

U.S. Department of Energy
Weatherization Assistance Program (WAP)
STATE PLAN / MASTER FILE WORKSHEET
Grant Number: EE0009932, **State:** TN, **Program Year:** 2024
Recipient: State of Tennessee

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

V.1 Eligibility

V.1.1 Approach to Determining Client Eligibility

Provide a description of the definition of income used to determine eligibility

Countable income and income exclusions will follow WPN 24-3, or the most current version.

For a dwelling to be eligible for weatherization services, it must be occupied by a household who meets one of the following criteria:

1. Income Eligible – Total annualized income of the household residing in the dwelling to be weatherized is at or below 200 percent of the poverty level determined in accordance with the with the most current criteria established by the Director of the United States Office of Management and Budget, or
2. Categorically Eligible – The household has a member who has received cash assistance payments under one of the following state or federally funded programs:
 - Supplemental Nutrition Assistance Program (“SNAP”) [130% FPL]
 - Low Income Home Energy Assistance Program (“LIHEAP”)
 - Supplemental Security Income (“SSI”) – issued through Title XVI of the Social Security Act
 - Families First/Temporary Assistance for Needy Families (“TANF”) – for head of household
 - Woman, Infants, and Children benefits (“WIC”) – for households with 3 or fewer members [100% FPL]
 - Housing Choice Voice/Section 8 Rental Assistance

An applicant will remain eligible for weatherization services for 12 months from the date of verified eligibility. If 12 months have passed from the date of verified eligibility, and no weatherization work has begun, the household must recertify and show continued eligibility. Weatherization work begins on the date a completed audit is performed.

The application and supporting documentation will be reviewed and verified by the program administrator.

Describe what household eligibility basis will be used in the Program

Any household meeting either income or categorical eligibility would be eligible to receive weatherization benefits by the Weatherization Assistance Program (WAP).

Describe the process for ensuring qualified aliens are eligible for weatherization benefits

The applicant must be a U.S. citizen, or legal alien. Documentation of citizenship is required for every applicant, without regard to race, religion, gender, ethnicity, or national origin.

When an applicant declares themselves an alien, agencies will utilize the Systemic Alien Verification for Entitlements (“SAVE”) database for verification and maintain proof of eligibility in the client file.

V.1.2 Approach to Determining Building Eligibility

Procedures to determine that units weatherized have eligibility documentation

Pursuant to 10 CFR Part 440.1: The weatherization program is to increase the energy efficiency of dwellings owned or occupied by low-income families. The applicant must provide income documentation satisfactory to the Subgrantee outreach worker that demonstrates the household meets the eligibility requirements. The documentation must be maintained in the client file and made available for inspection by Subgrantee and state staff. Applicant income must be verified for the one-year period prior to the certification month.

Describe Reweatherization compliance

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Weatherization services for a dwelling unit previously weatherized using DOE funds are not allowable except if

- A dwelling unit is located in an area that has been declared a federal or state natural disaster area
- The dwelling unit has been damaged by fire, flood, or act of God and repair of the damage done to the weatherization materials is not paid for by insurance or other funds.

The building must be deemed salvageable by local authorities.

- **A dwelling unit has not been weatherized using Federal funds within fifteen years of the date such previous weatherization was completed.**

Any applicants being considered for re-weatherization are required to meet the income eligibility standards.

Each sub-grantee must maintain a listing of all units that have been weatherized, adding new units as weatherization work is completed. This list should be by full address, with county, and include the job number and the month and year in which weatherization was performed for each job. The subgrantee must check each application against their list of previously weatherized homes to see if the home has previously received WAP. The list of weatherized units is not to be purged. As a best practice, WAPez should not be used as a sole tracking source for units.

The following is a list of potential funding sources to help remedy situations in the home:

- LIHEAP Wx
- U.S. Department of Housing and Urban Development (HUD) HOME Program
- HUD – Community Development Block Grant
- U.S. Department of Health and Human Services – Community Services Block Grant
- U.S. Department of Agriculture Rural Economic Community Development
- Statefunded housing and rehabilitation programs
- Lowincome program funds provided by local utilities
- Cityfunded housing and rehabilitation programs
- Donations or financial participation from landlords
- Donations from local churches or community groups
- Donations from local businesses, nonprofit organizations, or local associations

Deferrals are tracked in WAPez, and any referrals are maintained in the client file. Listing the referral agency will be an add-on to WAPez in PY2024.

Describe what structures are eligible for weatherization

Structures eligible for weatherization include single family, mobile homes, manufactured housing, and with approval, small (2-4 unit) multifamily buildings. All structures must be stationary and have a specific mailing (street) address. Campers and non-stationary trailers are not eligible. All dwellings to be weatherized must be owner or renter occupied and occupied by a household.

Describe how Rental Units/Multifamily Buildings will be addressed

Rental Unit and Landlord Requirements

The eligibility of a household is determined by occupant, not by the ownership of the dwelling unit. Therefore, income eligible applicants who rent their homes as well as those who own their homes are equally eligible.

When weatherizing a building, no undue or excessive enhancement shall occur to the value of the property. In the case of a renter-occupied unit, whether a single or multi-family building, the benefits of the WAP must accrue to the benefit of the applicant. As a condition of eligibility and before any rental dwelling unit can be weatherized, the building owner/landlord must agree to have the building weatherized. A Landlord Agreement must be signed by the building owner, or his authorized agent, and a fully executed copy maintained in the client file. Separate permission from the renter is also required, and that applicant is to be provided a copy of the agreement for their records.

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When signing this agreement, the landlord agrees to the following:

- The rent for the property identified above shall not be raised for a period of one year (three years for multi-family buildings) from the completion date of the weatherization work, unless the increase is demonstrably related to matters other than the weatherization work performed. This rent freeze remains in place for a period of one year (three years for multi-family) from date of completion of the weatherization work, even if the applicant above no longer resides in the property;
- The Owner (or authorized agent) agrees that the lessee of the property identified above will not be evicted without legal cause (non-payment of rent, etc.) for a period of one year from the date of the completion of the weatherization work;
- If a complaint regarding a rent increase or eviction action is received by the subgrantee from the lessee of the property identified above, the Owner (or authorized agent) agrees to immediately provide the subgrantee, upon request, written information that the terms of this Agreement have not been violated;
- No undue or excessive enhancement shall occur to the value of the property identified above;
- There is no known plan for government acquisition or clearance of the property within 12 months of its weatherization under the WAP;
- Permission is granted for the subgrantee to conduct or to make arrangements for the following activities:
 - a. Survey and inspection of building inside and outside;
 - b. Installation of weatherization materials as authorized;
 - c. Supervision of installation;
 - d. On-site inspection of all completed work; and
- The terms of this Agreement shall be binding on the parties hereto, their heirs, executors, administrators, representatives, successors and assigns; and
- If this Agreement is not adhered to by the Owner (or authorized agent), the cost of weatherization shall be reimbursed by the Owner to the subgrantee, and returned to the WAP.

It is the responsibility of the subgrantee to ensure compliance with the landlord agreement. Following completion of weatherization, if a tenant believes that his or her landlord is violating the terms of the agreement, then he or she should report the matter to the subgrantee. The subgrantee should then contact the landlord for a response. If the subgrantee determines that the landlord's response is inadequate (does not justify a rent increase, etc.) then the subgrantee should consult with THDA for further guidance.

Since subgrantees are in a better position to observe and detect patterns which indicate such abuses, it is the responsibility of the subgrantee to contact THDA when such abuses have been identified. It is the expectation that renters and owners receive equitable treatment.

Multifamily Buildings

A building that has multiple (two or more) living units under a single roof is considered a multifamily building, regardless if renter or owner occupied. A single unit within a multifamily building cannot be weatherized as the entire building must be considered when providing weatherization services.

Before services can be provided, the multifamily building must be determined to meet minimum eligibility standards regarding the number of units with eligible applicants. Eligibility standards for multifamily units with formula WAP funds are:

- Multifamily units with four or less units must have a minimum of 50% of all units occupied by an eligible household.
- Multifamily units with five or more units must have a minimum of 66% of all units occupied by an eligible household.

Describe the deferral Process

THDA Subgrantees may elect to defer a home, that is currently in the queue to be weatherized, from receiving weatherization services where structural and health and safety hazards exist for Subgrantee staff, contractors, clients, or any other support staff.

It is the responsibility of the tenant and/or property owner to correct deferral condition(s) in order for weatherization services to proceed.

If additional support is needed, Subgrantees are encouraged to access Weatherization Readiness Funds (WRF) to address reasonable deferrals. Guidance on WRF processes, maximum expenditures, reporting requirements have been shared with the Subgrantee network via THDA WAP Memo 23-02. Guidance and changes in the WRF are noted [under IV-7 Miscellaneous of the Annual File](#) in this state plan and will be incorporated into the 2024 WAP Program Manual. If WRF funds are fully expended or otherwise not available, Subgrantees are encouraged to make referrals or collaborate with programs including any utility sponsored weatherization programs, home repair programs and other local resources in order to best serve the applicant.

Guidance: Through WRF set-aside fund, Subgrantees should address necessary repairs in dwellings that have been deferred from receiving weatherization services. This funding is specifically targeted to reduce the frequency of deferred homes that require other services, outside the scope of weatherization, before the

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weatherization services can commence.

- Subgrantees should prioritize applicants already on deferral lists.
- Weatherization Readiness Funds average cost per unit (ACPU) has increased to \$20,000 in PY2024-2025. It is recommended for subgrantees to submit all proposals for WRF, and THDA will manage the statewide ACPU.
- All contractors or parties hired to perform the WRF repairs must be licensed for the work they are being hired to perform. This may be verified at [Department of Commerce & Insurance Administration License Roster Search \(tn.gov\)](https://www.tn.gov/department-of-commerce-and-insurance/administration/license-roster-search).

Process:

1. Subgrantee identifies WRF projects either through conducting home evaluation and determines that house is not ready for weatherization (deferral) or reviewing a job that has already been placed on the deferral list.
2. Subgrantee estimates the repair costs to determine if repairs and costs fall within the guidelines of the WRF program.
3. Subgrantee prepares and submits WRF Proposal Form with supporting documentation (i.e. pictures, estimates, scope of work) via WAP@thda.org.
4. THDA will review and request more information as required, and will provide approval or denials.
5. Subgrantee will ensure readiness repair work is completed prior to weatherization.

