

BUDGET INFORMATION - Non-Construction Programs

| | | | |
|---|--|--|----------------------------------|
| 1. Program/Project Identification No. EE0010017 | | 2. Program/Project Title Weatherization Assistance Program: Bipartisan Infrastructure Law | |
| 3. Name and Address State of Tennessee Andrew Jackson Building Nashville, TN 372430900 | | 4. Program/Project Start Date 07/01/2022 | 5. Completion Date 06/30/2027 |

SECTION A - BUDGET SUMMARY

| Grant Program Function or Activity (a) | Federal Catalog No. (b) | Estimated Unobligated Funds | | New or Revised Budget | | |
|--|-------------------------|-----------------------------|-----------------|-----------------------|-----------------|------------------|
| | | Federal (c) | Non-Federal (d) | Federal (e) | Non-Federal (f) | Total (g) |
| 1. PY2022 WAP INFRASTRUCTURE FUND | 81.042 | \$ 0.00 | | \$ 66,347,259.00 | | \$ 66,347,259.00 |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |
| 5. TOTAL | | \$ 0.00 | \$ 0.00 | \$ 66,347,259.00 | \$ 0.00 | \$ 66,347,259.00 |

SECTION B - BUDGET CATEGORIES

| 6. Object Class Categories | Grant Program, Function or Activity | | | | Total (5) |
|----------------------------|-------------------------------------|--------------------------------|------------------|------------------------|------------------|
| | (1) GRANTEE ADMINISTRATI ON | (2) SUBGRANTEE ADMINISTRATI ON | (3) GRANTEE T&TA | (4) PROGRAM OPERATIONS | |
| a. Personnel | \$ 1,425,000.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 1,425,000.00 |
| b. Fringe Benefits | \$ 406,125.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 406,125.00 |
| c. Travel | \$ 0.00 | \$ 0.00 | \$ 1,177,645.00 | \$ 0.00 | \$ 1,177,645.00 |
| d. Equipment | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| e. Supplies | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| f. Contract | \$ 449,640.00 | \$ 7,205,573.00 | \$ 4,624,173.00 | \$ 44,791,534.00 | \$ 62,965,364.00 |
| g. Construction | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| h. Other Direct Costs | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| i. Total Direct Charges | \$ 2,280,765.00 | \$ 7,205,573.00 | \$ 5,801,818.00 | \$ 44,791,534.00 | \$ 65,974,134.00 |
| j. Indirect Costs | \$ 373,125.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 373,125.00 |
| k. Totals | \$ 2,653,890.00 | \$ 7,205,573.00 | \$ 5,801,818.00 | \$ 44,791,534.00 | \$ 66,347,259.00 |
| 7. Program Income | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |

BUDGET INFORMATION - Non-Construction Programs

| | | | |
|---|--|--|----------------------------------|
| 1. Program/Project Identification No. EE0010017 | | 2. Program/Project Title Weatherization Assistance Program: Bipartisan Infrastructure Law | |
| 3. Name and Address State of Tennessee Andrew Jackson Building Nashville, TN 372430900 | | 4. Program/Project Start Date 07/01/2022 | 5. Completion Date 06/30/2027 |

| SECTION A - BUDGET SUMMARY | | | | | | |
|---|-------------------------------|-----------------------------|--------------------|-----------------------|--------------------|------------------|
| Grant Program Function or Activity (a) | Federal Catalog No. (b) | Estimated Unobligated Funds | | New or Revised Budget | | |
| | | Federal (c) | Non-Federal (d) | Federal (e) | Non-Federal (f) | Total (g) |
| 1. | | | | | | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |
| 5. TOTAL | | \$ 0.00 | \$ 0.00 | \$ 66,347,259.00 | \$ 0.00 | \$ 66,347,259.00 |

| SECTION B - BUDGET CATEGORIES | | | | | |
|-------------------------------|-------------------------------------|--------------------------|-------------------------|-----|------------------|
| 6. Object Class Categories | Grant Program, Function or Activity | | | | Total (5) |
| | (1) SUBGRANTEE T&TA | (2) HEALTH AND SAFETY | (3) FINANCIAL AUDITS | (4) | |
| a. Personnel | \$ 0.00 | \$ 0.00 | \$ 0.00 | | \$ 1,425,000.00 |
| b. Fringe Benefits | \$ 0.00 | \$ 0.00 | \$ 0.00 | | \$ 406,125.00 |
| c. Travel | \$ 0.00 | \$ 0.00 | \$ 0.00 | | \$ 1,177,645.00 |
| d. Equipment | \$ 0.00 | \$ 0.00 | \$ 0.00 | | \$ 0.00 |
| e. Supplies | \$ 0.00 | \$ 0.00 | \$ 0.00 | | \$ 0.00 |
| f. Contract | \$ 2,876,052.00 | \$ 2,925,766.00 | \$ 92,626.00 | | \$ 62,965,364.00 |
| g. Construction | \$ 0.00 | \$ 0.00 | \$ 0.00 | | \$ 0.00 |
| h. Other Direct Costs | \$ 0.00 | \$ 0.00 | \$ 0.00 | | \$ 0.00 |
| i. Total Direct Charges | \$ 2,876,052.00 | \$ 2,925,766.00 | \$ 92,626.00 | | \$ 65,974,134.00 |
| j. Indirect Costs | \$ 0.00 | \$ 0.00 | \$ 0.00 | | \$ 373,125.00 |
| k. Totals | \$ 2,876,052.00 | \$ 2,925,766.00 | \$ 92,626.00 | | \$ 66,347,259.00 |
| 7. Program Income | \$ 0.00 | \$ 0.00 | \$ 0.00 | | \$ 0.00 |

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WEATHERIZATION ANNUAL FILE WORKSHEET**

