eligibility is WPN 23-3, containing current poverty income guidelines and definition of income. Arkansas will use 200% of poverty level and categorical eligibility based on Titles IV and XVI of the Social Security Act, LIHEAP, and HUD means-tested programs as described in the preceding section.

VERIFICATION OF IDENTITY

The applicant or head of household must provide the subgrantee valid proof of identity before an application can be approved for weatherization services. Subgrantees must keep copies of identification documents in the case record. Acceptable proof includes a readable copy of any valid document that reasonably establishes identify, such as:

- A current Driver's license or ID card issued by a State or outlying possession of the United States if it contains: photograph, name, date of birth, gender, height, eye color, and address;
- ID card issued by federal, state, or local government agencies or entities;
- Birth certificate;
- School identification card with photograph;
- Identification card for health benefits or other assistance;
- Voter registration card;
- U.S. Military card or draft card;
- Military dependent's ID card; or
- Any type of paycheck stubs containing the name and address of the person.

Social Security Number Verification

Section 205(c)(2)(C)(i) of the Social Security Act authorizes states to require Social Security Numbers (SSN) as a condition of eligibility for use in verifying the identity of individual applicants and their household members.

Subgrantees may use the Social Security card or any other government or school document that includes the social security number for verification.

Applicants may get Social Security verification by visiting <http://www.ssa.gov/myaccount/>. Subgrantees should tell any applicant that is eligible for a SSN, but does not have one, to apply for one at <https://www.ssa.gov/forms/>.

How to Identify Valid social security numbers

- Number is 9 digits;
- Digits are not all zeros (000-00-0000);
- Digits are unique;
- Do not begin with "000", "666", or "900" – "999";
- Do not have double zero "00" as the middle number;
- Do not end with four zeros "0000"

Process for ensuring qualified aliens are eligible for weatherization benefits

U.S. DOE directs grantees to guidance provided by U.S. Department of Health and Human Services at <http://www.acf.hhs.gov/ocs/resource/liheapimhhsguidanceontheuseofsocialsecuritynumbersssnsandcitizenshipstatusverification>.

Subgrantees will:

- Consider the income of all persons residing in the dwelling unit when determining income eligibility for weatherization services, regardless of eligibility status of each individual person;
- Allow ineligible persons who reside in the household to apply for weatherization services on behalf of eligible minor children;
- Identify a legal resident noncitizen as an individual, who, at the time of application for a federal public benefit:
 - is a “Qualified Alien” according to 8 U.S. Code § 641(b);
 - is lawfully admitted for permanent residence under the Immigration and Nationality Act, or is present in the U.S. under Sections 203(a)(7), 207, 208, 212(d)(5), or 243(h) of the Immigration and Nationality Act;
 - is a Cuban or Haitian entrant, as defined in Section 501(e) of the Refugee Education Assistance Act of 1980; or
 - is battered or subjected to extreme cruelty in the United States.

The household is potentially eligible if there is at least one citizen or legal resident noncitizen in the household.

V.1.2 Approach to Determining Building Eligibility

Dwelling units are eligible for weatherization if occupied by an eligible family unit.

The Arkansas WAP application form (WAP04) asks if the dwelling unit is owned or rented.

If owned by the applicant/family unit, proof of ownership is required in the form of a deed, quick claim deed, will, or documentation from the county assessor's office. Subgrantees are often able to view county assessor's files online and obtain a printout showing ownership to ease the burden on the applicant of supplying proof of ownership.

If the applicant/family unit lives in rental property, the landlord's name and contact information is required on the application. Then the tenant or subgrantee obtains written permission from the landlord to perform weatherization work on the property; this permission becomes part of the client file.

In buildings with more than one dwelling unit, at least fifty percent (50%) of tenant households must be income eligible for weatherization services. For multi-family rental property, any vacant units that are weatherized must have the expectation of being occupied within 180 days of weatherization services being performed. Not more than fifty percent (50%) of units may be vacant and, in the case of fifty percent (50%) occupancy, all occupied units must have income eligible households residing therein.

In Arkansas, a dwelling unit may not receive weatherization services if it was previously weatherized less than fifteen (15) years before, if the previous weatherization was completed using federal funds. The state (AEO) does not have any records prior to 2015. Some WAP providers have older databases or paper files which are options for searching for previously weatherized homes. If not available to a subgrantee, then the subgrantee is not required to search old records. Any home weatherized before July 1, 2008 is eligible to be re-weatherized in this program year.

In order to ensure that re-weatherization does not occur within the fifteen (15) year prohibited time period, Arkansas requires that subgrantees:

1. Search weatherization records by address as well as applicant/family name.
2. Search the older data base, used from approximately 2004 up to the implementation of ECOS in 2015, even though legacy data was entered in ECOS.
3. Search any existing paper records, if access is not available to the older data base.
4. Visually inspect the home prior to completing an energy audit, for signs that previous weatherization could have occurred, such as the presence of new windows and doors; new HVAC equipment; extensive interior caulking; existing insulation (check date on attic or floor insulation certificate) or the presence of materials and equipment brands that are often used by the agency assigned to that particular region; e.g., a particular brand of vented space heaters, such as Rinnai. These or any other signs of previous weatherization will be discussed with the applicant/household.
5. Ask the applicant, with this requirement expecting to yield the most unreliable results. The weatherization application asks if the dwelling unit was previously weatherized, and previous weatherization is discussed with the applicant at the time s/he applies.

Arkansas expects to re-weatherize fewer than fifteen (15) homes during program year PY 2023.

Building Eligibility – Housing Types:

Housing types eligible for weatherization include owner-occupied and renter-occupied single-family, site-built homes, manufactured (mobile) homes, and multi-family buildings. Single family dwelling units include buildings with 2, 3, or 4 units.

Multi-family dwelling units are defined as having five (5) or more individually heated/cooled units in each building, which may either be a single building or a complex of buildings. Arkansas reports any complex comprised of duplexes, triplexes, and/or quadplexes as single family units although the weatherization is completed by our multi-family WAP provider, Better Community Development (BCD).

Non-traditional dwelling units, such as shelters, apartments over businesses, or camping trailers, require AEO approval prior to weatherization. AEO will ensure that requirements for eligibility are met prior to granting approval or reach out to the DOE Project Officer for discussion and approval.

For campers and trailers to be considered stationary and, therefore, eligible for weatherization, the following criteria must be met:

1. Axles have been removed.
2. Residential electric and water utility services have been established.
3. Mail service has been established using street address (PO Box does not qualify).

State Historic Preservation Compliance (SHPO)

Arkansas will use the guidelines in its Historic Preservation Programmatic Agreement (PA) to comply with restrictions concerning weatherization. Dwelling units will either be exempt from restrictions based on age (less than 50 (50) years old) or types of weatherization measures installed. Dwelling units not exempt must be submitted for SHPO review.

Rental Units/Single-family

Arkansas's rental plan, as follows, protects renters' rights as specified in 10 CFR 440.22 (b)(3), (c)-(e).

- At the time of application, the subgrantee must obtain written permission from the owner/agent of the rental unit agreeing to weatherization of the property; this permission must be retained in the client file.
- The benefits of weatherization assistance are expected to accrue primarily to low-income tenants.
- No undue or excessive enhancement will occur to the value of dwelling units as a result of weatherization. Each energy audit of a rental unit will be reviewed by the subgrantee weatherization director to ensure that all measures authorized by the energy audit software, Energy Conservation Online System (ECOS), and all Health & Safety measures are provided in compliance with DOE requirements. Any questions in this regard will be discussed with AEO prior to the start of weatherization. (ECOS is the DOE approved single-family energy audit software used in Arkansas.)
- Not less than sixty-six percent (66%) (50 percent for duplexes and four-unit buildings) of the households in a building must be income-eligible for weatherization services.
- The subgrantee will obtain and place in the client file an agreement signed by the landlord (or authorized agent of the landlord) stating that, for a minimum of twelve (12) months after weatherization work has been completed, the rent will not be increased based on the increased value of dwelling units due solely to weatherization.
- Subgrantees will provide copies of the signed Landlord Agreements to the tenants to ensure their understanding and provide an avenue for tenant complaints.
- Other Considerations:
 - In the event of a dispute between the tenant and property owner regarding a rent increase, the subgrantee will attempt to resolve the dispute; if that fails, the tenant will be referred to legal aid by the subgrantee.
 - Units being weatherized must be occupied by a qualified household; the only exception is that an applicant household may temporarily move out while work is ongoing, if the temporary nature of the move is documented and re-occupation of the house is expected once work is completed.
 - Arkansas does not seek property owner agreements for placement of liens nor does it use other contractual restrictions.
 - WAP does not accept financial participation in weatherization costs from any single-family dwelling unit owner.