Existing conditions under which a dwelling unit should be determined as Deferred include, but may not be limited to, the following:

- Elevated carbon monoxide levels where abatement is not possible using WAP funds;
 - Existing moisture problems that cannot be resolved within program guidelines;
 - House with sewage or other sanitary problems that not only endanger the customers but the workers who will perform the weatherization work;
 - Occupant's health condition;
 - Building structure or its mechanical systems, including electrical and plumbing, are in such a state of disrepair that failure is imminent, and these conditions cannot be resolved in a cost-effective manner.
 - Mechanical systems that have been "redtagged" and cannot be resolved within the scope and funding restrictions of WAP;
 - Any existing condition that could endanger the health and/or safety of the work crew or subcontractor and cannot be safely abated;
 - When toxic substances are discovered which cannot be addressed by the WAP, the coordinator should report the problems to the client and indicate that activities must cease until the identified condition has been corrected. This may include the existence of lead-based paint or asbestos containing materials that would have to be disturbed during the installation process.
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- Unlawful activities are occurring in the dwelling that could endanger the clients or the crews. Example: A home may have housed a methamphetamine lab. For a list of addresses that have been identified by law enforcement for meth activity see the following web address: <http://www.justice.gov/dea/seizures/index.html>
 - When structural, wiring or plumbing problems exist which make the project unfeasible, the client should be notified of the problem(s) and no further Weatherization activities should occur until such time as these conditions have been adequately addressed.
 - When a dwelling is infested with insects, rodents, etc., activities should cease until the condition has been remedied.
 - Condition of the home, and the contents within, prohibit the ability to weatherize the home.
 - Homes using unvented gas heaters as a primary heating source are not eligible for services until suitable measures have been taken to minimize the health and safety risks associated with unvented heating systems. If the client/landlord refuses the removal of unvented gas heaters, the job would be terminated without services provided.
 - Health and Safety funding has been temporarily exhausted, and weatherization work cannot proceed without addressing the associated health and safety issues that would be necessary in order to effectively perform the work or as a result of the weatherization work to be performed.
 - Initiation of eviction or foreclosure proceedings for the property will require deferral of weatherization services. In the event the household is evicted, or foreclosure of the property is completed the job will be terminated, rather than deferred.

Reporting:

Subgrantee will be required to provide a separate line-item reimbursement request for WRF funds within the current Invoice Workbook template. Funds and completed units will need to track independently from regular formula funding.

Reimbursement request will need to specify WAPeZ SITE ID and overall job status. It is recommended to include a copy of the contractor's invoice for

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WRF work along with the invoice but is not required at this time.

WRF will be carried forward into the next budget periods within the same grant cycle (e.g., Program Year (PY) 2023 can be carried into PY 2024).

V.1.3 Definition of Children

Definition of children (below age): 6

V.1.4 Approach to Tribal Organizations

☐ Recommend tribal organization(s) be treated as local applicant?

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

Tennessee does not have any federally or state recognized tribes. Any client that is a member of a tribal organization will be treated the same as any other eligible applicant.

V.2 Selection of Areas to Be Served

All 95 counties in Tennessee will be served. Funding allocations will be provided based on the percentage of the State's low-income population that resides within a county. Each county will have a single Subgrantee to administer the DOE WAP on behalf of the Grantee. Each Subgrantee will have a defined service area that will consist of one or more counties; and Subgrantee funding will be based on the county allocation(s) for their service area.

THDA reserves the right to reallocate funding amongst Subgrantees based on performance and need throughout the year.

In the event that an entity fails to execute a contract or cannot carry out the interest of the state to serve as a Subgrantee, or if THDA finds that a subgrantee selected to undertake weatherization activities under this part has failed to comply substantially with the provisions of the Act or this part and should be replaced, such finding shall be treated as a finding under [§ 440.30\(i\)](#) for purposes of [§ 440.30](#).

- Tennessee may terminate financial assistance under a subgrantee agreement for a grant period only in accordance with established State procedures that provide to the subgrantee appropriate notice of the State's reasons for termination and afford the subgrantee an adequate opportunity to be heard.
- Prior to the effective date of the termination of eligibility for further participation in the program because of failure to comply substantially with the requirements of the Act or of this part, a subgrantee shall have the right to written notice of the basis for the enforcement action and the opportunity for a public hearing notwithstanding any provisions to contrary of [10 CFR 600.26](#), to [600.28\(b\)](#). A notice under this paragraph shall be mailed by the Support Office Director by registered mail, return-receipt requested, to THDA, and other interested parties. To obtain an administrative hearing, the subgrantee must request a hearing, with prior notice, in the election letter submitted.
- A subgrantee shall have 20 days from the date of receipt of a decision to file a notice requesting administrative review. If the subgrantee does not timely file such a notice, the decision shall become final for THDA.

THDA reserves the right and will work to identify another organization to serve in this Subgrantee role. The process for identifying a subgrantee to serve the noncovered area will follow

[§ 440.14](#) & [.15](#) by the procedure below:

THDA shall ensure that:

1. In selecting a subgrantee, preference is given to any CAA or other public or nonprofit entity which has, or is currently administering, an effective program under this part or under title II of the Economic Opportunity Act of 1964, with program effectiveness evaluated by consideration of factors including, but not necessarily limited to, the following:
 - a. Each subgrantee is a CAA or other public or nonprofit entity;
2. THDA will notify all current subgrantees of the opportunity and identify the noncovered counties.
 - a. Subgrantees will have the opportunity to submit a Letter of Interest.
 - b. The Letter of Interest will include details regarding capacity, desired noncovered counties to support.
 - c. Letters of Interest will be reviewed by THDA staff to determine best fit.
 - d. The subgrantee must express their experience and performance in weatherization or housing renovation activities;

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- e. The subgrantee's experience in assisting low-income persons in the area to be served; and
- f. The subgrantee's capacity to undertake a timely and effective weatherization program.
- g. The quality of work performed by the subgrantee;
- h. The number, qualifications, and experience of the staff members of the subgrantee; and
- i. The ability of the subgrantee to secure volunteers, training participants, public service employment workers, and other Federal or State training programs.
- j. The extent to which the past or current program achieved or is achieving weatherization goals in a timely fashion;
- k. A scoring rubric will be created to select the replacement agency.

If no current Subgrantee is selected, THDA reach out to county officials in those counties noncovered and seek feedback identifying an organization. All applying CAA or other public or nonprofit entity will follow item(s) #2 – A to K (noted above) in the application process.

Each Subgrantee(s), CAA or other public or nonprofit entities that submits a Letter of Interest will be considered. Letters of Interest will be posted for 10 days for public comment to be received during a public hearing conducted pursuant to [§ 440.14\(a\)](#) and other appropriate findings regarding:

- The Subgrantee(s), CAA or other public or nonprofit entity will be selected to serve the noncovered area within 10 days of the public hearing and execute a contract with THDA and begin service immediately to the noncovered areas.

In the event that no organization can be identified to serve the noncovered area, the funds allocated to the noncovered area will be reallocated to subgrantees covering the remaining counties in Tennessee.

Interim plan for WAP services to support counties that are not being served:

- a. Current Subgrantees will be informed via email of the opportunity to increase their territory and serve the population of the noncovered counties.
- b. Subgrantees will be asked to submit a Letter of Interest which should include details regarding capacity, and desired noncovered counties to support. Subgrantees will have a 14-day window to submit their letter.
- c. Letters of Interest will be reviewed by THDA staff to determine best fit.

Letters of Interest will be reviewed by THDA management and subgrantee(s) will be selected within a 7-day period.

V.3 Priorities

Priority will be given to households with one or more vulnerable household member, and/or with a high energy burden.

A vulnerable household member is defined as elderly, disabled, or with a child under the age of six (6) years.

A household with a high energy burden, based on the percentage of total household countable income and their energy costs, will be given priority in receiving weatherization services. Priority will also be given to high energy users identified by their annual energy costs exceeding the average for low-income households in the East South Central Region according to the Residential Energy Consumption Survey conducted by the Energy Information Administration.

Priority wait lists will be maintained on a county level.

An approved client may have a maximum of 75 points, exception to the maximum may occur after additional points are assigned due to disaster related damage.

Priority points will be assigned as follows:

Vulnerable Household Members (50 Points Maximum)

Includes a household member with the following characteristic(s):

- Late Elderly (age 75+) 20
- Elderly (age 60-74) 15
- Disabled 15
- Child under age 6 years of age 15

If multiple elderly members reside in the unit, use the age of the oldest member to determine countable points. A client may be awarded points once per

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category based on current unit composition.

Energy Burden (15 Points Maximum)

Percentage of income used for home energy costs, calculated by the total countable annualized income for dwelling:

% of Income Used for Home Energy Costs Points

- 19.01% or higher 15
- 15.01% - 19% 10
- 8.01% - 15% 5
- 8.00% or less 0

High Residential Energy User (10 Points Maximum)

Annual Energy Costs Point Value, per the Residential Energy Consumption Survey:

Household Annual Energy Costs** Points

- \$3,000 or more 10
- \$1,900 - \$2,999 5
- \$1,899 or less 0

Average annual energy costs for a low-income household in the East South Central Region is \$1,907.00 (2015 Residential Energy Consumption Survey conducted by the US Energy Information Administration)

Using Multiple Funding Sources – Braiding Funds

Tennessee allows its subgrantees to use multiple funding streams in the Weatherization program, and follows all policies defined in DOE WPN 22-9 on allowability's with these approaches. We currently do not use the approach of blending, but braiding and co-funding measures are common in Tennessee WAP.

If additional funds are sourced through an alternate grant, those funds can be braided with WAP and LIHEAP Wx in order to alleviate the limitations of the ACPU and SIR restrictions. Subgrantees should assess the timing of service to an applicant that is in a priority category and may be set so services can be coordinated with other funding sources. Subgrantees are allowed flexibility to permit an applicant in a DOE priority category to be moved forward so that it may participate with the other grant. No more than 50% of the Subgrantees budgeted number of units, to complete in any program year, can be apportioned to the flexibility of moving an applicant forward. A request for approval will need to be submitted to THDA WAP staff at WAP@THDA.org and the subgrantees coordinator prior to work commencing.

V.4 Climatic Conditions

Tennessee has a generally temperate climate, with warm summers and mild winters. However, the state's varied topography leads to a wide range of climatic conditions. The westernmost part of the state, between the Mississippi and Tennessee Rivers, is a region of gently rolling plains. The Central Basin makes up middle Tennessee, and lies between the Tennessee River to the west, the hilly Highland Rim to the north and the Cumberland Plateau to the east. The Cumberland Plateau, with an average elevation of 2,000 feet, extends northeast to southwest across the State in a belt 30 to 50 miles wide, overlooking the Great Valley of East Tennessee. The Great Valley, which runs parallel to the Cumberland Plateau on the west and the Great Smokey Mountains on the east, is a funnel shaped valley varying in width from 30 to 90 miles. The Great Smokey Mountains lie along the Tennessee and North Carolina border, with peaks ranging from 4,000 to 6,000 feet.

Tennessee's topography contributes to the variance of temperature, with an average of three degrees Fahrenheit decrease per 1,000 feet increase in elevation. As a result, higher portions of the State, such as the Cumberland Plateau and the mountains in the eastern portion of the state, have lower average temperatures than those found in other parts of the state. Across the state the average annual temperature ranges from 62 degrees in extreme southwest portion to 45 degrees at the top of the highest peaks in the east. Statewide, the average annual temperature is 58 degrees, with a winter average of 39 degrees and a summer average of 76 degrees. Average annual precipitation in Tennessee is 53 inches, with the greatest rainfall occurring in the winter and early spring. Snowfall varies and is more prevalent in the eastern portion of the state.