(Grant Number: EE0010017, State: TN, Program Year: 2022)

IV.1 Subgrantees

| Subgrantee (City) | Planned Funds/Units |
|--|--|
| International Center for Appropriate and Sustainable Technology (Lakewood) | \$57,891,551.00 6,000 |
| Total: | \$57,891,551.00 6,000 |

IV.2 WAP Production Schedule

| Weatherization Plans | | Units |
|---|---|-----------------|
| Total Units (excluding reweatherized) | | 6,000 |
| Reweatherized Units | | 0 |
| Average Unit Costs, Units subject to DOE Project Rules | | |
| VEHICLE & EQUIPMENT AVERAGE COST PER DWELLING UNIT (DOE RULES) | | |
| A | Total Vehicles & Equipment (\$5,000 or more) Budget | \$0.00 |
| B | Total Units Weatherized | 6,000 |
| C | Total Units Reweatherized | 0 |
| D | Total Dwelling Units to be Weatherized and Reweatherized (B + C) | 6,000 |
| E | Average Vehicles & Equipment Acquisition Cost per Unit (A divided by D) | \$0.00 |
| AVERAGE COST PER DWELLING UNIT (DOE RULES) | | |
| F | Total Funds for Program Operations | \$44,791,534.00 |
| G | Total Dwelling Units to be Weatherized and Reweatherized (from line D) | 6,000 |
| H | Average Program Operations Costs per Unit (F divided by G) | \$7,465.26 |
| I | Average Vehicles & Equipment Acquisition Cost per Unit (from line E) | \$0.00 |
| J | Total Average Cost per Dwelling (H plus I) | \$7,465.26 |

IV.3 Energy Savings

| | | | | |
|---|---------------------|-------|----------------------------|----------------|
| Method used to calculate savings: <input checked="" type="checkbox"/> WAP algorithm <input type="checkbox"/> Other (describe below) | | | | |
| | | Units | Savings Calculator (MBtus) | Energy Savings |
| | This Year Estimate | 6000 | 29.3 | 175800 |
| | Prior Year Estimate | 1445 | 29.3 | 42338 |
| | Prior Year Actual | 269 | 29.3 | 7882 |
| Method used to calculate savings description: | | | | |
| | | | | |

IV.4 DOE-Funded Leveraging Activities

Conversations are in progress regarding leveraging other funds from TVA or organizations.

IV.5 Policy Advisory Council Members

Check if an existing state council or commission serves in this category and add name below

 | Type of organization: Unit of Local Government

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| | |
|---------------------------|---|
| City of Memphis | Contact Name: Chad Bowman Phone: 9015767366 Email: Chad.bowman@memphistn.gov |
| Coalition For Home Repair | Type of organization: Non-profit (not a financial institution) Contact Name: Becca Davis Phone: 4232251814 Email: becca@coalitionforhomerepair.org |
| Erik Daugherty | Type of organization: For-profit or Corporate (not a financial institution or utility) Contact Name: Phone: (615)876-5479 Email: erik@E3Innovate.com |
| Frank Rapley | Type of organization: Unit of Federal Government Contact Name: Phone: (615)232-6673 Email: fmrapley@tva.gov |
| Jeffrey Vincent | Type of organization: Unit of Local Government Contact Name: Phone: 8652443080 Email: jeffrey.vincent@cachousing.org |
| Lucile Houseworth | Type of organization: Non-profit (not a financial institution) Contact Name: Phone: 6159421250 Email: lhouseworth@habitatnashville.org |
| Mark Straub | Type of organization: Other Contact Name: Phone: 4236348955 Email: mstraub@penrose.com |
| Molly Cripps | Type of organization: Unit of State Government Contact Name: Phone: 8888918332 Email: molly.cripps@tn.gov |
| Tommy Simcox | Type of organization: Non-profit (not a financial institution) Contact Name: Phone: 9318237323 Email: tsimcox@uchra.com |

IV.6 State Plan Hearings (Note: attach notes and transcripts to the SF-424)

| Date Held | Newspapers that publicized the hearings and the dates the notice ran |
|------------|--|
| 11/08/2022 | THDA notified its Tennessee Association of Community Action Board of Directors and Executive team of the WAP-BIL Program and our plans to administer the program through one subgrantee across the state to weatherize multifamily units. |
| 12/16/2022 | THDA shared its draft WAP-BIL Master Plan with its PAC and THDA staff from Community Programs and multifamily division for feedback. |
| 01/11/2023 | THDA had a WAP-BIL meeting with its existing WAP network to walk them through the program and our plans to administer the program through one subgrantee across the state to weatherize multifamily units. |
| 01/17/2023 | Public notice of the WAP-BIL Application was provided by posting the draft application on the THDA website. It was also shared with the Energy Efficiency PAC team, the WAP Subgrantees and we had a formal input meeting with the WAP network. The WAP-BIL application and notice was posted on the www.thda.org website on 01/04/2023. |

IV.7 Miscellaneous

| |
|--|
| <p>The Policy Advisory Council (PAC): To the extent possible, THDA's PAC advocates for and provides a broad representation of 'At Risk' and 'Low income' populations such as but not limited to children, elderly, Persons with Disabilities, and Native Americans.</p> <p>THDA will incorporate Davis Bacon requirements into its program management and accounting/tracking systems.</p> <p>Any BIL funded weatherization work on multifamily buildings with no fewer than 5 units will be required to pay wages to all laborers and mechanics engaged in the construction, alteration, or repair of those multifamily buildings (whether employed by a contractor or subcontractor) wages "at rates not less than those</p> |
|--|

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prevailing on similar projects in the locality, as determined by the Secretary of Labor.” DOE will issue additional guidance as soon as it is available.