Rental Units/Multi-family

Multi-family weatherization has consistently represented less than twenty percent (20%) of total weatherization production in Arkansas. In PY 2022, there was no weatherization of buildings with five (5) or more units.

During the selection process for a multi-family project, the energy auditor will complete a walk-through of the property and note the potential for energy savings.

WAP does encourage or require the owner of multi-family complexes to contribute to the Weatherization project. In particular, owners are encouraged to utilize available resources, such as maintenance funds or HUD funds, to address measures that do not receive a savings-to-investment ratio (SIR) of 1.0 or greater and to ensure that the benefits of weatherization accrue mainly to the tenants.

Arkansas encounters quite a few multi-family complexes comprised of buildings with 2, 3, or 4 dwelling units in each building. For these projects, the subgrantee uses ECOS.

For projects with buildings of five (5) or more units, or buildings of any size that are centrally heated and cooled (e.g., shelters), AEO contracts with a qualified engineering firm to complete an energy audit. The energy audit is then submitted to DOE for approval prior to beginning weatherization work.

Better Community Development, Inc. (BCD) receives funds set aside for multi-family weatherization. BCD completes projects throughout the state. A partnership with USDA Rural Development has the goal of weatherizing multi-family complexes throughout Arkansas using a braided service approach where both WAP and Rural Development contribute funds to weatherize a complex.

ARKANSAS DEFERRAL POLICY

The decision to defer work in a dwelling is difficult but necessary in some cases. There are conditions and situations under which a subgrantee must not or may choose not to weatherize an otherwise eligible dwelling unit. Information for making this determination may become evident during the application process, during the initial inspection process, during the energy audit, or after weatherization work has begun.

Following Are Reasons for Deferral

A. Beyond the Scope:

There are reasons to defer a home for being “beyond the scope” of the program. The over-arching reason is to make repairs that are necessary in order to enable the installation of energy efficiency or health & safety measures as part of Weatherization. The cost and allowability of the repair determines if it is beyond the scope of the Weatherization program. For instance, if a repair cannot be entered under Incidental Repairs in the energy audit software and still obtain an SIR for the whole job, the repair is beyond the scope of the program.

This does not mean that weatherization can never be completed, but that work must be postponed until the problems can be resolved with other sources of help. Note that subgrantees are expected to pursue reasonable options on behalf of the client, including referrals, and to use good judgment in dealing with difficult situations.

Following are examples:

- 1) A major roof leak prevents the installation of attic insulation because wet insulation would not be an effective energy efficiency measure. Only minor roof leaks can be included as Incidental Repair in a weatherization job, so the house must be deferred until the leak is fixed.
- 2) A floor is structurally unsound and prevents air sealing of the floor to install floor insulation. If the scope of the floor repair prevents it from being entered as an Incidental Repair, then the house must be deferred until the floor is fixed.
- 3) A house is structurally unsound and requires major repairs; such a house must be referred to other programs that have funding for housing rehab.

B. Health & Safety:

Under the Arkansas WAP program, there are reasons to defer a home for Health & Safety reasons. AEO has developed Health & Safety guidance to assist Weatherization staff in the decision making process.

The Health and Safety Plan provides guidance on how to perform required mechanical, visual, and sensory inspections. When WAP funding cannot alleviate Health & Safety hazards due to their being beyond the scope of the Weatherization program to fix, prior to the installation of Energy Conservation Measures (ECM), the home must be deferred. Refer to Health & Safety Plan (Section 7.V.B.) for additional, specific guidance on reasons for deferral, and other special situations.

Deferrals may include but are not limited to the following:

- Appliances -- a cook stove, replacement of which is beyond the scope of Weatherization, is deemed a health and safety hazard (i.e., fire hazard or excess carbon monoxide) and the hazard cannot be resolved immediately. The Client must be informed and the home temporarily deferred to allow the Client an opportunity to bring the appliance into compliance.
- Asbestos: Asbestos can be found in the siding, vermiculite (insulation), and pipe insulation. When a home has asbestos siding, insulating walls must be accomplished from the inside of the home so as not to disturb the asbestos siding. Further, asbestos in vermiculite may be encapsulated and other asbestos may be removed by an AHERA certified professional. However, these ways to deal with the presence of asbestos may be cost prohibitive, requiring deferral.
- Biologicals & Unsanitary Conditions -- Visual and sensory inspection should be performed to detect health and safety hazards such as: the presence of bacteria, viruses, mold and mildew, raw sewage, rotting wood, and garbage. When one of these substances is present, it may create a serious risk to occupants or weatherization crews/contractors and the home must be deferred.

C. Withholding of Weatherization Services - weatherization services may be withheld under the following conditions that are beyond allowable deferral:

- A dwelling unit is vacant: however, it is allowable for a resident to move out during performance of weatherization work; also see allowable, eligible occupancy rate and standard for time period that the home must be re-occupied.
- A dwelling unit is for sale.
- A dwelling unit is scheduled for demolition.
- The house has been condemned.
- A dwelling unit is uninhabitable (for example, such as a burned out apartment).
- There are illegal drugs or illegal activities occurring on the premises.
- Residents are verbally or physically abusive to weatherization staff/contractors.
- Prior to the beginning of the energy audit assessment, WAP staff must ensure that the household has been determined eligible within the past twelve months; if required redetermination of eligibility results in the household being ineligible, based on income or other criteria, the applicant must be denied.
- The building structure or its mechanical systems, including electrical and plumbing, are in such a state of disrepair that the conditions cannot be resolved with known resources.
- Pets are threatening or not restrained.

D. Deferral conditions include any of the following:

- A dwelling unit is found to have serious structural problems that would make weatherization impossible or impractical (see requirement to refer to a rehab program).
- A dwelling unit is deemed by the auditor to pose a threat to the health or safety of the crew or subcontractor, based on allowable deferral reasons.
- A mobile home is improperly installed (e.g., inadequate supports; improper/no grounding).
- When there are minor children in the dwelling but no adult is present, weatherization staff and contractors must not enter the dwelling (this situation requires communication with the applicant in an attempt to resolve).
- The applicant is uncooperative with the Weatherization staff, either in demanding that certain work be done and refusing higher priority work which is needed; or by being unreasonable in allowing access to the unit. An attempt should have been made to explain the program and the benefits of the work but failing understanding on the part of the resident, staff should suspend work and contact the Arkansas Energy Office to discuss.
- There is an infestation (e.g., rats, bats, roaches or other insects, reptiles, or other wild animals or vermin).
- There are health or safety hazards that must be corrected before weatherization services may begin, including but not limited to:
 - The presence of animal feces and/or other excrement,
 - Sewage present on the property under or near the dwelling unit,
 - Hazardous electrical wiring, which requires an evaluation by a licensed electrician, or
 - Unvented combustion appliances, evaluation of which must determine if such venting is within the scope of WAP.
- The dwelling unit or parts thereof are being remodeled and weatherization work is not coordinated with a housing rehabilitation program; deferral is required until such work in progress is completed.
- Any resident has known health conditions that prohibit the installation of insulation and other weatherization materials; deferral is required until resident consults with health professionals.
- Electrical, heating, plumbing, or other equipment has been “red tagged” by local or state building officials or utilities.
- Moisture and mold problems are so extensive as to be not resolvable under existing health and safety measures and within allowable incidental repairs.
- Dangerous conditions exist due to high carbon monoxide levels in combustion appliances, and cannot be resolved under existing health and safety measures; weatherization staff would have to ensure that resident contacted appropriate authorities.
- The extent and condition of lead-based paint in the house would potentially create further health and safety hazards if beyond the scope of testing and limited containment required for weatherization work to proceed.
- In the judgment of the energy auditor, any condition exists which may endanger the health and/or safety of weatherization staff or contractors, the work should not proceed until the condition is corrected.
- Knob-and-tube Wiring (KTB) is permissible under DOE WAP; however, Arkansas Building Code does not allow the installation of insulation over KTB.