The data is collected from www.degreedays.net and is posted below:

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Heating Degree Days
Month starting HDD
1/1/2023 633
2/1/2023 467
3/1/2023 459
4/1/2023 225
5/1/2023 75
6/1/2023 7
7/1/2023 0
8/1/2023 0
9/1/2023 16
10/1/2023 171
11/1/2023 452
12/1/2023 645
Total 3,150
Cooling Degree Days
Month starting CDD
1/1/2023 12
2/1/2023 9
3/1/2023 13
4/1/2023 13
5/1/2023 112
6/1/2023 222
7/1/2023 385
8/1/2023 352
9/1/2023 200
10/1/2023 47
11/1/2023 0
12/1/2023 0
Total 1,365

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V.5 Type of Weatherization Work to Be Done

V.5.1 Technical Guides and Materials

All work done is consistent with its DOE approved energy audit and Appendix A; Tennessee is approved to use LED's, replace Refrigerators, Lifetime changes and Heat-pump water heaters; once approved by DOE, replacement of standard and tankless water heaters will be allowed. All energy conservation measures (ECM) and related incidental repairs for a specific unit will be established through the use of the Weatherization Assistance Program Audit tool ("NEAT, MHEA") with the exception of the measures that have been identified as low cost or no cost. Health and Safety measures are not required to be cost justified.

All measures and incidental repairs performed on projects must meet the specifications, objectives and desired outcomes outlined in the Standard Work Technical Guides and Materials Specifications for Home Energy Upgrades, State and THDA policies and procedures. As needed, updates may be provided in the form of technical assistance memorandums, technical assistance contractors, or through reference to DOE established guidance. The measures identified are the more common measures. This list is not meant to be all inclusive. The national Standard Work Specifications can be found at <https://sws.nrel.gov/>, the current Tennessee Specific Standard Work Specifications will be available online and in digital form via the WAPez platform and linked here - <https://thda.org/help-for-homeowners/energy-assistance-programs/weatherization-assistance-program>. THDA is in the process of updating the previous link (Tennessee Wx Field Guide) to the current version. In addition the approved SWS has been uploaded as an attachment to the SF-424.

THDA contracted with Saturn Resource Management in PY18 to create a Tennessee specific field guide, this was updated in 2021. Tennessee's current SWS Field Guide is DOE approved. The field guide is readily available for Agency, Auditor, and Contractor use via the WAPez online system.

Ensuring Quality Work from Quality Control Inspectors, Energy Auditors and Contractors

All units must receive a final inspection by a THDA approved Quality Control Inspector ("QCI"). A THDA approved QCI must have a current QCI certification from the Building Performance Institute and must meet all other DOE and THDA requirements.

QCIs are required to ensure weatherization work has been completed and meets the current technical guidance and SWS. QCIs must attend all mandatory weatherization trainings. QCIs must retake any classes or trainings that are missed within six (6) months of the original training date, or they are no longer eligible to conduct QCI visits until they take that/those course(s). A QCI's performance is monitored by THDA or THDA's T&TA provider.

If there are repeat findings from a QCI, additional training will be required. If after successfully passing additional training the QCI continues to have repeat findings, THDA will not accept any final inspections signed by the QCI and the QCI is required to complete the following steps:

Step 1: Technical Assistance - THDA will set up technical assistance and training sessions with the QCI, THDA staff, and our T&TA provider.

Step 2: Additional Training - If the QCI continues to have findings after the technical assistance and training sessions, the QCI may be required to attend and pass mandatory additional training.

Step 3: Removal from the program - If the QCI is unable or unwilling to perform to the standard set by THDA and DOE, they will be removed from WAP and no longer able to work in the program for a minimum of two program years. After the completion of the two-year period an inspector may request to be reinstated into the program. The request to be reinstated must include the corrective action steps that were taken and justification. The request will be approved or denied by THDA.

THDA reserves the right to reject work from a poor performing QCI, Energy Auditor or contractor.

The Subgrantee, contractors, and auditors are able to view and download the TN WAP Technical SWS within WAPez via their login credentials.

By signing the WAP Contract and the Weatherization Services Contract the agency and contractor verifies that all weatherization work including audits/testing, installation of energy conservation measures, health and safety measures, incidental repair measures, and final inspections will be performed in compliance to the THDA WAP Manual, Tennessee Weatherization Field Guide, National Standard Work Specifications, and State and Federal requirements.

All work must comply with State and Federal WAP requirements and the THDA Standard Work Specifications.

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If a contractor repeatedly fails to meet program expectations, they will be subject to the following corrective action:

Step 1: Counseling - The Subgrantee will set up a counseling session with the contractor, local agency staff and THDA T&TA provider.

Step 2: Additional training - As a result of counseling, the contractor must attend and pass mandatory additional training.

Step 3: Removal from the program - If the contractor is unable or unwilling to perform to the standard set by THDA and DOE they will be removed from WAP and no longer able to work in the program for a minimum of two program years.

After the completion of the two-year period a contractor may request to be reinstated into the program. The request to be reinstated must include the corrective action steps that were taken and justification. The request will be approved or denied by THDA.

Air Sealing

Air sealing work will be guided by the use of a blower door and digital manometer. The most effective infiltration reduction efforts typically involve sealing leaks between the conditioned space and the unconditioned areas found in the attic or crawl space. The contractor performing the weatherization work will be required to perform necessary air infiltration measures until the unit is properly air sealed established using a CFM50 target based approach. The energy auditor may highlight recommended areas to focus air sealing efforts and list them on the work order. While it is a best practice and encouraged that contractors utilize blower door readings to identify air sealing opportunities, the Subgrantee has the flexibility to determine how they will specify it on the work order. The work order shall specify air sealing measures and hold the contractor responsible to conduct air sealing that will achieve a significant CFM reduction. With increased training for auditors and crews on air sealing techniques and CFM reduction, auditors and crews are better prepared to recognize areas to reduce air infiltration. We will continue to highlight air sealing in our training sessions during Program Year 2024.

“Air Sealing ... is the exclusive energy conservation measure that is not required to show a post weatherization individual SIR of 1.0 or greater. The package of weatherization measures, including costs and projected savings for air sealing, must have a post weatherization SIR of 1.0 or greater.” Infiltration Reduction/Air Sealing measure is not required to meet an individual 1.0 SIR as long as the cumulative SIR is 1.0 or higher for the entire project. All other Energy Conservation Measures must provide an individual SIR of 1.0 or higher and the cumulative SIR must be 1.0 or higher. If the contractor's bid amount for Infiltration Reduction/Air Sealing makes the cumulative SIR fall below 1.0 SIR, then the cost for the measure must be negotiated until the cumulative SIR is 1.0 or higher.

American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) Ventilation Standards 62.22016 will be followed when performing air sealing to the greatest extent possible. ASHRAE Ventilation standards are included in auditor training, the Tennessee Weatherization Field Guide and National Standard Work Specifications. ASHRAE 62.2 worksheet calculations are required to be included in the client's file.

If the structural integrity of the unit prohibits the use of the blower door, it may be that the unit is deferred. Living conditions that prohibit the use of the blower door may require deferral until such conditions can be remedied.

Attic Insulation

Attic bypasses shall be sealed prior to the installation of attic insulation. The amount of attic insulation that can be cost-effectively added depends on the level of existing insulation and type of space heating fuel. The final R Value that can be cost-effectively added will be determined by the energy audit tool and shall comply with Tennessee state standards and codes. Attics with structural issues that are beyond the scope of the WAP may not be able to be insulated in full or at all. In these cases, the unit may need to be deferred.

Tennessee Weatherization Field Guide and National Standard Work Specifications contains information regarding the proper procedure to follow for attic preparation and installation standards.

Floor Insulation

The Weatherization Assistant Audit Tool determines the appropriate R value and need for insulation for a specific unit. The Tennessee Weatherization Field Guide and National Standard Work Specifications define standards and procedures for floor insulation. The amount of floor insulation that can be cost-effectively added varies with existing levels of insulation, space heating fuel, and foundation type.

Plastic sheeting may be installed as ground vapor barrier, following the guidance provided in the Tennessee Weatherization Field Guide and National Standard Work Specifications. The installation of the plastic vapor barrier will preserve the integrity of the floor insulation by reducing the amount of moisture evaporating from the ground.

Wall Insulation

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Walls shall be insulated if the cost to insulate is justified. Walls that are already fully insulated or solid masonry, concrete, concrete block or wood will not be insulated.

The following conditions may result in a hazardous situation or a situation that would make proper installation of wall insulation difficult:

- Active knob and tube wiring is present in the wall cavity
- Wall cavity contains HVAC duct, wall furnace or heater
- Wall cavity is next to a fireplace or chimney without sufficient clearance
- Wall cavity space is connected to an unprotected pocket door cavity
- Wall repairs are needed and not able to be performed as part of the weatherization package

Other situations that may result in a hazardous situation or where the wall cannot be properly prepared due to unique structure of the home.

Other Insulation

Insulation of water heaters, water pipes, and HVAC ductwork are allowable weatherization measures.

Domestic Hot Water (DHW)

Replacement of the water heater is permitted, provided the replacement of the existing unit meets minimum SIR value of 1.0 or meets the definition for health and safety replacement. The replacement water heater shall be:

- Either a standard tank or tankless (on demand) water heater.
- All replacement units must be similarly sized as the original unit that is being replaced. Justification must be submitted to THDA if the size varies significantly compared to what was existing.
- All gas and electric DHW replacements shall be Energy Star rated. However, certain instances may occur where Energy Star water heaters cannot be installed due to space restrictions, etc. Any installation of a non-Energy Star water heater must be approved by THDA.

Solar water heaters are not approved as replacement units in Tennessee at this time.

Heating System Maintenance, Repair and Replacement

As part of the energy audit, all heating systems will be evaluated, including any ductwork present. A heating system may be solid fuel (wood or pellet stove heaters), electric, or combustible fuel (natural gas, propane or kerosene). If the heating source is wood or pellet, the related chimney must also be evaluated. Heating system maintenance, limited repairs or replacement is allowed, provided the SIR value is equal to or greater than 1.0.

Replacement or repair may occur outside the SIR requirements provided the necessary replacement meets the definition of a health and safety measure as detailed in the Tennessee health and safety plan and DOE's WPN 177.

Maintenance and repair will always be preferable to replacement of an existing unit, whenever possible.

All heating system replacements shall meet the current Energy Star specifications or equivalent. If the heating system is replaced, the original unit must be removed from the home, and be disposed of in accordance with standard policies and procedures.

Cooling System Maintenance, Repair and Replacement

Tennessee's hot, humid climate makes the use of air conditioning vital for many of our clients. All cooling systems will be evaluated, including any ductwork present. Maintenance and repair will always be preferable to replacement of an existing unit, whenever possible.