THDA is prepared to implement the Buy American Provisions per Department of Energy guidelines when they are available.

THDA is prepared to purchase domestically manufactured iron, steel, manufactured goods, or construction materials when Department of Energy guidelines become available.

Fuel Switching requests within the network will be reviewed on a case by case basis to determine cost effectiveness.

Recipient Business Officer: Ralph M. Perrey, RPerrey@thda.org, (615) 815-2200

Recipient Principal Investigator: Cynthia Peraza CPeraza@thda.org, (615) 815-2112

Address for both:

Tennessee Housing Development Agency

502 Deaderick Street, 3rd Floor

Nashville, TN 37243

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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

Definition for Terms used under the Weatherization Assistance Program Bipartisan Infrastructure Law ("WAP-BIL"):

- * An applicant is defined as a property owner or landlord of a multifamily building.
- * A landlord is defined as the individual or entity authorized to represent or act on behalf of the property owner.
- * A client/**tenant** or household is defined as the individual or family occupying the unit being weatherized.
- * A project is defined as a multifamily building(s) being weatherized under the WAP-BIL.
- * A unit is defined as an individual dwelling within a multifamily building.

Definition for Client Eligibility

For a dwelling unit to be eligible for the WAP-BIL assistance, it must be occupied by a household who meets one of the following two criteria:

1. Income eligible - Total annualized income of the household residing in the dwelling to be weatherized is at or below 200% of the poverty level determined in accordance 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 within 12-months from the date of application:

- Supplemental Nutrition Assistance Program ("SNAP")
- Low Income Home Energy Assistance ("LIHEAP")
- Tennessee Head Start
- Social Security Disability Income ("SSDI") - for head of household or single parent
- Supplemental Social Income ("SSI") – issued through the Title XVI of the Social Security Act
- Families First/ Temporary Assistance for Needy Families ("TANF") - for head of household
- Women, Infants, and Children benefits ("WIC") - for households with 3 or fewer members
- Housing Choice Voucher/Section 8 Rental Assistance

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

When considering earned income from salaries and wages, all pay periods must be accounted for in the period used to establish eligibility.

INCOME - Income means Cash Receipts earned and/or received by the applicant before taxes during applicable tax year(s) but not the Income Exclusions listed below in Section B.

A. CASH RECEIPTS:

Cash Receipts include the following:

1. Money, wages and salaries before any deductions;
2. Net receipts from non-farm or farm self-employment (receipts from a person's own business or from an owned or rented farm after deductions for business or farm expenses);
3. Regular payments from social security, railroad retirement, unemployment compensation, strike benefits from union funds, worker's compensation, veteran's payments, training stipends, alimony, and military family allotments.
4. Current documentation for Categorical Eligibility cash assistance payments listed under Eligibility, Item 2.

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- 5. Private pensions, government employee pensions (including military retirement pay), and regular insurance or annuity payments;
- 6. Dividends and/or interest;
- 7. Net rental income and net royalties;
- 8. Periodic receipts from estates or trusts; and
- 9. Net gambling or lottery winnings.

B. ZERO INCOME/SELF-CERTIFICATION:

For applications where households report zero income, the Subgrantee will be required to ask additional questions to determine how the household is surviving on no income. The self-certification of income form must be signed and notarized by the applicant if zero income is reported for the applicant or any household member 18 years or older.

C. INCOME EXCLUSIONS:

The following Cash Receipts are not considered sources of Income for the purposes of determining applicant eligibility:

- 1. Capital gains;
- 2. Any assets drawn down as withdrawals from a bank;
- 3. Money received from the sale of a property, house, or car;
- 4. One-time payments from a welfare agency to a family or person who is in temporary financial difficulty;
- 5. Tax refunds;
- 6. Gifts, loans, or lump-sum inheritances;
- 7. College scholarships;
- 8. One-time insurance payments, or compensation for injury;
- 9. Non-cash benefits, such as the employer-paid or union-paid portion of health insurance;
- 10. employee fringe benefits, food or housing received in lieu of wages;
- 11. The value of food and fuel produced and consumed on farms;
- 12. The imputed value of rent from owner-occupied non-farm or farm housing;
- 13. Depreciation for farm or business assets;
- 14. Federal non-cash benefit programs such as Medicare, Medicaid, Food Stamps, school lunches, and housing assistance;
- 15. Earned income for a child under the age of 18;
- 16. Combat zone pay to the military;
- 17. Payor: Where an applicant pays Child Support through a state program and/or to an individual, such assistance is not considered a deduction to Income for the purposes of determining eligibility
- 18. Reverse mortgages; and
- 19. Payments for care of Foster Children.

Describe what household eligibility basis will be used in the Program

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For a project to be deemed eligible for the WAP-BIL, the following documentation must be provided:

- i) A completed and signed application;
- ii) Proof of household income;
- iii) Verification of residency for the unit being weatherized;
- iv) Proof of ownership for the project; and
- v) Meet the income eligibility criteria as defined in Section V.1.1.
- vi) Meet the Project Eligibility Standards for the percentage of units being weatherized as defined in Section V.1.2.

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

An approved client 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 client must show continued eligibility. Weatherization work will begin on the date a complete audit is performed.

Program Notices from DOE will indicate an effective date of any revised poverty guidelines.

Before services can be provided, the multifamily building must be determined to meet minimum eligibility standards regarding the number of units with eligible tenants. These standards are:

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

CITIZENSHIP

The WAP-BIL client must be a U.S. citizen or legal alien. Documentation of citizenship is required for every client, without regard to race, religion, gender, ethnicity or national origin, per the Tennessee Eligibility Verification for Entitlements Act <https://law.justia.com/codes/tennessee/2018/title4/chapter58/section458103/>.

This applies to any application or recertification application filed on October 1, 2012 or later.