E. Procedure for Deferral:

- Written notes by weatherization staff assessing the home.
- Photographs clearly showing the condition(s) of the home causing deferral.
- The Deferral form (WAP 35) ensuring that all information is discussed with the client and provided in writing with both the subgrantee's and the weatherization applicant's signatures. This form is placed in the client file. The WAP 35 includes:
 - Communication with client about the deferral process and reasons for deferral, including why the needed repairs prevent weatherization from continuing;
 - Attachment of photographs; also notes (if all information not captured on form);
 - Referral made to known resources for assistance;
 - Client's wishes regarding follow-up with the landlord, if applicable, discussed;
 - An appeals form given to client;
 - Form signed by client and weatherization staff.
- Deferral tracking form completed and sent to AEO monthly with invoice.
- Both the deferral form and the deferral tracking form are also uploaded in ECOS as part of the application.

WEATHERIZATION READINESS FUND (WRF) PLAN

Arkansas will continue its WRF program with DOE and LIHEAP funds provided for the purpose of addressing the repair needs of homes when such repairs are outside the scope of weatherization and prevent the home from being weatherized until they are completed. WRF can only be used if available funds are adequate to completely resolve all issues that prevent weatherization. Funds may be braided in order to complete necessary repairs.

A maximum of \$8,250 is allowable to spend on one home for WRF repairs per funding source.

To be eligible for WRF services, a home must:

- Be eligible and currently waiting for or undergoing Weatherization services²;
- Be deferred for weatherization until repairs are complete;
- Require repair services that are beyond the scope of weatherization and within the scope of WRF services;
- Be weatherized using the same funding source used for WRF.

Allowable repairs: the following, if the condition of the house prevents weatherization:

Exterior:

- Roof repair;
- Wall repair;
- Foundation or subspace repair;
- Resolution of drainage issues: allowable work includes landscaping; gutter repair, replacement, or installation; grading in close proximity to the perimeter of the foundation; and

² If repairs that are beyond the scope of Weatherization are discovered during Weatherization, usually during the Energy Audit but occasionally when work has begun, the home must technically be deferred to justify the use of WRF for repairs. Once completed, Weatherization can be continued.

- Roof replacement: up to a maximum of one-half of the roof may be replaced with a single funding source (LIHEAP or DOE).

Interior:

- Ceiling repair;
- Floor repair;
- Plumbing repairs; and
- Electrical repairs: funds must be leveraged from other source(s) to replace knob-and-tube wiring.

Health & safety: clean-up/remediation of:

- Lead paint;
- Asbestos, confirmed or suspected, including vermiculite;
- Mold and moisture;
- Insect/rodent infestation and other animal nesting;
- Cleanup of standing sewage after plumbing repairs.

Other repairs may be approved by AEO upon request and consideration of documentation submitted by a subgrantee.

Management of WRF:

- AEO prior approval is required on all WRF work orders before subgrantees proceed with work and expenses accrue. All requests for prior approval for WRF work orders should be submitted to the technical coordinator and program manager. Approvals will be based on a description, justification, and estimated costs of the proposed measure(s).
- The maximum allowable cost will be \$8,250 per unit, per funding source, receiving WRF services.
- It is permissible to leverage or braid DOE and LIHEAP funds with other sources such as HUD, USDA Rural Development, or non-federal sources to make a building weatherization ready. It is also permissible to braid DOE WRF funds with LIHEAP WRF funds. To “braid” means to use different funding sources on the same job.
- For homes where both DOE and LIHEAP Funds are used for repairs (WRF), Weatherization costs should also be assigned to DOE and LIHEAP.
- It is allowable to use weatherization contractors, contractors working in other housing programs operated by the subgrantee, or contractors procured for each home served.
- AEO will monitor by physical inspection and review of case files at the same percentages as Weatherization monitoring.
- Reimbursement will be based on monthly invoicing with supporting documentation; WRF is part of ECOS.
- Client satisfaction and weatherization readiness will be documented by the subgrantee before payment of contractors.

WRF reporting

Subgrantee reporting to AEO:

A listing of dwelling units made weatherization ready with WRF funds, and for each unit:

- Year Built;

- Housing Type (site-built single family, manufactured housing, multi-family);
- Repairs made and the cost of each repair by funding source.
- Total expenditures on each unit by funding source.

AEO reporting to DOE and LIHEAP:

- AEO will complete the T&TA, Monitoring, and Leveraging Report as required, to include WRF expenditures.
- WRF Expenditures will be reported to LIHEAP on quarterly reports and on the annual Household Data report.

V.1.3 Definition of Children

Definition of children (below age): 19

V.1.4 Approach to Tribal Organizations

Arkansas has no identified Native American tribes. Low-income Native Americans will receive the same weatherization services provided to other low-income persons in Arkansas.

V.2 Selection of Areas to Be Served

Arkansas has consistently served the entire state, seventy-five (75) counties in all, with the current configuration being five (5) subgrantees with service areas ranging from the largest with twenty-one (21) counties to the smallest with twelve (12) counties. At the beginning of PY 2022, CAPCA terminated its Weatherization program and its three (3) county territory is being temporarily served by CRDC. A Request for Qualifications (RFQ) to serve CAPCA's former territory will be issued during PY 2023. Since the ARRA period, selection of subgrantees has been through this competitive process, accepting submissions from non-profit CBOs and local governments.

Multi-family weatherization is provided statewide by BCD.

Arkansas allocates funds at the county level and aggregates amounts allocated to the counties in each service area. The methodology uses occurrence of the following in a weighted formula:

- Population below poverty level, given a weight of eighty percent (80%)
- Annual average heating and cooling degree days, given a weight of ten percent (10%)
- Percentage of houses built prior to 1990, given a weight of ten percent (10%)

V.3 Priorities

Each applicant is assigned priority points at the time of eligibility determination, as follows:

1. At least one member in the household is elderly (age 60 or older). (1 point)
2. At least one member in the household is a person with disabilities (receives disability benefits). (1 point)
3. At least one member in the household is a child (under the age of 19). (1 point)
4. The household has a high energy burden (spending at least 6.9% of total income on heating and cooling costs). (1 point) Source: for energy burden metrics see the “Background Data and Statistics on Low-Income Energy Use and Burden for the Weatherization Assistance Program: Update for Fiscal Year 2020” (ORNL/TM-2020/1566). This report will be updated as new information is available from DOE Better Buildings/Clean Energy for Low-Income Communities Accelerator fact sheet.
5. The household is a high energy user (spending 10 cents or more per square foot on electricity). (1 point) Source: Entergy Solutions “You have the power to lower your Entergy bill” brochure.

AEO is considering assigning applicants with a high energy burden more than one (1) point. This change will be discussed with stakeholders before a decision is made.

AEO is targeting people "who have been historically underserved, marginalized, and adversely affected by persistent poverty and inequality" by identifying communities which by federal definition are disadvantaged or underserved and encouraging subgrantees to focus outreach in these areas. This will be a future topic during Grants Guidance training or the Arkansas Weatherization annual conference.

Subgrantees have a priority list for each county in their service area in the ECOS software.

- AEO has approved the use of separate priority lists by county to give subgrantees flexibility when scheduling work crews and assigning contractors; this policy minimizes travel distances and maximizes available work hours and worker efficiency;
- A subgrantee serving two (2) or more counties may not work exclusively in one (1) county for more than one (1) month;
- The subgrantee is required to serve each county in proportion to the number of units planned for that county and to prioritize counties based on the number of priority points assigned to top applicants on each county list;
- The selection of a county in which to provide weatherization work exclusively for a coming month should be primarily based on where the client resides who has the highest number of points among all counties; and
- Priority points being equal, the age of the application is considered when selecting the next house for weatherization.

Subgrantees print and keep priority lists each month to document that these policies were followed. Each county list should contain explanatory notes, e.g., attempts to contact clients and other information pertinent to demonstrating that an eligible candidate with the highest number of priority points was chosen next to receive weatherization services.

Should there be any discrepancies in the priority points calculated by ECOS, the subgrantee has a responsibility to correct the priority points for use in selecting the next homes to weatherize.