Cooling system maintenance, limited repairs or replacement is allowed, provided the SIR value is equal to or greater than 1.0. Replacement or repair may occur outside the SIR requirements provided the necessary replacement meets the definition of a health and safety measure as detailed in the Tennessee health and safety plan and DOE's WPN 22-7. If the cooling system is replaced, the original unit must be removed from the home, and refrigerants disposed in accordance with standard policies and procedures. All cooling system replacements shall meet the current Energy Star specifications or equivalent.

Unvented Space Heaters

If the unit targeted for weatherization services has an unvented gas or liquid fuel space heater that serves as the primary heat source for the home, this unit must be replaced as part of the weatherization services provided. The home cannot be weatherized under the Weatherization Assistance Program if the client refuses the removal of the primary unvented space heating source or if funding is not available to remove and replace the unit. The unit is to be replaced with a vented,

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code compliant heating system that is appropriately sized for the home.

If the unvented gas or liquid fueled space heater is a secondary heat source, it may remain in the home provided it complies with the International Residential Code (IRC) and the International Fuel Gas Code (IFGC). Removal is required, except as secondary heat, unless 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. DOE funds may not be used to replace any unvented space heater that serve as a secondary heat source.

Electric Baseload/Lighting

Refrigerator replacements are allowable as an ECM with a SIR of 1.0 or greater. Replacement refrigerators must be Energy Star Rated or equivalent. The existing refrigerator must be removed from the unit and disposed of properly as stated in the Health and Safety Plan. Lighting upgrades are included with the TVA Energy Saver Kits which are not funded by DOE but are provided to all WAP Clients.

Door and Window

All doors and windows will be evaluated as part of the energy audit. Only those doors and windows that are part of the building envelope can be repaired or replaced, provided the individual unit meets the necessary cost saving factor to support the decision. Replacement of doors and windows must be cost justified through the energy audit tool. In rare instances, doors and windows may be replaced as incidental repairs if associated with an energy conservation measure and meets the definition of an incidental repair. These circumstances must be well documented in the client file utilizing both written and photo explanation.

General Heat Waste Measures

The Tennessee Weatherization Assistance Program will allow the installation of the following measures that are typically acknowledged to be cost effective:

- Water Flow Controllers, including low flow shower heads
- Furnace or Cooling Filters, up to a one-year supply
- Weather stripping, caulking, plugging, glass patching and other similar measures primarily used to address air infiltration.

General Heat Waste measures are limited to \$100 of material cost per unit. Such measures may be installed by the energy auditor or the contractor. It is not necessary to have these measures recommended by the Weatherization Assistant audit tool, nor is a SIR of 1.0 or more required.

Incidental Repairs

The Weatherization Assistance Program is not a home rehabilitation program. Only limited incidental repairs will be permitted. **An incidental repair is a repair that is necessary for the effective performance or preservation of weatherization materials.** Such repairs include, but are not limited to: minimal roof repair or mobile home roof membranes, minimal floor and wall repair, attic access and stairs, limited electrical repair, leaking pipes, etc. These repairs must be necessary to preserve the integrity of the weatherization materials. All incidental repairs must be included in the cost savings calculation of the Weatherization Assistant, with a final cumulative SIR value of 1.0 or greater for the unit.

Certain measures may meet the definition of an incidental repair OR the DOE WAP health and safety definition. Subgrantees shall refer to the state's WAP Manual and Health and Safety Plan for guidance in defining the measure. The DOE WAP incidental repair /health and safety measure flow chart is also a valuable tool. The chart can be found THDA's Health and Safety Plan.

Items such as porch steps, landings, decks, handrails, ramps or any other repair item that are not associated with the effective performance or preservation of the weatherization materials are not allowable costs under the Weatherization Assistance Program.

Permits and Code Compliance

It is the responsibility of the Subgrantee to ensure the contractor obtains all necessary permits and is in compliance with codes for the area in which the work is being performed. Copies of permits will be included in the client file.

Bulk Purchases

THDA will consider Subgrantee request for the bulk purchase of WAP related materials and equipment. This consideration will serve in part to expedite completion of weatherization work which could otherwise experience a lag due to supply chain issues when ordering materials and equipment. It doubly serves to help control rising costs due to the state of the building industry in Tennessee. Purchasing in bulk should reduce per unit pricing.

Subgrantees are required to follow their internal, state, and federal 2 CFR 200.317326 procurement policies. Examples of considerations such as the type of material or equipment request Subgrantee/State average cost per unit, past and current Subgrantee performance, and local supply chain issues will be taken to

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ultimately approve or deny the purchase request.

Braiding and Co-Funding Measures

Tennessee allows its subgrantees to use multiple funding streams in the Weatherization program. With inflation rates increasing quicker than the ACPU, these strategies are more important than ever. Tennessee follows the guidance in DOE WPN 22-9. We currently do not use the approach of blending, but braiding and co-funding measures are common in Tennessee WAP. Tennessee follows all policies as defined in WPN 22-9 on allowability's with these approaches.

Field guide types approval dates

Single-Family: 11/9/2021

Manufactured Housing: 11/9/2021

Multi-Family:

V.5.2 Energy Audit Procedures

Audit Procedures and Dates Most Recently Approved by DOE

Audit Procedure: Single-Family

Audit Name: Other (specify)

Tennessee is approved to use the Weatherization Assistant (NEAT/MHEA) audit tool by DOE. Approval dates are July 5, 2021 through July 5, 2026.

Approval Date: 7/5/2021

Audit Procedure: Manufactured Housing

Audit Name: Other (specify)

Tennessee is approved to use the Weatherization Assistant (NEAT/MHEA) audit tool by DOE on mobile homes. Approval dates are July 5, 2021 through July 5, 2026.

Approval Date: 7/5/2021

Audit Procedure: Multi-Family

Audit Name:

Approval Date:

Comments

Audit Tool Approval

THDA received audit tool approval on April 28, 2021. THDA received verification from DOE on 3/20/2018 to use WAPez developed by TVA which is integrated with NEAT/MHEA for energy audits. THDA reserves the right to use other audit tool(s), after it has been approved by DOE, in the event NEAT/MHEA is not available. THDA has submitted the revised Energy audit and expects DOE approval prior to the new program year.

The following is the contract clause to ensure the Tennessee Weatherization Field Guide is used:

The Grantee shall perform all WAP activities and carry out all fiscal responsibilities in accordance with THDA WAP policies and procedures; the Standard Work Specifications and THDA SWS Field Guide and subsequent technical guidance; all applicable U.S. Department of Energy regulations and policies, and all applicable Office of Management and Budget (OMB) circulars (collectively, the "Program Requirements").

Energy Auditors

Energy audits will only be conducted by energy auditors that meet minimum qualification standards as defined by THDA. An energy auditor may be a Subgrantee employee or a contractor of the subgrantee. Tennessee requires every home to have an energy audit performed prior to weatherization services being provided in order to determine the appropriate measures for that specific unit. Subgrantees are encouraged to hire Energy Auditors that already have completed BPI Certification. It is required for an Energy Auditor to be BPI Energy Auditor Certified within 6 months of employment. All Energy Auditors must have a BPI Energy Auditor Certification and meet the other requirements of DOE and THDA WAP. All Quality Control Inspectors must have a BPI QCI

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Certification. Any individual hired by a subgrantee as a QCI must be certified within one year of employment. All final energy audits/ QCI inspections must be conducted by a QCI certified auditor that meets all other DOE and THDA WAP requirements.

Single Family

The audit tool approved by DOE for use on single family units in Tennessee is the Weatherization Assistant (NEAT/MHEA). DOE approval of the tool was obtained on July 5, 2016. Each Energy Conservation Measure (ECM), except air sealing (WPN 1305), must have a Savings to Investment Ratio (SIR) value of 1.0 or greater in order to be cost justified. Additional diagnostic tests will be conducted, as necessary, for the specific unit.

The energy audit recommended measures are used to build the work order for the unit. Based on DOE WPN 19-4, if minor measures must be removed from the work order due to costs exceeding the cap per unit, those measures with the lowest SIR value will be removed first (with the exception of infiltration reduction measures), along with any incidental repair that is tied to the deleted ECM from the work order. It is to be known, DOE WPN 194 defines major measures as: air / duct sealing (outside the thermal boundary) and wall / attic / floor insulation. These major measures *cannot* be removed from a work order *if* they are determined cost effective as defined by the audit tool. Whenever measures are added or removed, the SIR value must be recalculated to ensure both individual ECM and cumulative SIR values meet minimum standards. The actual cost of the measure as bid must also be compared to ensure that SIR requirements continue to be met.

Manufactured Homes

The audit tool approved by DOE for use on mobile home units in Tennessee is the Weatherization Assistant (NEAT/MHEA). The audit tool approved by DOE for use on single family units in Tennessee is the Weatherization Assistant (NEAT/MHEA). DOE approval of the tool was obtained on July 5, 2016.

Multifamily Buildings

Any multifamily building containing 5 or more units (including all living units and common spaces) will have the weatherization work awarded through the WAP-BIL grant. Projects will be sent to DOE for review and approval until DOE grants Tennessee the ability to approve multifamily projects.

For 2-4 unit properties, Subgrantees will submit projects to THDA for approval.

Weatherization Contractors

Weatherization work will be performed through a combination of contract or crew-based workers. Most Tennessee subgrantees contract weatherization work on a per job basis. Currently at least one subgrantee has hired a small weatherization crew while other agencies are contemplating the option as well.

All contractors and subgrantee crews must meet the training and certification requirements listed in the THDA WAP Manual. All contractors and crews must be approved by THDA. Only contractors with a current Tennessee General Contractor or Home Improvement Contractor license and who meet the current requirements listed in the WAP Manual may be allowed to bid. Licensed contractors who have three or more years of experience in weatherization work may be exempt from training course, at the option of the subgrantee, provided the contractor submits documentation of their experience. Contractors must ensure employees are also in compliance with federal and state requirements, as applicable. All contractors must carry an active liability policy in an amount as approved by the subgrantee. Any contractor currently on the federal Excluded Parties List System of suspended and debarred contractors may not participate. Subgrantees have the option to impose additional contractor qualifications.

If the building to be weatherized includes five or more family units, or if the building exceeds three stories, only those contractors with an active Tennessee Commercial Contractor's license may qualify to perform the work. All other contractor requirements still apply.

Provided the contractor meets the above qualification, the subgrantee has the authority to determine those contractors they wish to approve to bid on the weatherization work awarded through their agency. The subgrantee must ensure they have a sufficient number of approved contractors to ensure competition.

Contractors must sign the "Contract to Provide Services Under the Weatherization Assistance Program." This agreement is provided by the grantee to the subgrantee as a contract for the contractor on each WAP job. By signing the "Contract to Provide Services Under the Weatherization Assistance Program" the contractor performing the work is ensuring quality work and that all terms of the contract will be followed.