If the client is a U.S. citizen, acceptable forms of verification include a valid driver license or photo identification license issued by the Tennessee Department of Safety and Homeland Security or other documentation as detailed in the Manual.

Citizenship will only be verified for the client if considered questionable. If the client is a legal alien, alien status must be verified as a condition of eligibility. Any illegal aliens residing in the home will not be considered when determining the income limits based on household size. However, any income of an illegal alien who is a household member will be counted as available to the home when determining eligibility. "Tennessee Eligibility for Verification Entitlements Act". <https://law.justia.com/codes/tennessee/2018/title4/chapter58/section458103/>

If the client claims legal alien status, the following documentation is required:

- Two (2) forms of documentation of identity and immigration status, as determined by the United States Department of Homeland Security to be acceptable for verification through the SAVE program.
- If the client is unable to provide two (2) forms of acceptable documentation, then the client must present at least one (1) document that can then be verified through the SAVE program.

Citizenship status must be declared on the application form for all additional household members, but it does not have to be verified. Any household member who is not a U.S. Citizen or legal alien by their own statement will not be included when determining the number of eligible household members in the homes. However, any income they have from countable sources will be considered as available in its entirety to the household when determining household income.

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RESIDENCY

All applicants must be residents of Tennessee, and all units to be weatherized must be located in Tennessee.

V.1.2 Approach to Determining Building Eligibility

Procedures to determine that units weatherized have eligibility documentation

Every applicant must complete and sign an application for the WAP-BIL and a copy of the application must be retained in the subgrantee's client file. The application must include income and demographic information for all members that reside in the unit.

****Eligible Structures include multifamily buildings of 5+ units and shelters.**

Documentation may be retained in hard copy or through electronic storage methods. The subgrantee is required to maintain a client file for every applicant. The client file will be retained for 5 years from the date the grant is closed – this includes units where weatherization services have been provided, or closed due to subsequent ineligibility or other reasons. The subgrantee must maintain an ongoing file of all units that have received weatherization services, including the date the services were provided, in the event of a future reapplication for services.

****Multifamily buildings that have been deemed to meet the eligibility guidelines based on: i) HUD approved property certification; ii) THDA approved property certification; or iii) standard means of verifying eligibility through a Multifamily WAP-BIL Application.**

The building owner/representative may also be required to furnish all required resident documentation related to the individual unit, household demographics, and income as part of the application process or certify Income Eligibility for residents in the building.

Income documentation does not need to be retained by the subgrantee if the property meets WAP-BIL eligibility per the HUD property certification or THDA eligibility certification process.

****Shelter buildings income documentation requirements will be:**

A statement from the Shelter management or owner that identifies the target population served and entrance criteria will serve as income verification for shelters. The entrance criteria must serve a population at or below 200 percent of the poverty level determined in accordance with criteria established by the Director of the Office of Management and Budget. The subgrantee may count each 800 square feet of the shelter as a dwelling or each floor of the shelter may count as one dwelling unit.

Calculation of Income

Income eligibility is based on the countable household income for the twelve (12) month period preceding the application, or recertification. Countable income that may have terminated during this timeframe is still countable.

Income documentation must be obtained for a three (3) month period of time preceding or during the time of application processing. Income that was only received during a portion of the twelve-month period may be prorated to reflect actual gross amount received during the timeframe. The income verification will then be converted to an annual income amount. If an individual is ineligible based on three (3) months of income verification that is converted to an annualized amount, the household has the option to provide income documentation for the entire year.

Eligibility will be reviewed on an annual basis for any applicant who has been approved for the program, but who has not had weatherization services initiated. Weatherization services are considered initiated once an energy audit is assigned to a unit. At this point, annual recertification is no longer required. Any applicant that fails to comply with the annual recertification process or who is determined to no longer meet program eligibility guidelines, will have their case terminated, and will be removed from the wait list.

Describe Reweatherization compliance

Multifamily units weatherized (including units partially weatherized) under the WAP-BIL, or under other Federal programs (in this paragraph referred to as 'previous weatherization'), may not receive further financial assistance for weatherization services until fifteen (15) years after the date that the previous weatherization services were completed.

This paragraph does not preclude units that have received previous weatherization services from receiving assistance and additional services, (including the provision of information and education to assist with energy management and evaluation of the effectiveness of installed weatherization materials) other than weatherization under the WAP-BIL or under other Federal programs, or from receiving non-Federal assistance for weatherization. Unless it has been declared a Federal or State Natural Disaster area, the building has been damaged by fire, flood, or an act of God, and repair of the damage to the weatherization materials is

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not paid for by insurance or other funds. The building must also have been deemed salvageable by the local authorities.

Multifamily units that received services under the Weatherization Assistance Program ("WAP") that are eligible to receive services again must have a new energy audit conducted, which takes into account the current building status.

Reweathering building units must be tracked by the subgrantee and reported separately.

Describe what structures are eligible for weatherization

A shelter that is located in the State of Tennessee and is not owned by the Subgrantee, is considered an eligible building so long as the management or owner can certify the population it serves is at or below 200 percent of the poverty level.

A multifamily building that will be weatherized through the WAP-BIL must be the primary residence of a low-income household.

The client may own or rent the unit that is to be weatherized. If the client is renting the unit, the building owner must agree to have the building weatherized and must sign a landlord agreement. Ownership of the building must be documented. The property must be located in Tennessee. The unit may be a stick built or prefabricated building.

Units that received services under the WAP and are eligible to receive assistance through WAP-BIL must have a new energy audit conducted.