V.4 Climatic Conditions

Total heating degree-days in Arkansas range from a high of 5,477 in the northcentral part of the state to a low of 4,987 in southeastern Arkansas. The average heating-degree-days are thirty (30) year averages that have been supplied by the National Oceanic and Atmospheric Administration (NOAA). In counties without reporting stations and in counties without complete data for thirty (30) years, data from nearby stations was utilized.

Black River Area Development Council (NE)	5,477
Central Arkansas Development Council (SW)	4,999
Crowley's Ridge Development Council (NE and central)	5,294
Crawford-Sebastian Community Development Council (NW)	5,298
Better Community Development (SE)	5,198

Following is a description of how weather data is used in Arkansas's energy audit software, Energy Conservation Online System (ECOS):

Methodology for calculating heat loss -- ECOS uses a balance point temperature when calculating energy usage/loss for building segments. DOE requires that when using this methodology, you utilize 68 degrees for heating and 78 degrees for cooling NOAA weather data is imported into ECOS from each weather station in Arkansas. The weather data is a twenty-year average which is standard practice for DOE protocol and includes all eight compass points and horizontal surfaces (future solar panel modeling potential).

Calculating demand -- When the model is run, for every hour of the day ECOS knows what the exterior temperature is based on the weather data. The demand is calculated on how much energy is needed to maintain a 68-degree heating and 78 degree cooling internal temperature. So, the hotter it is outside, the more demand is needed to meet the cooling balance point temperature. For example, if it is 98 degrees outside, this equates to a 20-degree delta T that must be met to reduce the cooling temperature to 78 degrees resulting in more loss of BTUs or usage and more energy (fuel) needed to meet the demand.

Calculating energy loss -- Segments or condition codes are assigned an R-value which was reviewed by DOE. When a user selects to "model" a building segment they enter the orientation (N/E/S/W) and select a condition code. ECOS will calculate the energy usage in BTUs based on the condition code and orientation to determine how much energy is needed to meet the demand for that segment over a period of time (one year). If the user selects to insulate that building segment (increase the R-value), ECOS will run the same calculation over the same wall segment and orientation. The result is how much energy will be needed to meet the demand for that wall segment.

This results in the following formula: Pre Energy Usage (in BTUs) – Post Energy Usage (in BTUs) = Estimated Savings (in BTUs) annually. Then the savings in BTUs is converted to units based on the primary fuel type. So, if it is natural gas, it is converted to therms, electricity to KWH, etc. This results in annual savings of units. Then it is a simple calculation to get the SIR. Depending on the life expectancy of the task, the annual savings are multiplied by the life expectancy then divided by the cost to get the SIR.

$(\text{Annual Savings} \times \text{Life expectancy} / \text{Task Cost}) = \text{Task SIR}$.

V.5 Type of Weatherization Work to Be Done

V.5.1 Technical Guides and Materials

Arkansas uses the following: "Retrofitting Arkansas Single Family Standard Work Specifications - Aligned Field Guide" and Subgrantee Operations Manual.

The Subgrantee Operations Manual is a living document which codifies all program requirements, procedures and standards. On a regular basis, AEO will update the manual incorporating new language from DOE's WPNs and/or new state policies. When updates are made, the manual will reflect the appropriate effective dates of changed policies.

The Subgrantee Operations Manual is maintained on the AEO website.

Electronic Link <https://www.adeg.state.ar.us/energy/initiatives/pdfs/subgrantee-operations-manual.pdf>

Scroll to bottom of AEO page and click on "WAP Forms & Documents"

“Retrofitting Arkansas Standard Work Specification-Aligned Field Guide” is maintained on the AEO website and ECOS.

Scroll to bottom of AEO page and click on “WAP Forms & Documents”

Electronic Link on AEO Website <https://www.adeq.state.ar.us/energy/initiatives/pdfs/ar-sws-field-guide.pdf>

On any ECOS screen or page, scroll to the bottom, and click on “Standard Work Specifications” link on the lower right hand corner.

in ECOS under the *Forms, Program Forms* tab.

Documenting the Process for Distribution

Once revised versions of the Subgrantee Operations Manual or technical guides are issued, AEO will send a copy to each subgrantee via certified mail. Each subgrantee must sign for delivery. The US Postal Service will return the signature cards to AEO, providing written verification that each subgrantee received a copy.

Subgrantees require weatherization contractors to sign an acknowledgement form, verifying that they have received a copy of the “Retrofitting Arkansas Single Family Standard Work Specifications-Aligned File Guide” (ASFSWS) and the “Retrofitting Arkansas Manufactured Housing Standard Work Specifications-Aligned File Guide” (AMHSWS) at the time of their procurement to do weatherization work. Subgrantees must have written documentation showing each contractor has received both SWSs. During monitoring visits, AEO program monitors will check for compliance.

Statements of Assurances

AEO ensures that all subgrantee agreements and subgrantee vendor contracts will contain language which clearly specifies that all work performed will be of a quality outlined in WPN 22-4, Section 1.

The language clearly requires and documents the following:

- (1) that subgrantees and their contractors understand that work quality standards must align with the SWS,
- (2) that each subgrantee’s direct hire is aware of these standards, and
- (3) that they all must sign off that they have received a copy of both SWS technical guides.

AEO ensures that all work will be performed in accordance with our DOE-approved Energy Audit procedures (DOE memo dated 3/29/22) and all materials will be approved materials specified in 10 CFR 440, Appendix A, and in the above referenced memo:

Table 3 - Special Materials/Audit Procedures Approvals	
Item	Comments
Light Emitting Diode (LED) Lighting	Approved 12/18/2014
Updated Lifetimes (See attachment 1)	Approved by this Memo

Weatherization Assistance Program is approved to use the following life expectancies for measure evaluation when using the ECOS energy audit tool.

Measures Considered	Life Expectancy
Insulation Cellulose 3" open R-9	30
Insulate Cellulose Open 4" R-13	30
Insulate Cellulose Open 6" R-19	30
Insulate Cellulose Open 8" R-25	30
Insulate Cellulose Open 10" R-30	30
Insulate Cellulose Open 12" R-38	30
Insulate Cellulose Wall	30
Insulate Cellulose Floor	30
Insulate Fiberglass Blown MH Dome Roof/Top	30
Insulate Fiberglass Blown MH Pitched Roof/Ext	30
Insulate Fiberglass Blown MH Roof/Inside	30
Insulate Fiberglass Blown MH Walls	30
Dense pack Floor with open blow to R-38	30
Dense pack floor with open blow to R-49	30

Language in Subgrantee Agreement

The following language will be inserted into subgrantee and contractor agreements:

It is the signatory's responsibility to perform all weatherization and health & safety work to the specifications outlined in WPN 22-4 using DOE Standard Work Specifications (SWS) as found in Arkansas Single Family Standard Work Specifications and the Arkansas Manufactured Housing Standard Work Specifications (ASFWS and AMHSWS). Work quality standards that align with the SWS must be followed for all work performed on client homes. The signatory acknowledges receipt of the above referenced documents. All contractors of subgrantees must be assigned the same contractual responsibility and acknowledge receipt of the referenced documents.

The signatory must ensure that every completed home is inspected for compliance with these standards and require reworks when the work is judged not satisfactory by the SWS standards.

Describe Mechanism Used

The mechanisms AEO uses to verify that subgrantees understand and agree to expectations of weatherization work is the subgrantee's signature on the grant agreement. In addition, third party QCI inspections review weatherization work vis-a-vis the SWS technical guides.

Arkansas will follow the restrictions for the listed allowable activities and historic preservation in the National Environmental Protection Act (NEPA) determination. Subgrantees will adhere to the Historic Preservation Programmatic Agreement (PA). Should Arkansas desire to perform activities not included in their NEPA determination, the State will submit an Environmental Questionnaire (EQ-1) to request a NEPA review.

V.5.2 Energy Audit Procedures

Audit Procedures and Dates Most Recently Approved by DOE

Arkansas is committed to submitting energy audit approval requests to DOE every five (5) years, with the understanding that sufficient lead time (minimum 6 months) is required for the approval process.

DOE approved ECOS for continued use in Arkansas on March 29, 2022.