Weatherization Work Job Awards

Subgrantees using weatherization contractors will follow a THDA approved bid process, with the job being awarded to an agency approved contractor. All awards must comply with Federal and State procurement requirements. Subgrantees have the option to negotiate the costs or work to be performed when the bid exceeds the maximum amount permitted under the program, following the priority list (Recommended Measures Report) and procedures for removal of measures. The job is not considered to be "awarded" until there is a fully executed contract that includes the scope of the work to be performed for that specific

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unit.

In the event the qualified contractor withdraws their bid, the subgrantee may award the contract to the next contractor, with the same policies and procedures to be applied as described above. If the contractor defaults on the contract and fails to perform the work – either all or in part – the agency will have to reevaluate the work that remains to be performed and rebid the job.

Contractors who make an error in the submission of their bid have the option to honor the price as quoted, or to withdraw their bid. Under no circumstances will the bid error be corrected and the cost of the work to be performed increase as a result of the contractor's error when preparing their submitted bid.

Change Orders

Occasionally, there may be additional weatherization work identified after the initial audit or after the work has been awarded to a contractor. Change orders must be approved by the subgrantee prior to the additional work being performed by the contractor.

V.5.3 Final Inspection

Tennessee currently has 9 certified Quality Control Inspectors. There is a mix of staff and contracted QCIs in Tennessee. Some agencies do not have the capability to have multiple QCI inspectors/auditors on staff. Agencies that use the same auditor for their audits and inspections will have monitoring increased to at least 10% of units. Tennessee allows Subgrantees to use QCI certified inspectors on a contract basis. QCI performing the final inspection cannot also have performed weatherization work on the home.

Once the contractor has notified the subgrantee that all work on a unit has been completed, the subgrantee will assign a qualified Quality Control Inspector to perform an inspection. Every WAP unit must receive a final inspection by a certified QCI ensuring that all work meets the minimum specifications outlined in state and national standard work specifications and in accordance with 10 CFR 440. The purpose of the inspection is to ensure that all required measures (ECMs, incidental repairs, health and safety items) were installed in the building in accordance with program guidelines. The quality control inspection is driven by the initial energy audit, work order, the awarded contract that specifies the work to be performed, and any change orders that have been approved for the job.

If the QCI determines that all required work has not been installed, or has not been installed in accordance with program standards, the contractor will be notified of the necessary corrections to be made. The contractor will not be paid additional funds for correcting the original work and bringing it up to program standards. Once corrected, another inspection will be conducted. All completed work must be inspected by a BPI certified, and agency approved, QCI and passed before the job can be considered completed.

Contractors will not be paid until work has passed inspection.

Every client file must have a final QCI inspection form that certifies that the unit had a final inspection and that all work met the required standards. The form must be signed by the client and the certified QCI. If a unit has received both a final inspection and has also been monitored by THDA, two certification forms will be available in the client file, one for each inspection.

Subgrantees have the option to incorporate contractor penalties related to failed inspections or a contractor's failure to complete the work by the timeframe outlined in the contract. If a penalty is applied, the payment made to the contractor will be reduced by that amount. The reduced cost for the weatherization work will be invoiced to THDA, with the amount of the applied penalty defined.

If the final inspection cannot be performed due to the client's unwillingness to allow the auditor access to the home, or other circumstances beyond the agency's control, the job can be closed after sufficient effort has been made to conduct a final inspection. In this situation, the contractor may be paid, but the job cannot be counted as a completed unit for purposes of meeting production goals.

If there are repeat findings from the same QCI the Subgrantee will be notified and the QCI will be placed on a corrective action plan including increased training. Disciplinary actions are listed in WAP Manual 10.9. Sub-grantees have the flexibility to set their own policies for energy auditor probation, suspension and termination, and are strongly encouraged to do so. The provided Energy Auditor Contract Template in Chapter 19 can be modified to include any sub-grantee specific penalty situations and fiscal penalties. Any contracted energy auditor that is suspended or terminated by a sub-grantee due to poor performance, fraud or abuse will be reported to the State Office.

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V.6 Weatherization Analysis of Effectiveness

Every unit will have an energy audit performed utilizing the WAPez software which runs the Weatherization Assistant (NEAT/MHEA) tool to identify the most effective measures for that particular home. In addition, Tennessee plans to continue the partnership with the Tennessee Valley Authority (TVA) to evaluate the impact the weatherization work had on the energy costs for the home. This partnership will require THDA to provide TVA with pre and post weatherization data for the unit and TVA provides energy saving kits to all WAP clients. TVA will evaluate the measures installed, the pre weatherization energy costs and the post weatherization energy costs. There will be no cost to the program for this evaluation.

THDA will also conduct a cost analysis across the state in order to provide updates to our measure cost library. The analysis will include obtaining contractor actual cost and averaging them for the state. The cost averages will be compared to market costs and adjusted as needed.

The results of the Quality Assurance Reviews are incorporated into training plans that are to be provided both statewide and on an agency basis. Continued monitoring of progress and work performed will inform the next steps in development of training.

V.7 Health and Safety

Tennessee will track and report health and safety expenditures separately, and these funds will not be considered in the average cost of the unit. Subgrantees are allocated a specific dollar amount equal to 15% of their Program Operation funding that may be used to address health and safety issues as permitted in Tennessee's health and safety plan. Funds may only be spent in homes where weatherization work is being performed. Only those health and safety items that are necessary in order to effectively perform, or as a result of weatherization work, will be permitted. The Health and Safety Plan template is attached to SF-424. Subgrantees are also instructed to review policy in the WAP Manual and DOE WPN 19-5 which includes a flow chart to help determine funding category of a measure, namely health and safety or incidental repair.

H&S expenditures are generally limited to \$1,275 based on historical data and use during previous Program Years. Subgrantees are permitted to exceed this amount if they provide justification to THDA and obtain approval.

Additionally, the Subgrantee must incorporate the Radon Requirements listed within WPN 22-7 and adhere to the Buildings Assessment of Radon Reduction Interventions with Energy retrofits Expansion Final Report.

The Subgrantees must also update their email notifications to use the Radon Informed Consent Form which provides documentation that the occupant(s) (and landlord if applicable) have been informed of any potential hazards associated with radon in weatherized dwellings.

The form must minimally contain the following:

1. An explanation on the potential small risk of increasing radon levels when building tightness is improved.
2. A list of precautionary measures WAP will install based on EPA Healthy Indoor Environment Protocols.
3. Some of the benefits of Weatherization including energy savings, energy cost savings, improved home comfort, and increased safety; and
4. Confirmation that EPA's A Citizen's Guide to Radon was received and radon related risks were discussed with the client.

TN is defining the PY24 ACPU as \$8,497.00.

V.8 Program Management

V.8.1 Overview and Organization

The Tennessee Housing Development Agency (THDA) has been designated by the Governor as the State's administering agency for the Weatherization Assistance Program (WAP), effective with PY2012. Local agencies, including community action agencies, human resource agencies, not-for-profits, and other public entities, will contract with THDA to provide weatherization assistance in each of Tennessee's ninety-five counties. THDA's intent is to provide weatherization services statewide but funding limitations may prevent weatherization work from occurring in each county every program year.

The Weatherization Assistance Program (WAP) was established under Title IV of the Energy Conservation and Production Act and amended by the National Energy Conservation Policy Act, the Energy Security Act, the Human Services Reauthorization Act of 1984, and the State Energy Efficiency Programs Improvement Act of 1990. The program is administered and funded at the federal level by the U.S. Department of Energy (DOE). This program is

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designed to assist low-income households in reducing their fuel costs and to contribute to national energy conservation through increased energy efficiency and client education. Weatherization measures provided by this program will reduce heat loss and energy costs by improving the thermal efficiency of dwelling units occupied by low-income households.

All allocations to local agencies are subject to Congressional appropriation (and/or Federal Court orders) and subsequent allocations to the State by the DOE. In the event anticipated Federal funds are not obtained and continued at the levels indicated in this Plan, the Department reserves the right to reduce all agency allocations accordingly. In no event shall funds be provided for reimbursement of WAP agencies where federal funds are not available for such purposes. Tennessee has allocated up to 10% of LIHEAP funds to operate a LIHEAP based weatherization program. LIHEAP Wx will be subject to some DOE rules.

Funding allocations to subgrantees will be provided based on the percentage of low-income population within a county. This percentage will be determined using a three-year rolling average of the Census data (Small Area and Income Poverty Estimates). This funding formula will be updated annually, using the most recent three years' worth of data available at the time. THDA will monitor expenditures during the fiscal year. Subgrantees who are not on track to fully expend their allocated funds within the fiscal year may have their funds returned to the State for reallocation. Any funds that are unspent at the end of the fiscal year will be recaptured by the State and reallocated at THDA's discretion.

Subgrantees are expected to meet performance and quality standards, as defined by the State. Failure to meet these standards can result in termination of the subgrantee contract.

Subgrantees may request advance payment to THDA, in writing, to meet the immediate cash needs of the program and requirements of 2 CFR 200.305. Subgrantee risk will be evaluated by THDA using an assessment tool. The advance amount requested by the subgrantee will be as close to the minimum amount needed and based on historical payments from previous program years.

All funds available to Tennessee's WAP will be administered in accordance with DOE rules and regulations and State policies and procedures. Local agencies will be required to adhere to these and other applicable federal regulations, including the Accounting Manual for Recipients of Grant Funds in Tennessee, published by the State of Tennessee's Comptroller of the Treasury; and the Tennessee Weatherization Assistance Program policies and procedures.

Pollution Occurrence Insurance (POI)

Tennessee does not require Subgrantees to purchase Pollution Occurrence Insurance (POI). However, it is an allowable expense if a Subgrantee opts to purchase this insurance.

Caps on Expenditures

Each project averages \$8,497.00 in DOE funding to perform weatherization services (ECMs, Incidental Repairs) on a single-family home.

Tennessee will track and report Health and Safety expenditures separately, and these funds will not be considered in the average cost of the unit. Subgrantees will be provided a specific dollar amount equal to 15% of their Program Operation funding that may be used to address health and safety issues as permitted in Tennessee's health and safety plan. Funds may only be spent in homes where weatherization work is being performed, although there is not a limit per home. Only those health and safety items that are necessary in order to effectively perform, or as a result of weatherization work, will be permitted. The Health and Safety Plan template is attached to SF-424.

Expenditures for a multifamily building are limited to the number of units occupied by an eligible household multiplied by \$8,497.00. The Grantee reserves the right to provide approval to exceed these caps on a case-by-case basis. The State average per unit will not exceed the maximum permitted by DOE.

Other Funding Sources for WAP

The funding period for LIHEAP Wx (LWx) is different than DOE. DOE grant period is 7/1 to 6/30. The LIHEAP Wx grant period is 10/1 to 9/30. Currently the LWx allocated amount for each client is \$10,000 per grant year. For PY 2024-2025, THDA will revise the allocated amount for each client to \$20,000 of LWx funds. Working in conjunction with Tennessee WAP, LIHEAP Wx funds of \$5.094M were combined for a total of \$11.481M for the Tennessee Weatherization program in PY 2023-2024.