A multifamily unit is not eligible for weatherization services, based on an applicant statement or other known information or documentation, if any of the following situations apply to the property:

- Currently listed for sale, through either a real estate agent or privately;
- Condemned or in the process of being condemned;
- Unoccupied (other than a temporary absence);
- Secondary or vacation home;
- Designated for acquisition or clearance by a Federal, State or local program
- The resident has been or is in the process of being evicted;
- The property has been foreclosed or is in the process of foreclosure;
- Client is deceased or no longer residing in the home, and a spouse does not currently reside in the unit who is willing to assume applicant status;
- Property owner refuses to allow removal of unvented space heater that serves as primary heating source; or
- The property has been weatherized using federal funds within the past 15 years from application date.

If any of the above circumstances become known to the Grantee or Subgrantee for either a pending or approved applicant, the application will be denied, or the case will be terminated with no further services to be continued or provided. If the unit is in the process of having weatherization services installed, each unit must be evaluated on a case-by-case basis to determine the best way to bring closure. Typically, measures that have already been initiated by the weatherization installer will be completed and inspected, along with related health and safety or repair measures.

Tennessee will exercise caution in dealing with nontraditional type dwelling units such as mixed-use apartments, apartments over businesses, or other unique dwellings to ensure they meet programmatic regulations on whether the unit is, in fact, eligible.

Consideration for weatherizing these types of units must be discussed with THDA, if necessary, approved by the DOE Project Officer prior to weatherization.

Describe how Rental Units/Multifamily Buildings will be addressed

Multifamily Buildings

For the purposes of the WAP-BIL, 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.

Multifamily units are defined as the following:

- Residential buildings with 25+ units or are more than three stories and are referred to as large multifamily buildings;
- Residential buildings with 5 to 24 units that are three stories or fewer and are referred to as small multifamily or low-rise multifamily buildings; and

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- Multi-unit buildings with fewer than 5 units are called 2-4 units buildings.

Minimum Unit Eligibility Standards

Before services can be provided, the multifamily building must be determined to meet minimum eligibility standards regarding the number of units with eligible tenants. These standards 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.

Multifamily building eligibility can be verified using one of two methods:

1. Standard verification process for buildings *not assisted* through HUD;

OR

2. Verifying using an expedited process for qualified HUD assisted buildings.

The expedited process was created by HUD and is described below:

To ensure that a multifamily building meets the income eligibility requirements set by DOE pursuant to the certification process established by HUD, property owners and managers shall submit two documents to HUD:

- 1) a U.S. Department of Housing and Urban Development Multifamily Certification of Income Eligibility for the Department of Energy's Weatherization Assistance Program form that specifies that the building in question meets DOE's income eligibility requirements; and
- 2) a Property Occupancy Report from current property records that confirm compliance with DOE's income eligibility requirements.

The building is still subject to all other eligibility requirements.

For a building not included on one of the DOE published lists, eligibility for residents of the units must be determined to establish if the minimum number of units for the size of the building meet the income guidelines. Unoccupied units at the time of eligibility determination cannot be used to meet the minimum occupancy standards, unless designated as occupied by income eligible tenants within 180 days or less. Unoccupied units are still counted in the total number of units within the building. If the minimum occupancy eligibility standards are not met, then no unit within the building may receive weatherization services under the program.

The building owner(s), or their authorized agent, must complete and comply with a multifamily building landlord agreement. The owner of a multifamily building with renter occupied units will be encouraged to contribute five (5%) of the cost of the weatherization services under the program. The owner's contributions can be used to cover weatherization eligible or ineligible costs. The decision on how to utilize the funds will be decided at the time of eligibility review.

No undue or excessive enhancements shall occur to the value of the building as a result of the weatherization services provided. Once services have been provided, the building owner may not increase the current rent charged per unit within the building for a minimum of three (3) years, unless the increase was due to a scheduled rent increase previously agreed to by both parties in a ratified Lease or Rental Agreement. The benefits of the weatherization work must accrue to the tenants, as outlined in the Multifamily Building Agreement.

If services are provided, the weatherization of the entire building must be addressed, to include both common areas and residential living space. The maximum amount of DOE funds that can be spent will be \$8,009.00 multiplied by the number of residential units currently occupied by eligible households as established by the subgrantee. If sufficient funds are not available to address the entire building when it is selected, then the building must remain on the wait list until funding is available or until the owner is willing to cover the cost of the shortage.

Eligible multifamily buildings consisting of 5 or more units will be sent to the DOE Project Officer to review before the weatherization services are initiated. Multifamily buildings consisting of 4 or less units will need project approval from THDA's Technical Advisor over Weatherization Programs or the Technical Advisor over Construction Programs. THDA's Advisors will review internally or submit project documents to be reviewed by a third-party technical partner, if necessary.

Describe the deferral Process

Deferral:

The decision to defer or terminate weatherization services to an eligible low-income household is difficult but necessary in some cases. Many problems encountered in low-income housing is beyond the scope of the weatherization program. When a weatherization project is deferred, work must be postponed until certain problems can be resolved or alternative sources of assistance can be identified and secured. A job that was deferred could be completed at a later date if the

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deferral conditions identified are remedied. In some circumstances, a unit may be beyond repair, or conditions may never be remedied. This unit would result in termination of the application. Specific steps must be followed for each situation, as outlined below.