Arkansas intends to submit updated energy audit procedures before July 1, 2023.

① Audit Procedure	Single-Family
Audit Name	ECOS
Approval Date	03/29/2022
Audit Procedure	Manufactured Housing
Audit Name	ECOS
Approval Date	03/29/2022
Audit Procedure	Multi-Family
Audit Name	N/A
Approval Date	N/A

V.5.3 Final Inspection

AEO's Final Inspection & Assurance Statement

AEO requires that every DOE WAP unit reported as a “completed unit” has all weatherization measures installed in a workmanlike manner and in accordance with the priority determined by the energy audit procedures as required by 10 CFR 440.21 and undergoes a final inspection by a certified Quality Control Inspector (QCI), ensuring that all work meets the minimum specifications outlined in the Standard Work Specifications developed by DOE/NREL.

In accordance with WPN 22-4:

- Every client file will have a WAP 08 form that certifies that the unit had a final inspection and that all work met the required standards. The form will be signed by a certified QCI. Signatures will be accepted to demonstrate compliance. If a unit, inspected by the subgrantee QCI, is also inspected by the state, two (2) certification forms will be available in the client file - one for each inspection.
- Final inspection information is entered in ECOS and a percentage reviewed as part of desk monitoring.
- The QCI includes an assessment of the original audit to confirm that the measures called for on the work order are appropriate and compliant with the state audit procedures and protocols approved by DOE and that there are no “missed measures” which should have been considered.

The Use of Quality Control Inspectors

AEO will monitor at least five percent (5%) of all units reported as complete in PY 2023 unless AEO verifies that a subgrantee does not have a completely independent QCI process from its energy auditing function or the agency is on probation or determined via the assessment process to be high-risk. If any of these scenarios apply, AEO will monitor at least ten percent (10%) of all units reported as complete.

Policy & Procedures for Inadequate Inspection Practices

- Subgrantee QCI accompanies state/third party QCI to learn first-hand of any deficiencies in its own inspection and audit.
- State/third party QCI provides feedback during the inspection.
- State/third party QCI addresses incomplete and poor workmanship as well as missed opportunities on site and in reports. Needed specific and/or comprehensive training will be delivered in the field by the state/third-party QCI at the time of the inspection or arranged later.
- State/third-party QCI identifies call backs and missed opportunities and identifies required corrective actions at subgrantee's expense including repayment of the cost of any disallowed measures.

Improvements are expected and AEO will meet with agency administration to review expectations and discuss any disciplinary actions.

Inspection and Monitoring of Work Using Guidelines and Standards

For PY 2023 Arkansas will continue to ensure that Quality Control Inspector (QCI) competency is demonstrated by mandating certification as a BPI Home Energy Professional (HEP) QCI. AEO requires that each subgrantee employ or contract with a HEP QCI. Subgrantees must submit to AEO the credentials of all staff employed as a QCI and of any third parties engaged to conduct quality control inspections. For PY 2023, AEO will procure a third party QCI to assist with the required number of inspections by the Grantee.

V.6 Weatherization Analysis of Effectiveness

Arkansas performs continuous weatherization analysis of effectiveness per 10 CFR 440.14(c)(6)(i);

- **Integrated diversity, equity, and inclusion objectives:** In the coming year, AEO plans to 1) develop a Justice40 waiting list to identify applicants who live in underserved areas, and 2) update Arkansas allocation formula to ensure limited weatherization resources are distributed equitably.
- **Assessing training needs**–

Training content will be based on the following:

- (1) Aggregating statewide findings/concerns from technical, administrative, and fiscal monitoring;
- (2) Subgrantee staff completing self-assessments for WAP managers who each submit a training plan to AEO for the allocation of T&TA funds, including needed training to maintain required certifications, which will be part of each Subgrant agreement;
- (3) DOE findings and concerns;
- (4) Training needs for contractors identified by both AEO and subgrantees (AEO will develop a specific policy to enable the use of T&TA funds for training contractors);

(5) AEO requiring self-assessments based on Knowledge, Skills, and Abilities (KSAs), for each subgrantee staff employed in a WAP position. Weatherization directors use these self-assessments, and other information specific to staff, to develop a training plan.

- **Path of continuous improvement:** In addition to conducting monthly desk reviews, AEO will resume making on-site monitoring visits.
- **Management findings or concerns:** corrective action plans are monitored and tailored training and technical assistance are provided.
- **Realized Energy Savings:** ECOS software has the capacity to capture pre and post energy usage which allows actual energy savings to be calculated.
- **On-site Inspections of Weatherized Units:** State/Third Party QCI will inspect a minimum of five percent (5%) of completed units for each subgrantee, unless AEO verifies that the subgrantee has not completely separated the audit and inspection functions, in which case a minimum of ten percent (10%) of completed units will be inspected (see previous Final Inspection section).
- **Monitoring:** Visits will focus on technical, fiscal, and administrative compliance with all applicable federal and state WAP rules and regulations. Findings will be tracked through a corrective action plan. Any patterns will be noted and addressed.
- **Single Agency Audits:** Each subgrantee must submit a financial audit within nine (9) months of the conclusion of the fiscal year. Audits will be reviewed and be used as part of a financial risk assessment.
- **Productivity:** AEO will track expenditures and average cost per unit of each subgrantee to monitor utilization of grant funds. AEO will track projected production levels quarterly and provide technical assistance.

V.7 Health and Safety

Arkansas' approved Health and Safety Plan is uploaded in the application attached to the SF-424.

Budgeted Health & Safety (H&S) funds for this program year are: \$317,102. The DOE approved percentage is 24.99% for Arkansas and will not be exceeded this program year.

Arkansas expects that H&S expenditures will average \$1,753.55 per unit, or 24.99% of the average cost per unit (\$7,017.00).

Minor repairs are capped at \$600.00 per DOE.

V.8 Program Management

V.8.1 Overview and Organization

The Arkansas Energy Office (AEO) is a part of the Arkansas Department of Energy and Environment, Division of Energy and Mineral Resources.

Within AEO is the State Energy Program (SEP), which includes multiple programs; Clean Cities; Energy Efficiency Arkansas (EEA), which is utility-funded; Low-Income Home Energy Assistance Program (LIHEAP); Low-Income Home Water Assistance Program (LIHWAP); and Weatherization Assistance Program (WAP).

The Weatherization Program Manager and staff work with AEO administrative and fiscal staff. The organizational chart shows WAP is a unit under the Senior Programs Manager. Connection to the State Energy Office allows an exchange of ideas beneficial to WAP.

The E&E Arkansas Energy Office (AEO) organizational chart is uploaded as an attachment to SF-424.

V.8.2 Administrative Expenditure Limits

For PY 2023, the state/AEO has budgeted half of the total allocation for Administration, or 7.5%.³

Subgrantee administration is half of the total allocation for Administration, or 7.5%.

All administrative expenses must be cost allocated among all grants (Uniform Guidance).

All subgrantees this year will have access to three (3) grants:

1. DOE annual formula/block grant
2. LIHEAP annual formula/block grant
3. DOE infrastructure award

Combined, all three (3) grants will provide more administrative funds to Subgrantees than available in recent years.

Approval of additional administrative costs is based on each subgrantee's total grant being less than \$350,000 and the subgrantee having a cost allocation plan for overall agency administration. The subgrantee who had the option to request additional administrative funds this year did not do so.

V.8.3 Monitoring Activities

Arkansas Weatherization Practices & Procedures for Monitoring

I. Technical Monitoring

AEO has been approved to use virtual technical monitoring approach. As travel restrictions are no longer imposed in the state of Arkansas, AEO will resume on-site technical monitoring as the official approach in fulfilling its technical monitoring obligations. However, AEO reserves the use of virtual monitoring in the event that it is needed.

1. On-site Technical Monitoring:

AEO will use its QCI-certified staff to conduct technical monitoring visits. AEO will procure a third party QCI to meet the monitoring obligations under the DOE grant.

³ The DOE allows half of the Administrative allocation to be spent by the Grantee and half by the subgrantee. This year's grant award (July 1, 2023-June 30, 2024) has a 15% Administrative share where the previous Administrative Share was 10%. Therefore, the Grantee, AEO, is allowed 7.5% Administration.