If additional funds are sourced through an alternate grant, those funds can be braided with WAP and LIHEAP Wx in order to alleviate the limitations of the ACPU and SIR restrictions. Subgrantees should assess the timing of service to an applicant that is in a priority category and may be set so services can be coordinated with other funding sources. Subgrantees are allowed flexibility to permit an applicant in a DOE priority category to be moved forward so that it may participate with the other grant. No more than 50% of the Subgrantees budgeted number of units, to complete in any program year, can be apportioned to the flexibility of moving an applicant forward. A request for approval will need to be submitted to THDA WAP staff at WAP@THDA.org and the subgrantees coordinator prior to work commencing.

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Client Education

Client education will be provided to clients by the subgrantees, auditors and contractors. The state will provide a basic client education review sheet that is to be covered with all clients that will address their specific lifestyle and provide an opportunity to discuss specific issues noted during the client interview and home inspection. As standard health and safety issues are covered during the initial inspection by the subgrantee, information will be provided on the measures that are scheduled to be installed. Clients will be asked to notify the subgrantee or energy auditor of any known or suspected health and safety concerns on the Tennessee WAP Client Education Checklist. The Tennessee WAP Client Education Checklist must be retained by the subgrantee in the client's file. If there are health and safety concerns, or other concerns, noted by the client during the client education process, those concerns will be brought back to the subgrantee's program manager. The subgrantee will notify THDA if the client's concerns cannot be answered. THDA will seek guidance from the DOE Project Officer if the client's concerns cannot be answered at the Grantee level.

The Tennessee Housing Development Agency partners with the TVA (Tennessee Valley Authority) to obtain client education kits that support energy conservation practices. This will be provided at no cost to the client. Additionally, no DOE funds will be used. This kit will contain products and materials that inform clients of basic energy conservation practices to help them further reduce their energy costs. All subgrantees will participate in client education activities.

THDA will also continue to explore best practices throughout the state, and nationally, on effective ways to deliver client education related to the WAP. There is growing interest in third party, regional energy efficiency advocacy groups that can provide a means to organize and deliver education to WAP clients. This type of "client training" on the responsible use of energy and healthy home habits would be an allowable use of state T&TA Funds.

As stated in the previous deferral section, THDA is working towards implementing a more comprehensive prescreening process that will lend towards "house as a system" education and identifying common H&S hazards. This form of client education may in turn lead to more efficient deferral determinations.

Policy Advisory Committee

The Policy Advisory Committee (PAC) serves to advise THDA not only on issues specifically related to the Weatherization Assistance Program but will also provide guidance to THDA on how it can be more effective through the promotion and modeling of energy conservation practices as they do business. The PAC consists of members named by THDA, each of whom will serve time in limited terms. The Policy Advisory Committee (known as The Energy Efficiency and Weatherization Advisory Board) consists of individuals who have been involved in the program in some capacity, in a technical or operational capacity, energy provider representatives, individuals involved in property development, and individuals who represent the low income and elderly population served. A representative from THDA is a nonvoting member.

V.8.2 Administrative Expenditure Limits

THDA will follow the rules for administrative expenditure limits outlined in 10 CFR 440.18 (e), which states that not more than 15 percent of any grant made to a state may be used by the grantee and subgrantees for administrative purposes in carrying out duties under this part, except that not more than 7.5 percent may be used by the state for such purposes, and not less than 7.5 percent must be made available to subgrantees by states. DOE includes the provision where a Grantee may provide in its annual plan an additional 5 percent for administration for recipients of grants of less than \$350,000. The grantee must determine that such recipient requires the additional amount to implement effectively DOE's administrative requirements.

Subgrantees are authorized to budget up to 11% of their total fiscal year allocation for administrative costs subject to approval by THDA. The Tennessee Housing Development Agency will retain 4% of the federal funding allocation for its own administrative costs.

V.8.3 Monitoring Activities

The Compliance and Asset Management ("CAM") division of THDA is responsible for monitoring the Weatherization Assistance Program ("WAP"). The scope of the monitoring will include a review of the client files and technical inspections. Client jobs are randomly selected for file review and technical monitoring. Generally, clients selected for programmatic file review are the same for technical inspection, however this is subject to change due to client availability.

The WAP Technical Advisor for the Community Services Division oversees the Technical Monitoring in partnership with Community Housing Partners.

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THDA's Internal Audit Division will conduct the Fiscal Monitoring of the WAP. Housing Program Coordinators process WAP reimbursement requests.

An estimated amount of 5% of the grantee admin funds are used for program monitoring, and about 40% of the T&TA funds are used for technical monitoring. THDA will monitor in accordance with the approach outlined in WPN 24-4 which includes, but is not limited to, the lists in the sections below. QA inspection selection process and the method will be applied uniformly across the state. The same clients selected for QA will also include file review of eligibility, procurement, etc. THDA employs a "start to finish" client file monitoring approach.

Programmatic and Management Monitoring

Each Subgrantee weatherization program will be monitored annually and in accordance with 10 CFR 440.23 and DOE WPN 24-4. Subgrantees will be monitored for compliance with federal and state policies and procedures, and where applicable, compliance with the Subgrantee's approved operational plan. A random or selected sample of case files will be reviewed. Through the use of THDA's WAP reporting platform, WAPez, the Housing Programs Compliance Team will monitor Subgrantees to ensure compliance. The desk review typically consists of client intake evaluation as well as review of audit and inspection related documents such as QCI forms, photos, and ASHRAE 62.2 calculations. Any questions related to the review or documents missing from the file upload may be requested during monitoring review. THDA will also request upload of missing or additional documents to WAPez, as necessary. Area of monitoring include but are not limited to:

- Correct determination of eligibility and notification provided, including the applicant's annual recertification where applicable
- Case documentation
- Identification of re-weatherized units, and agency method for tracking homes that have been weatherized
- Compliance with rental property requirements and eligibility
- Compliance with multifamily building policies

In addition to the review of case files, the following information will also be reviewed:

- Conduct inventory of any equipment (original purchase price of \$5000 or more) purchased with DOE funds.
- Review staff and contractor qualifications and contracts, if applicable, to determine compliance with program requirements and Subgrantee's operational plan
- Review Subgrantee's process of tracking and addressing quality and workmanship concerns and findings for staff, auditors and contractors.
- Review process for contract payment.
- Review the agency procedures for identification of staff performance and subsequent corrective action to address any deficiencies.
- Using the Weatherization Manual / Operational Plan that each Subgrantee must sign and submit to the Grantee on an annual basis for review and approval, monitor for compliance with the Plan.
- The Subgrantee's most recent annual audit
- Review findings from Grantee's technical inspections and corrective action plans that have been implemented to address any concerns
- Ensure procurement process complies with federal and state requirements, and follows procedures outlined in the Subgrantee's operational plan
- Budget management of funds
- Compliance with production goals
- Contract compliance
- Timely and accurate submission of reports and invoices
- Identification of Training and Technical Assistance needs

This list is not meant to be all inclusive and may be expanded as necessary to ensure compliance with both federal and state program guidelines.

Financial Monitoring

THDA will comply with the requirements of 2 CFR 200 Subpart F Audit Requirements.

In addition to an annual financial monitoring visit to each Subgrantee, all invoices submitted for payment will undergo a fiscal desk review prior to any payment being authorized. This desk review will include Subgrantee invoices and the documentation that supports the amount invoiced. The invoice and supporting documentation will be reviewed and approved by multiple staff persons prior to submission to THDA's fiscal department for payment.

Invoices reviewed that lack sufficient backup documentation will not be paid until documentation is provided that justifies the amount invoiced. Additionally, any invoiced expense that is not an allowable expense will be disallowed and deducted from the amount to be paid.

Internal Audit follows-up to ensure that each Subgrantee takes timely and appropriate action on any Single Audit findings related to the particular Federal subaward provided by THDA to the Subgrantee as a pass-through entity. In addition, Internal Audit performs fiscal monitoring at least once every three years. At minimum, this monitoring visit will review the following items:

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- Financial Management and Accounting Systems and Operations
- A review of the most recent annual audit conducted for the Subgrantee. Any additional audits related to WAP that have been conducted within the last twelve (12) months will also be reviewed
- Payroll and personnel
- Equipment and/or vehicles defined as any item with an initial cost of \$5,000 or more that were purchased with at least a percentage of DOE WAP funds.
- Procurement
- Invoicing (supported by fiscal desk reviews mentioned earlier)
- Record Retention
- Contract compliance
- Follow-up on issues from prior monitoring visits, reports, desk reviews and other sources

Subgrantees are required to submit their Annual Single Audit for THDA to review.

Technical Monitoring

THDA will conduct quality assurance inspections of at least five percent (5%) or more of all completed units per Subgrantee during the program year. Subgrantees that do not have an independent QCI to conduct the final inspection will increase monitoring to ten percent (10%) of completed units. THDA may increase the percentage of units being monitored for Subgrantees with significant deficiencies based on previous monitoring, in progress monitoring, desk reviews, multiple dwelling unit types, analysis of risk assessment and various other observations. Inspections will be performed by a certified Quality Control Inspector and performed by a THDA employee or a contractor acting on behalf of the Grantee. Weatherization activities will be monitored to ensure compliance with the guidelines provided in the Standard Work Specifications and the Tennessee Weatherization Field Guide, the Health and Safety Plan, technical assistance memorandums and the WAP Policies and Procedures Manual.

Technical monitoring consists of desk review using WAPez as well as site visits to verify quality work practices and validity of the energy audit and inspection.

In-progress quality assurance inspections will also serve as an opportunity to provide technical assistance as appropriate. THDA compensates contract workers who attend at a flat rate of \$150/inspection using T&TA funds. The compensation encourages contractors to attend hands-on training while being removed from other paid work for the day. Additional description to this is found in the T&TA section of the plan.

Subgrantees whose completed units require reworks or other corrective action cannot use DOE funds for the correction process. Findings related to technical assistance visits will be tracked on a Subgrantee, auditor and contractor level to help identify exceptional, as well as poor performance and workmanship issues. These results will be used to identify training and technical assistance needs for our continuous quality improvement process.

Technical monitoring will review the work of the auditor, contractors, and the QCI. If there are repeat findings from the same QCI the local agency will be notified and the QCI will be placed on a corrective action plan including increased training.

THDA will monitor for the training and certifications requirements of WAP contractors and auditors during the technical monitoring visit. This is a shared responsibility with the Subgrantee.