All reasonable precautions against performing work on units that will subject workers or clients to health and safety risks must be performed. Before beginning work on the project, the Subgrantee must take into consideration the health concerns of each occupant, the condition of the dwelling, and the possible effect of work to be performed on any particular health or medical condition of the occupants. When an occupant's health is fragile and/or the work activities would constitute a health or safety hazard, the occupants at risk will be required to leave the home during these work activities. If an occupant cannot, or will not, leave the unit during the work hours, **the job for the project may have to be deferred.**

Deferred Units:

Existing conditions under which a 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 weatherization funds;
- Existing moisture problems that cannot be resolved within program guidelines;
- Projects with sewage or other sanitary problems that not only endanger the occupant but the workers who will perform the weatherization work;
- Occupant's health condition that is worsened by weatherization activities;
- 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 "red tagged" and cannot be resolved within the scope and funding restrictions of WAP-BIL;
- 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-BIL, the Subgrantee should report the problems to the owner/client and indicate that the activity 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.
- Unlawful activities are occurring in the unit that could endanger the occupants or the workers.
- When structural, wiring or plumbing problems exist which make the project unfeasible, the owner/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 unit is infested with insects, rodents, etc., activities should cease until the condition has been remedied.
- Condition of the unit, and the contents within, prohibit the ability to weatherize the unit.
- Units using unvented gas heaters as a primary heating source are not eligible for services until suitable measures have been accomplished to minimize the health and safety risks associated with unvented heating systems. If the client/owner 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.

Termination:

In some situations, the issue cannot be resolved even if the job is deferred. In these situations, the weatherization case should be terminated. If a case is terminated without weatherization services being provided, the client has the right to reapply in the future. If services were provided prior to termination, any future application would be considered a request for reweatherization of the home.

- The property is currently listed for sale or under a sale contract, either through an agency or privately.
- The unit or property is condemned or in the process of being condemned.
- The property has been foreclosed.
- The property has been designated for acquisition or clearance by a Federal, State or local program.
- Occupant is uncooperative, abusive, or threatening to contractor, subcontractors, auditors, inspectors, or others who must work on or visit the house.
- Applicant is deceased, and there is not a spouse remaining in the home who agrees to assume applicant status.
- Applicant is no longer permanently residing in the unit. A temporary absence that can reasonably be expected to last three months or less, and where the applicant expects to return to the home, will not require termination. In the case of an applicant who is no longer residing in the unit on a permanent basis, an applicant's spouse who still resides in the home may re-sign the application and continue to receive services, provided the household continues to meet eligibility requirements.
- The household has been evicted.
- Client/Owner refuses to allow the removal of the unvented space heater that serves as a primary heating source.
- There is not a reasonable expectation that the conditions that prevent weatherization activities can be alleviated within a reasonable period of time.

Notification:

When deferral of weatherization services is necessary, the Subgrantee must take the following actions:

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- A Notice of Deferral must be sent to the client and or owner. This notice should clearly state the conditions which must be corrected before weatherization work can proceed and define a reasonable time period by which the corrections must be completed.
- The deferral notice must contain notification of the right to appeal the decision, and how those rights may be initiated.

- Occupant must be informed immediately both verbally and in writing of any imminent health and safety hazards.
- Subgrantee shall work with the client/owner to assist in identifying and accessing available resources that can help to address the situation that required deferral.
- Subgrantee must be notified by the property owner or applicant once the existing conditions have been remedied. Upon notification, the subgrantee will return the application status to “active” and place the applicant back on the list for services. Another energy audit may be necessary before the job can be bid.

When termination of weatherization services is necessary, the Subgrantee must take the following actions:

- A termination notice will be sent to the client/owner and occupant that gives the reason for the termination.
- The termination notice will contain notification of appeal rights and how those rights may be initiated.
- If the current address of the applicant is unknown, mail the notice to the last known address.
- In the event of death, send the notice to the next of kin if known. Otherwise, mail the notice to the address of the deceased.
- Document the client file with verification of death

Documentation of Deferral:

Postponement of services does not mean that the case is closed. The deferral of an eligible unit must be properly documented so that no confusion exists about why weatherization services were postponed. At a minimum, the following information related to the deferral must be documented in the client file:

- Date of deferral.
- Clear and concise description of the problems encountered in the unit and action required to alleviate the issue before weatherization can proceed.
- Documentation of client notification of any condition that could impact the household’s health and/or safety. A copy of the notices sent to the applicant should be retained.
- The Subgrantee must track all deferrals to determine if timely action has been taken to alleviate the circumstances which prevented the weatherization from occurring. If the property owner is unable or unwilling to make the necessary repairs, or if other resources are unavailable to assist with the repairs within a reasonable timeframe, the Subgrantee may opt to terminate the application.

Documentation of Termination:

A project that is terminated will be closed and the applicant will not be placed on a deferral list. The termination of an eligible unit must be properly documented so that no confusion exists about why weatherization services were terminated. At a minimum, the following information must be documented in the client file:

- Date of the decision to terminate the case;
- Clear and concise description of the reason for termination; and
- Documentation of notification to client and or owner.

Additional Resources:

Subgrantee should aggressively pursue alternative funding to reduce the occurrences of deferral. Subgrantee should establish open lines of communication with as many other funding sources as possible so that referrals can occur in an efficient manner. The following is a list of potential funding sources to help remedy situations in the unit:

- 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
- State funded housing and rehabilitation programs
- Low income program funds provided by local utilities
- City funded housing and rehabilitation programs
- CDFI low interest financing or loans
- Donations or financial participation from landlords
- Donations from local churches or community groups
- Donations from local businesses, nonprofit organizations, or local associations

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V.1.3 Definition of Children

Definition of children (below age): **18**

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 low-income client. Such applicants will need to apply through the WAP-BIL Subgrantee.

V.2 Selection of Areas to Be Served

Tennessee's intent is to provide WAP-BIL services across the State to eligible multifamily units occupied by eligible clients.

Approved applicants will be served in order of priority, based on funding availability. If remaining funds are insufficient to serve the next project on the priority list, the Subgrantee will go to the next project that can be served within the funding limitations.

When the Subgrantee determines they have a sufficient number of approved projects on the wait list compared to the amount of funding available, they have the option to temporarily suspend accepting new applications. When additional funds become available, or when the wait list has decreased to a number that can be expected to be served within a reasonable period of time, the Subgrantee can begin to accept applications, at their discretion.