A minimum of five percent (5%) of units reported as complete will be selected for field review if the subgrantee certifies that its program operates with complete separation of staff who conduct energy audits and those who inspect the weatherization work. AEO will verify that this separation does exist.

For subgrantees who cannot document separation, a minimum of ten percent (10%) of completed units will be inspected.

File Review

1. State monitors and/or the subgrantee will choose jobs to review monthly from a list of completed jobs in the ECOS software. They will conduct desktop audits by reviewing client e-files.
2. State monitors will note any questions or concerns.
3. In some instances, conference calls may be warranted between the State monitor and pertinent subgrantee technical staff in order to resolve or clarify issues.
4. An email will be sent to the subgrantee WAP Director listing findings and concerns with a request to either address deficiencies or justify actions.
5. If the unit is selected for a field visit, relevant documents will be placed in a site visit folder with follow up areas noted.

The frequency of technical monitoring is as follows:

1. Conduct quality control inspection of at least five percent (5%) of completed homes to determine the quality of workmanship and appropriateness of service delivered by each subgrantee.
2. Inspect a minimum of four (4) homes per quarter at various stages of weatherization to ensure compliance with DOE rules and consistency between reported activities and actual measures.
3. Inspect at least one (1) unit per quarter per subgrantee and per crew or contractor for lead safe work practices.
4. Interview WAP subgrantee staff and clients to determine whether all tests were performed and appropriate measures installed on each unit.

2. Technical Desk Monitoring

Every month, technical monitors conduct desk audits in the ECOS software after jobs have been submitted to AEO as complete. A monthly desk review includes reviewing:

- Energy audit,
- Work orders/SWS,
- Health & safety,
- Final inspection by subgrantee QCI,
- Separation of audit and final inspection (different staff, certified QCI),
- Required forms present, complete, signed and dated.

Any findings from the desk audit review will be sent to each subgrantee via email. Auditors/inspectors can also see the state monitor's notes on the Billing Review tab in ECOS. This feedback enables subgrantee staff to consider alternative procedures in what might be complex weatherization situations and offers the opportunity to rerun final calculations.

In addition, monitors may conduct desk audits while the auditor/inspector is still in the audit/job. The objective is to look at audits and jobs in progress before they are completed and placed in a billing group;

in this way compliance issues are averted or better ways to evaluate/analyze a unit can be discussed before the job is turned in to AEO.

If AEO's technical monitors detect trends or deficiency patterns in the subgrantee's next QCI monitoring of completed units, the following steps will be taken:

- Monitoring of the subgrantee will increase so that an additional visit will be made prior to the next regularly scheduled visit;
- Additional units completed since the last regularly scheduled monitoring visit will be inspected; the number will be two (2) or 100% if less than two (2);
- One (1) in-progress unit will be inspected during this extra visit;
- AEO's QCI, third-party QCI (if applicable), and subgrantee staff will discuss: 1) contractor deficiencies, 2) quality of auditor assessments, and 3) subgrantee QCI giving a pass to substandard work and missed opportunities;
- Training needs relative to findings will be discussed and provided to subgrantee staff and contractors.

Note: Significant deficiencies are defined as: health & safety violations, poor quality installation of materials, and major measures missed.

Subgrantee noncompliance or repeated unresolved findings (based on a minimum of two [2] monitoring visits to a subgrantee without improvement) will be reported promptly to the DOE project officer.

An annual analysis will be performed to determine an overview/risk assessment - review status will be based on performance during the previous year.

3. Virtual Technical Monitoring

AEO has been approved to adopt the following practices and procedures as part of a virtual technical monitoring plan to be implemented as needed.

Virtual Site Visit for Work-in-Progress

When selecting a job for an in-progress on-site visit, the following will be considered:

The job has multiple measures being installed, thus giving the monitor an opportunity to gain a wider understanding of the agency's overall field practices. The subgrantee must provide AEO the following in advance of the visit:

1. Pertinent Client Information (name and address);
2. Energy Audit (Monitor can download from ECOS software);
3. Retrofitting Date; and
4. Work Orders (Monitor can download from ECOS software).

Once subgrantee contractors/crew have unloaded their equipment and materials and started work, subgrantee representative will contact the AEO monitoring team from the vehicle with a street view of the home for a group video call:

1. The video operator should be familiar with the home's scope of work and know what areas of the home to view. The monitoring team must observe:

- a. Contractor staff working from the street view;
 - b. Contractor staff working on-site; and
 - c. Subgrantee staff walk-thru tour (inside and outside).
2. The AEO monitor may request the video operator to slow his/her walk pace, zoom in on areas, and/or change directions and emphasis in order to see with more detail.
 3. Each worker starting with the crew leader will be asked what he/she is working on and what procedures he/she is using. The video operator will not hand the device to the worker and will maintain a six (6) foot distance.

AEO will assess:

1. Work in-progress installations to ensure Standard Work Specifications have been met according to Arkansas field guides;
2. General OSHA compliance and safety practices;
3. The AEO monitor may ask to see certifications, PPE and safety equipment, and SWS field guides; and
4. The AEO monitor may view the condition of the vehicles, tools, and insulation trailer, if applicable.

Virtual Technical Final Inspection

1. Subgrantee notifies AEO's technical monitor of upcoming final inspection and provides AEO the following:
 - a. Pertinent Client Information (name and address); and
 - b. Copy of Work Order (Monitor can download from ECOS software).
2. The monitor will review in ECOS WAP forms, data inputs and outputs, diagrams and the building modeling of the home, and view the home via Google Earth if available. Notes are made in preparation.
3. Two subgrantee staff must be present for the final inspection. One is the QCI who will conduct the inspection, and the other is the video operator.
 - a. The subgrantee staff will video call the state monitor from the vehicle once they arrive at the client's home.
 - b. The QCI describes each activity as they would during a proctored field exam. Everything that the final inspector would normally do is completed and video streamed.
4. The monitor will ask the team of inspectors to slow down, stop, explain, or to show a closer view of certain measures.
5. The video operator will be asked to adjust the camera so monitor can clearly see the meters, gauges, location of testing, and appliance operation.
6. Safety concerns noted by the monitor will be communicated immediately to the subgrantee inspection team.
7. The agency may have more than one device on hand as a backup if the first one's battery life is not long enough to support the entire final inspection, or a power bank.
8. As the final inspection is ending, the monitor will give the inspectors an opportunity to address anything they might have missed.
9. If it appears the home is being left in an unsafe manner, the monitor will alert the inspectors so that can be corrected. Notations will be taken and review notes will be included in an on-site monitoring letter.
10. Observations are made about how the inspectors addressed problems with the work or missed opportunities.

11. AEO's final inspection results will be compared to the subgrantee final inspection results for consistency. Comparisons will be made between AEO's QCI final blower door readings, ASHRAE requirements, and other diagnostic results entered in client file and in ECOS.

Training & Technical Assistance Review

There will be an annual, on-site review of each subgrantee by a technical monitor. The following will be reviewed:

1. Review AEO's technical quarterly/annual report for each agency prior to on-site visit;
2. Review each subgrantee employee's self-assessment prior to on-site visit;
3. Review subgrantee certifications prior to on-site visit. Discuss subgrantee staff of upcoming renewal dates;
4. Review each subgrantee employee's training plan prior to on-site visit and determine if training plans are being followed for persons employed by weatherization. Do plans support renewal of staff certifications; Are there plans for additional staff certifications;
5. Verify if each contractor certifications are valid. Check to see if SWSs were issued with work order;
6. Review subgrantee plan for evaluating contractor work;
7. Review subgrantee contractor training plan (if applicable) and determine if improvements have been achieved;
8. Review subgrantee plan for dismissing contractors for poor performance;
9. Conduct inventory check on equipment (including vehicles) and materials. Submit a written report;
10. Gather a list of equipment purchases/dispositions from previous and current program year prior to on-site visit. Inspect PPE and safety equipment;
11. Check to see if SWS field guides are in subgrantee and contractor vehicles.

Year-End Reporting

AEO will submit a T&TA, Monitoring, and Leveraging Report thirty days (30) after the end of the grant year. These reports will include subgrantees monitored; major findings and resolutions; trends with respect to findings, other concerns or issues; needed T&TA (programmatic/administrative, technical, financial); list of subgrantees considered high risk (from other programs or program management); and outcome activities involving T&TA and training during monitoring.