Monitoring Reports and Corrective Action Plans

Within thirty (30) days following every programmatic, financial, or technical monitoring review, a report that details the findings of the visit, including any identified best practices will be provided to the Subgrantee agency. Should there be a significant delay to the thirty days, THDA will notify the Subgrantee with brief description and an alternate timeframe when the report will be delivered. The Subgrantee will be required to provide a written Corrective Action Plan (CAP), responding within (30) days, that addresses all identified findings and concerns. The CAP must provide the actions the local agency has taken or plans to take, along with a timeline for implementation, to address and alleviate the concerns. Issues must be resolved in a timely manner if significant deficiencies are discovered during monitoring. If the Subgrantee disagrees with any findings in the monitoring report, they may provide rebuttal as part of their CAP. The CAP is not final until it has been reviewed and all corrective action plans and/or rebuttals accepted by the Grantee. If there are questioned costs identified as part of the monitoring visit, and these costs are not successfully resolved during the CAP process, these costs will be recovered from the next invoice. If they cannot be recovered from a subsequent invoice, the Subgrantee will be required to make payment arrangements with THDA for the questioned costs.

Compliance with Corrective Action Plans will be monitored through desk reviews, communication with the Subgrantee, and subsequent monitoring visits. Subgrantees with significant deficiencies identified may receive additional monitoring visits as necessary. Subgrantees who continue to have substandard performance that is not successfully addressed by corrective action may have funding reduced, be placed on probation or face termination and will no longer be allowed to participate in the program.

Reporting

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Within thirty (30) days from the end of the program year, THDA will create a report that provides a summary of each Subgrantee's financial reviews, program monitoring reports and any outstanding issues. This report will provide an overview of each Subgrantee's needs, strengths and weakness. This report will be utilized as a planning document and will be made available to DOE upon request.

As mandated by federal guidance, THDA will also provide to DOE a report that includes successes and significant problems identified through monitoring. This narrative report will be incorporated within the mandated *T&TA, Monitoring and Leveraging Report*. This annual report will be submitted within thirty (30) days from the end of the reporting period.

In addition to DOE reporting requirements related to monitoring, State Policy 22 requires an annual report of Subrecipient Monitoring. THDA will provide a summary of all Subgrantee monitoring, including findings and recommendations to the Tennessee Department of Finance and Administration.

Technical and Programmatic Monitoring Schedule

The monitoring will follow the quarterly schedule noted below and will also be based on production. Throughout the year we will monitor each Subgrantee at least once. Based on monitoring findings and outcomes, THDA will conduct additional visits as needed. Based on production, we will conduct annual program year monitoring visits for Subgrantees. Within thirty (30) days following every technical review, a report that details the findings of the visit, including any identified best practices will be provided to the Subgrantee agency. Should there be a significant delay to the thirty days, THDA will notify the Subgrantee with brief description and an alternate timeframe when the report will be delivered. The Subgrantee will be required to provide a written Corrective Action Plan (CAP), responding within (30) days, that addresses all identified findings and concerns. The CAP must provide the actions the local agency has taken or plans to take, along with a timeline for implementation, to address and alleviate the concerns. If the Subgrantee disagrees with any findings in the monitoring report, they may provide rebuttal as part of their CAP. The CAP is not final until it has been reviewed and all corrective action plans and/or rebuttals accepted by the Grantee.

Fiscal Monitoring is conducted by the THDA Internal Audit division and averages 12 Subgrantee visits per month. The THDA WAP monitoring tools can be found attached to the SF424. The THDA WAP Monitoring and Corrective Action procedures can also be found attached to the SF424.

First Quarter

None

Second Quarter

MCCAA, CMCCAA, DHRA, MDHA

Third Quarter

UCHRA, ETHRA, UETHDA, KKCCAC

Fourth Quarter

SETHRA, SCHRA, MHCD, SWHRA

V.8.4 Training and Technical Assistance Approach and Activities

Tennessee Housing Development Agency will ensure that all training paid for with WAP T&TA funds meet the requirements of WPN 22-4, Section 3: Workforce Training.

The major objective of Training and Technical Assistance is to provide Subgrantees with the information and training required to administer and operate in compliance with DOE and State WAP rules and regulations.

THDA will utilize the following to identify training opportunities: DOE monitoring, internal state audits, Grantee monitoring of the Subgrantees, Inspector General (IG) reports, and American Customer Satisfaction Index feedback. THDA has recognized and evaluated training needs based on monitoring reports and requirements. THDA will review all Subgrantee monitoring reports with our T&TA provider and trainings will be developed based on the needs of the Subgrantee and/or individuals.

THDA is currently seeking a new training provider via RFP process to obtain an IREC-accredited Comprehensive (Tier 1) and Specific (Tier 2) training

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provider.

Programmatic/Administration Training

Programmatic trainings are conducted by THDA staff during monitoring visits as issues are identified and as requested by the Subgrantees. The trainings will focus on areas of deficiency or new and updated policies. Programmatic trainings will occur annually at the current Program Year's workshop and will cover:

Production goals and ACPU

Client eligibility and application process

Budgets and invoices

WAPez data entry

Review of 2 CFR 200

Additionally, THDA is partnering with Clearesult to offer WAPez training for new state and agency staff. Refresher courses are available upon request and can be done virtually or in person.

Fiscal Training

Fiscal trainings are conducted by THDA staff during monitoring visits as issues are identified and as requested by the Subgrantees. These trainings will address issues associated with 2 CFR 200 to ensure Subgrantees are complying with procurement, contractual requirements, reporting, and allowable costs. Overall expenditures are reviewed during monthly/bi-monthly meetings with Subgrantee staff and THDA coordinators to identify any possible concerns in advance of the monitoring visits.

Technical Training

THDA's training plan will follow the Comprehensive (Tier 1) and Specific (Tier 2) training categories as outlined in the WPN 22-4 "Quality Work Plan" and will meet the National Renewable Energy Laboratory (NREL) Job Task Analysis (JTA) for which the worker is employed.

Subgrantees are encouraged to recertify their weatherization workers in accordance with this training plan, as needed, and at least 6 months prior to the expiration of the individuals' certification date to ensure an adequate supply of QCIs as well as all other occupational specialties requiring certification.

Subgrantees are strongly encouraged to have at least one QCI person on staff but some may contract with an independent QCI contractor and still others may use shared QCI resources from adjacent/network agencies. THDA is working with agencies on an individual basis to help in their process to fulfill necessary technical positions.

THDA and the training partner will review the Subgrantee's energy audits to check for consistency across Subgrantees. If an agency's average recommended measures produced limited ECMs compared to the average, inconsistent or incorrect audit inputs, etc., THDA will address this issue with increased training on the audit tool. THDA will discuss the importance of consistent and accurate energy audits.

Comprehensive Training must be completed at least every 2 years.

Quality Control Inspector

Training for the Quality Control Inspector Job Task will take place Fall 2024 and Spring 2025.

Continual QCI training will be conducted annually or, as needed, for new QCIs and for continuing education credits. QCI training is currently formatted as field mentoring. QCIs are shadowed by an inspector from our T&TA provider. Areas to be shadowed include inspections, energy audits, and work scope review.

Energy Auditor

Training for the Energy Auditor Job Task will take place Fall 2024 and Spring 2025. Energy Auditor training may be conducted in a classroom, as part of field mentoring, or a combination of both for current energy auditors and other qualified individuals within the THDA WAP network. Typical training duration for Energy Auditor certification is similar to QCI field mentoring as outlined in the previous section.

Mandatory Training for all WAP Energy Auditors and Quality Control Inspectors:

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- BPI EA and QCI certifications
- EPA Renovate, Repair, Painting - Certified Renovator
- OSHA 10
- Comprehensive Weatherization Assistant training

Workforce Credentials

All credentials and certifications obtained by Energy Auditors and QCIs are documented within WAPez and required to be maintained in good standing to be allowed to perform assigned work.

THDA WAP staff approves all new users and recertification requests and monitors the statuses of credentials including Federal, State and local requirements such as, but not limited to: Environmental Protection Agency (EPA) Renovate Right Procedures, Occupational Safety and Health Administration (OSHA), QCI certification) and Contractor licensing.

EA / QCI Training & Testing

Certification training typically consists of weeklong review consisting of a combination of classroom and field exercises and include all associated travel costs, regular staff wages during the training, books/materials etc. Costs also include all training and written/field exam fees for new auditors and auditors that are seeking certification. If Subgrantee staff is unable to pass the exam on the first attempt, the Subgrantee can request that the grantee pay for the second attempt. Permission to take the exam a second time will be granted after a satisfactory request is submitted. Subgrantees can also request for staff to attend additional training. If the auditor is unable to pass the exam after the additional training, the individual will be responsible to pay for the exam using other funding sources.

Retrofit Installer Technician Field Mentoring

Comprehensive RIT Training will continue to canvass across the state for all WAP approved contractors. THDA currently offers a modified version of Retrofit Installer Technician, labeled RIT Field Mentoring. Field mentoring is a weeklong training. The first day covers building science fundamentals, work scope interpretation and prep, material lists, etc. The remaining days are spent in the field at two actual client houses, preferably a site built and manufactured home. The training will include regional contractors from multiple companies hosted by a single agency within the training territory. The unit serving as the training house will be an actual weatherization client and the job will be awarded to a single contractor, as normal. THDA and the Subgrantee will receive a list of those contractors in attendance and use it as a reference when tracking future comprehensive trainings.

The RIT statewide training will be planned this upcoming program year for those contractors not receiving field mentoring in the past two program years. Subgrantees, or THDA, may request additional mentoring for a contractor on an as needed basis.

As stated in the previous Technical Monitoring section, THDA compensates contract workers who attend at a flat rate of \$150/inspection using T&TA funds. The compensation encourages contractors to attend hands-on training while being removed from other paid work for the day. This specific training may be used to address specific needs in certain and included as part of a contractor's comprehensive training requirement.

THDA is also experimenting on the use of the DOE adapted RIT Badges Passport system. We currently have asked one crew based Subgrantee to experiment with the system and offer their feedback on how to implement the system statewide. The system can serve as a condensed supplement to the Tennessee Weatherization Field Guide or as a component within the RIT comprehensive training curriculum.

Diagnostic training for contractors is also being developed in partnership with Tennessee Subgrantees and our T&TA provider, Community Housing Partners. The need for diagnostic training is heavily focused on our EAs and QCIs but often overlooked are the weatherization contractors who are a vital, indispensable piece of the weatherization program. Diagnostic training may consist of onsite, classroom (training house), or webinar training through our T&TA provider, Subgrantee QCIs, state QCIs, and/or various diagnostic supply houses.

Specific diagnostic trainings to be planned for the upcoming program year include blower door diagnostic setup and results analysis, duct leakage analysis, tool calibration requirements, and combustion safety instruction and diagnostic testing, to name a few.

T&TA funds can be used to compensate contractors during WAP training activities in the form of a stipend established in cooperation with the state and Subgrantee and as long as a current contractor retention agreement is in place. This must be requested by the Subgrantee and approved by THDA prior to compensation being made.

Specific Training

Single-issue, short-term, training to address acute deficiencies in the field such as dense packing, crawlspace, ASHRAE 62.22016, etc. Conference trainings are included in this category. Specific training is also implemented based on issues found during monitoring visits. Classes will be labeled as mandatory if there

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are multiple repeat findings due to lack of experience or training.