The State must be notified by the Subgrantee whenever they suspend or reopen the WAP-BIL application acceptance process.

Subgrantee retains the option to clear the waitlist at the start of a new program year., all applicants currently on the wait list must be notified and provided an opportunity to reapply at the next open application period.

V.3 Priorities

Priority will be given to those clients with a vulnerable household member or with a high energy burden.

A vulnerable client is defined as someone who is elderly, disabled, or is a child less than 6 years of age.

A client that has a high energy burden, based on the percentage of their countable income that is used for home energy costs, or that are considered a high residential energy user, will be given priority in receiving weatherization services. A high energy user is a client whose annual energy costs exceed the average energy costs 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 and updated annually.

An approved client may have a maximum of 100 points. Exception to the maximum may occur after additional points are given due to disaster related damage. Priority points will be assigned as follows:

Vulnerable Clients (50 Points Maximum)

Includes a Member with Following Characteristic

- 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 category based on current unit composition. For example, if two clients are disabled, only 15 points can be awarded.

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Energy Burden (15 Points Maximum)

%of Income Used for Home Energy Costs* Points

- 19.01% or higher 15
- 15.01-19% 10
- 8.01-15% 5
- 8% or less 0*

Calculated by dividing the annual energy costs by the total countable annualized income for unit.

High Residential Energy User* (10 Points Maximum)

Annual Energy Costs** Points

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

Average annual energy costs for a low-income unit in the east south central region is \$1,907.00 (2015 Residential Energy Consumption Survey conducted by the US Energy Information Administration) ** If energy costs are included in the rent, determine the annual energy costs by dividing the total energy cost for the building by the total number of building units.

Priority points for a Multifamily building will be calculated as follows:

- Determine the number of points for each unit occupied by an eligible unit;
- Divide that number by the total number of units in the multifamily building; and
- The result is the number of priority points for that building.

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 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 pasted below:

Heating Degree Days ("HDD")

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Month starting HDD

| | |
|-----------|-------|
| 1/1/2021 | 736 |
| 2/1/2021 | 716 |
| 3/1/2021 | 338 |
| 4/1/2021 | 231 |
| 5/1/2021 | 83 |
| 6/1/2021 | 1 |
| 7/1/2021 | 0 |
| 8/1/2021 | 0 |
| 9/1/2021 | 19 |
| 10/1/2021 | 103 |
| 11/1/2021 | 519 |
| 12/1/2021 | 413 |
| Total | 3,160 |

Cooling Degree Days ("CDD")

Month starting CDD

| | |
|-----------|-------|
| 1/1/2021 | 5 |
| 2/1/2021 | 1 |
| 3/1/2021 | 34 |
| 4/1/2021 | 17 |
| 5/1/2021 | 108 |
| 6/1/2021 | 306 |
| 7/1/2021 | 397 |
| 8/1/2021 | 411 |
| 9/1/2021 | 208 |
| 10/1/2021 | 99 |
| 11/1/2021 | 2 |
| 12/1/2021 | 25 |
| Total | 1,613 |

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V.5 Type of Weatherization Work to Be Done

V.5.1 Technical Guides and Materials

All WAP-BIL work performed is consistent with its DOE approved energy audit and Appendix A. 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 Tennessee Specific Standard Work Specifications will be available online and in digital format at: http://wxfieldguide.com/tn/TNWxFieldGuide_2018_SWS.pdf.

THDA contracted with Saturn Resource Management in PY18 to create a Tennessee specific field guide. Tennessee's current SWS Field Guide is DOE approved.

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. If a QCI does not retake the course within six (6) months they are no longer eligible to conduct QCI visits until they take the course. 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 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-BIL and will no longer be able to work in the program for a minimum of two (2) program years. After the completion of the two-year period, an QCI 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 from the link below: http://wxfieldguide.com/tn/TNWxFieldGuide_2018_SWS.pdf

By signing the WAP-BIL 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-BIL Manual, Tennessee Weatherization Field Guide, National Standard Work Specifications, and State and Federal requirements.

All work must comply State and Federal WAP-BIL requirements and the THDA Standard Work Specifications found at the site: http://wxfieldguide.com/tn/TNWxFieldGuide_2018_SWS.pdf

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.

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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-BIL 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 2023. , "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-BIL may not be able to be insulated in full or at all. In these cases, the unit may need to be deferred. The Tennessee Weatherization Field Guide and Standard Work Specifications contains information regarding the proper procedures 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

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. Exceptions: If any of the following conditions exist, then the wall cavity shall not be insulated:

- 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.

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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 meet 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, such as 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 22-7.

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 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 17-7. 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, 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

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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 \$50 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 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. Subgrantee 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 code 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. Subgrantee are required to follow internal, state, and federal 2 CFR 00.317326 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 ultimately approve or deny the purchase request.

Bulk equipment and material purchases will be funded through the appropriate budget category like Program Operations or Health and Safety.

Field guide approval - TO FOLLOW

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: NEAT |
| Approval Date: 7/5/2022 |

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Audit Procedure: Manufactured Housing
Audit Name: MHEA
Approval Date: 7/5/2022

Audit Procedure: Multi-Family
Audit Name: Other (specify)

Approval Date:

Comments

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
Eligible multifamily buildings consisting of 5 or more units will be sent to the DOE Project Officer to review before the weatherization services are initiated.
THDA plans to use additional DOE approved measures refrigerators, heat pump water heaters and LED lamps.

V.5.3 Final Inspection

The Subgrantee that administers the WAP-BIL will be responsible for hiring Quality Control Inspectors ("QCI") or on a contract basis. Additionally, Tennessee plans to procure a vendor to help complete the monitoring and QCIs across the State.