II. Subgrantee Administrative/Compliance Monitoring:

Desk reviews are conducted monthly. A desk review includes:

1. Client files – sample files from most recent invoice for reimbursement (minimum ten percent (10%) with increased numbers reviewed if deficiencies are found) with review of eligibility, rental agreement, SHPO compliance, job costs documented;
2. Contractors' agreements - agreements signed and citing SWS standards and work required to these standards;
3. Priority lists – confirm how clients are pulled from list; how priorities are entered in ECOS, are all five (5) priorities being calculated, is subgrantee re-determining client eligibility every twelve (12) months;
4. Program forms – ensures all relevant forms are accurate and complete and signed by both the subgrantee and the client (whenever applicable).

Annually, in the first quarter of the program year, each subgrantee will be visited by an administrative/compliance monitor (if the subgrantee has produced DOE units). An analysis will be performed to determine an overview/risk assessment- review status will be based on performance during the previous year. The following will be reviewed:

5. Management system relating to production;
6. Policies and procedures, including records retention.

III. Subgrantee Fiscal Monitoring

On a monthly basis desk reviews are conducted. A monthly desk review includes:

1. Subgrantee Monthly Billing Groups/Invoices are compared to submitted support documents (per line item category); this monthly procedure will also inform the on-site fiscal review.

Annually, each subgrantee will be visited by a fiscal monitor. An analysis will be performed to determine an overview/risk assessment- review status will be based on performance during previous year, including:

2. Sample month of general ledger compared to invoices, client files, and weatherization payroll;
3. Personnel and other expenses charged to weatherization administration;
4. Policies and procedures for financial management and separation of duties;
5. Procurement - process and documentation;
6. Follow-up on any findings from last single agency audit.

Resolution Strategies & Corrective Action Plans

Results of on-site Visits

After an on-site visit, an exit conference will include a discussion of findings with executive director, financial director, and weatherization director as available. AEO will send subgrantee a written report within thirty (30) calendar days of the monitoring visit. A combined report for the program, including administrative and fiscal reviews will be provided when the Administrative monitor and Fiscal monitor visit during the same time. Each report containing findings will require a response from the subgrantee with a corrective action plan which AEO will accept or reject, in whole or in part, in a written response.

Results of Technical Review

As it relates to a technical review, the resolution strategy starts with AEO sending a letter to the subgrantee containing the findings and corrective actions required by the QCI and conveying the original QCI reports to be filed in the client files. This letter requests that the subgrantee submit corrective actions taken and photographic documentation of such to AEO within fifteen (15) working days of the receipt of the letter. The letter also states that corrective work must be completed with non-federal funds. Corrective action documentation will be sent to QCI for approval.

On-site, In-progress Technical Monitoring

As a part of the corrective action process, in-progress inspections will be included in the field monitoring schedule for subgrantees who have repeated major deficiencies from one technical monitoring visit to the next. A QCI employed by AEO will conduct in-progress inspections following recommended assessments as outlined in WPN 22-4.

Process for discipline and/or removal of a subgrantee from the program.

The “AEO General Terms and Conditions” and “Scope of Services” in the “Administrative Grant Agreement” specify the criteria necessary for a subgrantee to be considered in compliance. Failure to maintain fiscal control, comply with federal regulations, or fulfill contract obligations will lead to probation.

The terms of probation will begin with monthly on-site monitoring to review problematic areas of the program with a frequency designed to assess improvements or non-improvement. Probation will be initiated for six (6) months with the option to extend for another six (6) months if sufficient progress is not deemed to have occurred but some improvement has been shown. Areas of required improvement will be specified in a written probation document and be under continual review during monthly monitoring visits. At the end of the probation period, AEO will either 1) release the subgrantee from probation; 2) take steps to bring the program into compliance by reducing the workload to a more manageable level; in this regard, AEO may reallocate part of the unobligated WAP funds and part of the subgrantee’s service territory to a suitable replacement subgrantee on a temporary basis; or 3) terminate the subgrantee grant agreement.

Resolution strategy

Monitors will follow-up to ensure that corrective actions are carried out by each subgrantee according to the approved plan. Based on required corrective actions and the risk assessments from the previous year, each subgrantee will be placed on a monthly, quarterly, semi-annual, or annual schedule of on-site monitoring visits. These scheduled monitoring visits will include a review of areas cited for corrective actions and any changes that have taken place with the subgrantee. Progress with production, staff training, and contractor performance will be reviewed. Any subgrantee placed on a monthly monitoring schedule will be deemed to be on probation.

AEO/WAP Program Staff

Yetu Robinson began employment as AEO's Weatherization Manager in September, 2022.

Wendy Ryan began employment as a **WAP Technical Monitor** in December, 2019. Wendy has Energy Auditor and OCI certifications and has worked at the subgrantee level as both an Energy Auditor and a Quality Control Inspector since 2012, before joining the state program.

James Cook began employment as a **WAP Grants Analyst/Programmatic Monitor** in January, 2023.

Angela Kelley has been serving as the fiscal monitor for WAP since July, 2020. She took a temporary assignment with WAP and then was retained as the **WAP Fiscal Monitor**.

Mrs. Kelley is under the direct supervision of **Tim Scott**, AEO’s Senior Operations Manager, who oversees the following areas: budgets, funds tracking, payment/reimbursements, and fiscal reporting. Both Mrs. Kelley and Mr. Scott will work together to provide financial management to the WAP.

Diane Bowen has been employed by Arkansas Weatherization state office since 2010. She serves as the Administrative Assistant.

During PY 2023, AEO plans to procure a **Third Party QCI** in order to be able to maintain the required 5% - 10% inspections of all jobs reported as complete.

WAP Coordinator position is vacant. AEO intends to fill this position by July 2023.

WAP Grants Analyst/Programmatic Monitor position is vacant. AEO intends to fill this position by June 2023.

Budget for Monitoring

All full-time weatherization program monitoring staff salaries are allocated 50% to DOE and 50% to LIHEAP, with the DOE portion allocated equally between Administration and T&TA. The Administrative Assistant and the Senior Operations (Financial) Manager are allocated 100% to Administration.

The four (4) full-time positions that serve as monitors (Ryan, Cook, Kelley and Vacant) comprise sixty-seven percent (67%) of the personnel budget. In addition, the budget has a line item for third party QCI procurement in the amount of \$27,343.85. The travel budget has \$5,280.00 allocated to in-state travel for monitoring purposes. Since Arkansas is a small state and AEO is located in the center of the state, these funds were calculated to be sufficient for this purpose.

V.8.4 Training and Technical Assistance Approach and Activities

PY 2023 will feature in-person training opportunities.

Training content will be based on two distinct categories:

1. Tier 1 Training: Comprehensive, occupation-specific training which follows a curriculum aligned with the JTA for that occupation. Tier 1 training must be administered by, or in cooperation with, a training program that is accredited by a DOE-approved accreditation organization for the JTA being taught.
2. Tier 2 Training: Single-issue, short-term, training to address acute deficiencies in the field such as dense packing, crawlspace, ASHRAE, etc. Conference trainings are included in this category.

Specific training content will be identified from the following:

1. Aggregating statewide findings/concerns from technical, administrative, and fiscal monitoring;
2. Subgrantee staff completing self-assessments for WAP managers who each submit a training plan to AEO for the allocation of T&TA funds, including needed training to maintain required certifications, which will be part of each Subgrant agreement;
3. DOE findings and concerns; and
4. Training needs for contractors identified by both AEO and subgrantees (AEO will develop a specific policy to enable the use of T&TA funds for training contractors).

AEO requires that each subgrantee have at least one (1) certified QCI on staff. This requirement has been met since July 1, 2015. Currently, there are nine (9) certified QCIs employed among the five (5) subgrantees and one (1) QCI employed by the state. AEO will procure, through a Request for Proposals (RFP), a contract for QCI services to complete inspections in fulfillment of Arkansas' Monitoring Plan.

Building Performance Institute (BPI) requires that all individuals who renew, or pursue a new, QCI certification hold an Energy Auditor certification. All QCIs in Arkansas WAP are also certified Energy Auditors. In addition, six (6) certified Energy Auditors who are not QCIs are employed by the subgrantees.