In addition to IREC accredited training providers, several nonIREC accredited training providers are located throughout the state/country (i.e. State, regional and/or nation meetings/conferences; Technical Colleges; other for/nonprofit organizations; etc.). Specific training courses are provided throughout the year and dependent upon the individual Training Providers' schedule. Subgrantees are reminded that any out of state training activities must be approved in advance by Tennessee Housing Development Agency.

The following organizations, agencies, and companies offer Specific training:

- Statewide WAP Meetings/Conferences
- Home Performance Conference
- Energy OutWest Conference
- CHP Energy Solutions Research and Training Center
- Southface Energy Institute
- Everblue Energy Inc.

Other for-profit and nonprofit Organizations Specific Training Courses including but not limited to:

- ASHRAE 62.2 (2016) Residential Ventilation
- Audit Assessment
- Blower Door & Duct Testing
- Building Science
- CAZ Zone Pressure Diagnostics
- Client Education
- CPR & Standard First Aid
- Crew Leader
- Dense Pack Walls
- Diagnostics Energy Auditor Testing Equipment
- HVAC Fundamentals
- Infrared Thermography
- LeadSafe Weatherization
- Manufactured Housing Fundamentals
- NEAT/MHEA
- OSHA 10 Construction
- EPA Certified Renovator Initial Course
- Retrofit Installer Technician Online
- Weatherization Management

Specific Training that may be incorporated as part of a larger comprehensive training plan includes technical assistance provided to EAs, QCIs, and contractors while on-site during quality assurance inspections. THDA allows for subgrantee staff salary to be funded through T&TA while attending specific and comprehensive WAP related trainings.

The contracted T & TA provider will assist in the following: Implementation of a Quality Work Plan, assessment of readiness for QCI examination, and the development of training plan, including but not limited to training outlined above, as well as Comprehensive and Specific training.

Marketing and Training of New Technical Workers

Tennessee's weatherization program has experienced challenges of replenishing its technical worker base over the past three program years. Recognizing this challenge and knowledge gap, THDA has created a Technical Advisory Group of voluntary program members to provide insight and suggestions to help devise planning and program solutions towards the issue of technical staff capacity.

Based on these quarterly group discussions, THDA has outlined a skeleton draft of steps for new auditors, inspectors, and weatherization workers to begin working in the weatherization program. We understand the required certification process is the first step and a "soft release" into conducting fieldwork is necessary to build worker confidence and technical knowledge. The drafted outline consists of a balanced approach of check and balances. First being, the new technical worker may participate in shadowing a more experienced WAP energy auditor or QCI. The individual will also receive access to a practice version of WAPez where they can become familiar with the system and how NEAT/MHEA inputs interact with one another. Assessments will be conducted along the way to determine proficiency and from there, the worker may begin solo fieldwork.

Marketing to weatherization contractors, or those interested in weatherization work, is another challenge. This is an issue raised within the advisory group,

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as well as at national conferences. THDA is building upon these conversations in hopes of developing a marketing toolkit. Subgrantees will use the provided content, such as branding, one sheets, program statistics, to garner local industry interest to potentially bring on as approved weatherization contractors, crews, energy auditors, and or inspectors.

Client Education

Energy efficiency education occurs throughout weatherization services as described in previous sections. Energy auditors distribute Tennessee Valley Authority funded energy kits to client which include LED bulbs, outlet gaskets, and energy saving tips. Clients also receive an assortment of healthy home brochures included EPA's Mold & Moisture in Your Home, Renovate Right: Lead Based Paint Activities, and the Citizen's Guide to Radon.

THDA also created a Client Education Checklist for the auditor and client to work through step by step prior to the audit as well as during the quality control inspection.

Energy Savings Comparison Analysis of Subgrantees

Analysis of energy savings is currently conducted by THDA on multiple levels. Through THDA's partnership with the Tennessee Valley Authority, an estimation of energy savings report is compiled by TVA at the close of each federal fiscal year. The report details estimates of energy savings organized by commonly installed weatherization measures such as attic insulation and air sealing, as well as equipment such as HVAC systems and water heaters. THDA can use this information as a foundation when comparing energy savings of individual units to the report averages during onsite and desktop monitoring.

The program's reporting platform, WAPez, has also added greater accessibility to estimated energy savings pulled from the Recommended Measures report within the Weatherization Assistant. Information gathered at this level will easily allow THDA to conduct timely comparisons of energy savings across Subgrantees and to national averages.

A number of variables influence energy savings from unit to unit, agency to agency. Considering size and dwelling type, auditor experience and accuracy, effectiveness of client education, among other things all contribute to both the estimated and actual energy savings. Using the aforementioned comparison analysis of energy savings will help highlight training needs across the network.

Additional Programmatic, Financial, Management Training Opportunities

Subgrantees are permitted to seek additional training avenues if sufficient justification can be presented on how said training would benefit the weatherization program. Training requests must be submitted to THDA for review and approval prior to the training.

Percent of overall trainings

Comprehensive Trainings:	50.0
Specific Trainings:	50.0

Breakdown of T&TA training budget

Percent of budget allocated to Auditor/QCI trainings:	40.0
Percent of budget allocated to Crew/Installer trainings:	55.0
Percent of budget allocated to Management/Financial trainings:	5.0

V.9 Energy Crisis and Disaster Plan

THDA WAP is in compliance with the event of a natural disaster that impacts the operations of the Weatherization Assistance Program, the following disaster plan will be enacted. The following plan will be executed upon a federal or state declaration of disaster for a specific area within the state.

- Identify those current clients who reside in a disaster area. A current client is one who has applied for and been determined eligible for the Weatherization Assistance Program.
- If the client resides in a disaster area, the WAP agency must contact the client to determine if the home has sustained any damage. If the client states the home was not damaged in the disaster, document the case file to reflect their statement, along with the date of the contact and the name of the agency representative who spoke to the client. No further action is required, and standard WAP procedures will be followed.
- If the client states damage occurred, document the contact in the client file, and follow the disaster plan guidance based on the current job status for the home.

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Job Not Yet Begun – Home Still on Wait List

The job is not considered to have begun if the applicant has been approved for the WAP, but is still on the wait list pending selection for service. Contact the applicant to determine if damage has occurred to the home. If there is no damage, document the case file, and no further action is required. If the home is destroyed or condemned, or if the applicant has moved without intending to return once repaired, terminate the WAP case.

If the home is damaged and requires repair, the home remains on the wait list. Determine if the home is eligible for extra priority points as a result of the disaster and adjust accordingly. Document the client file with relevant information and action taken.

Jobs in Process

Identify those current clients who have a WAP job in process. A job is considered to be in process if any of the following actions have taken place:

- An energy audit has been completed;
- The job has been awarded to a contractor;
- Installation of weatherization measures has begun

However, there has not been a completed and passed QCI performed by the Subgrantee for these jobs, nor has the job been closed or marked as completed.

Home Damaged; Job Not Yet Awarded or Begun

If the home had an energy audit performed, but the job has not yet been awarded, do not award the job. If it is determined that the home was destroyed or condemned, or if the client is no longer residing in the home and does not intend to return once repaired, close the case and document the file.

If the home was not destroyed, conduct another energy audit to determine if the condition of the home permits the weatherization work to continue, and the weatherization measures to be installed. If home repairs are necessary due to damage, these repairs are to be completed utilizing funds other than DOE (insurance, disaster relief funds, personal funds or loans, funds from other programs, etc.) prior to the energy audit being performed.

The weatherization measures work may be deferred pending repair. Upon repair, the home may be audited, and the weatherization work may proceed based on the current audit recommendations and following current WAP guidelines and policies.

Home Damaged: Job Had Been Awarded, But Not Yet Completed with Final Inspection

If the installation of weatherization measures was in process (work had begun, but the quality control inspection had not been completed), and the contractor had not yet completed the work, determine if home was destroyed. If destroyed, the contractor is to invoice the agency for only those measures installed in the home at the time of the disaster. No post inspection is required, but the agency must confirm the home was destroyed and an audit is not possible due to damage. This home cannot be counted as a completed unit; however DOE Weatherization funds may be used to pay for audit and contractor costs.

If the home was not destroyed, and repairs are necessary due to damage, these repairs are to be completed utilizing other funding sources. Another energy audit will be required once repaired to establish the current status of the home, and the appropriate energy measures based on that status.

The job may need to be deferred until necessary renovations are completed prior to weatherization taking place. The contractor may be paid for all measures installed at the point of the disaster, with a QCI to be conducted on the measures if possible. It may be necessary to rebid the job if the work to be performed changes significantly or there is a long delay before the job can be finished while waiting on repairs. Do not close the job until all weatherization work is completed. Depending on the amount of work to be performed following the disaster, the job may need to be rebid.

Items that had been installed but were subsequently destroyed due to the natural disaster and not covered by the homeowner's insurance or other funding sources, including disaster relief benefits, may be included in the subsequent audit and work order. The change order process must be followed to accommodate the newly defined measures. Please note: Throughout this process, DOE funds may only be used for those energy related incidental repairs. WAP is not designed to be a renovation program.

Home Damaged: Reweathering of Previously Completed Units

A home that has been weatherized prior to the disaster, but which was damaged by a federal or state declared disaster, may reapply for re weatherization services without regard to the date previously weatherized. A new energy audit is required. All other eligibility conditions will apply, and the job must be reported as a reweatherization.

Additional Priority Provided

U.S. Department of Energy
Weatherization Assistance Program (WAP)
STATE PLAN / MASTER FILE WORKSHEET
Grant Number: EE0009932, **State:** TN, **Program Year:** 2024
Recipient: State of Tennessee

Current clients in a disaster area may be provided priority services, with 15 additional points provided to disaster victims. These points are added to the points already provided to vulnerable household members as part of the priority point system. Additional priority points will only be provided upon verification of a FEMA assigned number for that client/residence for the specific disaster.

New applications for WAP following a disaster may also receive an additional 15 priority points as a disaster victim provided:

- The existing structure was damaged (not destroyed or condemned) in the disaster, and;
- The application is received within four (4) months from the date the disaster occurred, and;
- The applicant provided verification of an assigned FEMA number for the specific disaster.

Points to Remember

- If a weatherization job that was in process or completed was damaged in the natural disaster, the subgrantee must determine if the homeowner has insurance or other funds available to cover the costs of repairs. Weatherization funds may not be used if the damage was covered by insurance or other funding sources. Weatherization funds may only be used to address eligible weatherization activities, as currently allowed in Tennessee's policies and procedures.
- If possible, local agencies will coordinate the weatherization work efforts for the home to gain efficiencies. This does not negate the requirement to perform an energy audit based on current unit circumstances.
- Personnel that are paid from DOE funds are not allowed to perform disaster relief work in the community. They are permitted to perform work related to protecting the DOE investment, such as securing and protecting weatherization materials and equipment and agency program files and records when the disaster initially occurs.
- The maximum amount of funds that may be spent per unit is capped at \$8,497.00. This includes both pre-disaster and post-disaster work with the exception of jobs that are considered re weatherization. This cap may only be exceeded with prior approval from the State.