AEO recommends that new staff hired by subgrantees complete Building Analyst Technician and Building Analyst Professional and Manufactured Housing training to establish a solid foundation for going on to

certification as an Energy Auditor and QCI. AEO provides T&TA funding for subgrantees to include Building Analyst Technician and Building Analyst Professional certification for inexperienced, non-credentialed staff in their training plans. Some staff who need to start out with Building Science are supported in obtaining that training.

AEO requires that weatherization directors and field staff (auditors and inspectors) as well as contractors have active certification in lead-safe practices through the Environmental Protection Agency's Renovation, Repair, and Painting program. In addition, AEO technical staff and the Weatherization Manager are required to have this certification.

Maintaining workforce credentials: AEO stays abreast of credentials and their renewal requirements by maintaining a spreadsheet tracker based on the staff certifications submitted by subgrantees. AEO provides T&TA funds for subgrantees to obtain required continuing education units for QCIs and Energy Auditor based on the subgrantee's approved training plans.

Technical training, both Tiers 1 and 2, will be provided by a trainer affiliated with an IREC-accredited training center to provide CEUs leading to and maintaining certifications: QCI, Energy Auditor, Crew Leader, Weatherization Worker, Building Analyst Technician and Building Analyst Professional, and Manufactured Housing. AEO has established a working relationship with Caleb Copeland-Cook, affiliated with the IREC accredited training center in New Mexico but located in southern Missouri. Caleb replaced Dan Payne who retired. Staff attended several of Mr. Payne's trainings at his facility and he has come to Arkansas for several trainings. AEO will follow procurement procedures to obtain training during PY 2023.

Training provided by AEO in Arkansas is considered mandatory. Subgrantees have consistently attended available training, and, therefore, AEO has not needed to establish ramifications for non-compliance. In the case of non-attendance at training, AEO would consider requiring absent subgrantee staff to find and attend equivalent training elsewhere.

AEO encourages the following with T&TA funds made available to subgrantees:

1. Attend Building Analyst Technician and Building Analyst Professional and Manufactured Housing training;
2. Attend DOE/National Home Performance Conferences;
3. Attend Energy OutWest conference;
4. Attend NASCSP conferences, if appropriate.

AEO staff attend the fall and spring NASCSP conferences, Energy Outwest and the National Home Performance conferences. AEO staff will attend one (1) additional conference, if demonstrated to be specifically applicable to weatherization and job duties.

The 2023 AR WAP Annual Training Conference: In conjunction with Arkansas' LIHEAP, the Arkansas Energy Office will host a Statewide Annual Training Conference in Little Rock, Arkansas. The conference will be in person for the first time in five (5) years. AEO intends to have two (2) tracks for weatherization: a technical track and a non-technical track.

The technical track will provide attendees with hands-on training opportunities on a range of technical topics for which our Network has requested additional training, such as infrared camera and air sealing techniques. All technical workshops offer Continuing Education Units (CEU).

The non-technical track offers essential training on the following topics: Uniform Guidance and Cost Principles, the 2023 WAP Operations Manual, Workforce Development strategies, and Emotional Intelligence in the work place. There will also be cross-over opportunities such as LIHEAP/WAP referral training. AEO expects this conference to provide networking and coalition building opportunities.

Support of on-the-job training: AEO requires that weatherization field staff new to the job are supervised by trained and certified staff until such time that skills are demonstrated satisfactorily and any required certifications are completed.

Planning for industry-wide initiatives and future program requirements: AEO attends NASCSP conferences each year and through this and other conferences strives to keep abreast of industry standards and to include these areas in Arkansas trainings and requirements. AEO has established, for instance, a relationship for training opportunities with the AR HVACR Association.

During the planning for PY 2023, AEO will reach out to home industry trainers as needs are identified. In addition, AEO will partner with statewide home performance industry on training issues.

Use of effectiveness and energy savings evaluations to develop training: ECOS generates energy savings data from each job that provides snapshots of savings by different variables. In PY 2023, AEO will work with JAI to generate useful reports, such as the range of energy savings from common energy efficiency measures. AEO will seek consultation on using this data to guide development of specific and comprehensive training and assessment of effectiveness.

AEO intends to use as measures of effectiveness (1) job analysis and auditor's judgment/justifications, (2) the timeliness of completion rates for houses audited, (3) a review of reasons for deferral, and (4) measurement of energy savings.

Grantee effectiveness: AEO uses the resources of NASCSP for training and information relevant to implementing and administering the grant. AEO budgets for attendance at these and other conferences.

Arkansas Health & Safety Plan: In 2019, AEO utilized the DOE Health & Safety (H&S) template as its guide in developing the Arkansas H&S Plan by pre-populating the template with DOE and Arkansas H&S requirements and providing the template to the network's technical committee for review. The technical committee met on three occasions to complete the H&S Plan. It was finalized and approved by DOE in the fall of 2019. In 2022, the Health & Safety Plan was cross walked with WPN 22-7. The current Health & Safety Plan is attached to the SF-424.

Client Education: Client education is built into auditing and inspecting and is considered an important part of the weatherization process. There are specific forms to document the information given to and discussed with the client in the home.

AEO encourages subgrantees to budget for materials that each agency considers useful in educating clients. In addition, AEO has free materials on energy efficiency provided through another program that are distributed on an annual basis to subgrantees at the Arkansas conference, based on orders placed by the subgrantees. For the past four (4) years at the conference, AEO has provided a specific training session on communications which is designed for weatherization staff in the office and in client homes to learn to communicate more effectively with clients. Subgrantees are encouraged to respond to outreach requests and most are presenters in the LIHEAP Assurance 16 program in which clients learn household management skills, including energy efficiency practices.

Arkansas Mentoring Program:

Approved for PY 2022 (July 1) and continuing in PY 2023, the Arkansas WAP mentorship program is a creative effort to support recruitment, efficient onboarding, and career advancement at the state and subgrantee levels. At the state level and at the subgrantee level, at least one (1) certified quality control inspector (QCI) is onboard and very knowledgeable of WAP requirements. Therefore, Arkansas WAP is currently staffed to implement this program successfully.

The mentorship program consists of:

1. Staff who currently work for WAP at the state or subgrantee level but not in the technical part of the program, or who are hired from outside to work in WAP without QCI certification, must express interest in becoming a QCI *mentee*.
2. The QCI Job Task Analysis will be reviewed with the mentee in order to define the scope of work that will be part of the learning curve leading to QCI certification.
3. The mentee will work alongside energy auditor and QCI mentors to learn the tasks that are necessary for passing the written and field tests for QCI.
4. At the point that the energy auditor and QCI rate the mentee as proficient to work alone, the mentee will complete inspections that must be reviewed and approved by the certified QCI. The mentee will utilize video or virtual technology to document the steps in the inspection he/she completed; the certified QCI will review and sign off on the mentee's inspection on the WAP08.
5. As a mentee, a minimum of ten (10) audits performed with modeling in software and ten (10) inspections must be completed independently and approved by the certified mentors. Approval will be granted by on-site or virtual review of mentee performance. Both the mentee and certified QCI are required to sign the Arkansas inspection form, WAP08.
6. In addition, Arkansas WAP will bring in qualified trainers from IREC accredited training centers to provide classes for mentees and others on the following topics: building science, building/envelope analysis, mobile homes, and installer. These classes will be offered in various regional locations so that mentees from all subgrantees can easily attend. One of these classes will be taught at least every other month while mentees are receiving on-the-job training and advancing to completion of independent inspections. Mentees without construction experience will be required to take the installer class while others with verified construction experience will not.
7. Arkansas state WAP will inspect at least ten percent (10%) of completed units where a subgrantee has an ongoing mentorship program.
8. Arkansas expects that a minimum of six (6) months will be necessary to prepare a mentee to take the Energy Auditor and QCI exams.

Percent of overall trainings:

Comprehensive Trainings:	50
Specific Trainings:	50

Breakdown of T&TA training budget

Percent of budget allocated to Auditor/QCI trainings:	80
Percent of budget allocated to Crew/Installer trainings:	5
Percent of budget allocated to Management/Financial trainings:	15

V.9 Energy Crisis and Disaster Plan

Arkansas will not use any grant funds for energy crisis relief during PY 2023.