Individuals signing off on work in multifamily buildings have an active QCI certification and successfully complete a comprehensive training program based on the NREL Multifamily Quality Control Inspector JTA or something similar.

The certified individuals performing the Final Inspections are to be separate from performing installed work and separate from the original audit if not 10% of work will be monitored,

Once the contractor has notified the Subgrantee that all work on a unit has been completed, the Subgrantee will assign a qualified QCI to perform an inspection. Every weatherized 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 Part 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. The Subgrantee has 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.

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V.6 Weatherization Analysis of Effectiveness

Every unit weatherized through the WAP-BIL 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 unit.

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 project. 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 and the pre weatherization energy costs and the post weatherization energy costs. There will be no cost to the program for this evaluation. Please see attached document to the SFR 424 titled WAP TVA Energy Kit Effectiveness.

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 contractors actual cost and averaging them for the state. The cost averages will be compared to market costs and be adjusted as needed.

Continued monitoring of progress and work performed will inform the next steps in development of training. A copy of the THDA WAP monitoring tools are attached to the SF-424.

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. The Subgrantee will be provided with funding that may be used to address health and safety issues as permitted in Tennessee's Health & Safety Plan. Funds may only be spent in units where weatherization work is being performed, although there is not a limit per unit. 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 & Safety Plan template is attached to SF-424. The Subgrantee will be instructed to review policy in the WAP Manual. 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 Subgrantee 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-BIL 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.

Tennessee is defining the FY22 ACPU as \$8,009.

THDA allows for air conditioning installation/replacement utilizing H&S funds. At risk clients are defined as: individuals who are under age 6, age 60 years or older, disabled, or have a specific health condition that is exacerbated by the lack of heating or cooling in the dwelling.

Weatherization workers must follow EPA's Lead; Renovation, Repair and Painting Program (RRP) when working in pre-1978 housing unless testing confirms the work area to be free. If RRP is required photo evidence must be proved and uploaded to WAPez

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

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Assistance Program Bipartisan Infrastructure Law Program (“WAP-BIL”) and any iteration of the DOE funded Weatherization Program annually.

For the WAP-BIL, THDA intends to administer the program across the state through one vendor that has the capacity, experience and ability to oversee the program and build up a strong contractor pool across the state that can help weatherize and serve multifamily units from 2023-2027.

The WAP-BIL program is administered and funded at the federal level by the U.S. Department of Energy (DOE) and is 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. The 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 who reside in multifamily units.

The Subgrantee will be expected to meet performance and quality standards, as defined by the State. Failure to meet these standards can result in the termination of the Subgrantee. All funds available to Tennessee's WAP-BIL will be administered in accordance with DOE rules and regulations and State policies and procedures.

Pollution Occurrence Insurance (POI)

Tennessee will not require the subgrantee to purchase Pollution Occurrence Insurance (POI). However, it is an allowable expense if the subgrantee opts to purchase this insurance.

Caps on Expenditures

Each unit will be limited to \$8,009.00 in DOE funding to perform weatherization services. Expenditures for a multifamily building are limited to the number of units occupied by an eligible household multiplied by \$8,009.00. 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.

Client Education

Client education will be provided to clients by the subgrantee, auditors and contractors. 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. Property owners and tenants 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. 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.

THDA 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.

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

The Subgrantee will be authorized to budget up to 11% of their total allocation for administrative costs subject to approval by THDA.

THDA will retain 4% of the federal funding allocation for its own administrative costs.

Contractor and Career Path incentives will be included in the Average Cost Per Unit (included in the Program Operations budget).

Contractor Incentives

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- To provide 1-year (\$500), 3-year (\$1000), and 5-year (\$1500) retention bonuses to all contractors who are existing or new to the weatherization program who will be performing BIL completions.
- Must have worked at least one completion within the retention year to receive a retention bonus.
- Will grandfather in current contractors so they may receive bonuses.

Career Path

- Require the Subgrantee to pay minimum wage for retrofit installer, crew lead, EA, and QCI
- Provide incentive ladder for obtaining EA and QCI (with minimum pay standards)
- Offer Sign-on bonuses for new crew (RIT, crew lead, EA, and QCI) = \$250
- Provide 12-month and 2-year retention bonus, \$500 and \$750 (current staff will be grandfathered in so they may receive retention bonuses)
- Five-year retention bonus - \$1,250 (current staff will be grandfathered in so they may receive retention bonuses)

Minimum Pay (Hourly rate – does not include fringe) or Davis Beacon wages when required.

| Position | Minimum Pay |
|--------------------|-------------|
| Retrofit Installer | \$13.50 |
| Crew Lead | \$16.50 |
| Energy Auditor | \$18.50 |
| QCI | \$21.00 |

Chart Data based on NASCSP Tennessee specific data from March 2021 Wage Study

V.8.3 Monitoring Activities

The Community Programs Division of THDA is responsible for the administration of the Weatherization Program in the State of Tennessee.

Technical Monitoring is conducted by monitoring contractor and THDA Advisors.

THDA's Internal Audit Division will conduct the Fiscal Monitoring of the WAP-BIL. **Tennessee will use its Indirect Oversight funds to cover the cost of the audit and monitoring conducted by its Internal Audit Division.**

Housing Program Coordinators will monitor WAP-BIL invoices.

An estimated amount of 4% 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 20-4 which includes, but is not limited to, the lists in the sections below.

Monitoring is conducted through a combination of desk and onsite monitoring. Client cases selected for quality assurance inspections and file review may be selected by THDA at their sole discretion. THDA will determine which process is best for the WAP-BIL. The Subgrantee will be informed of the QA inspection 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 of the Subgrantee and weatherization program will be monitored annually and in accordance with 10 CFR 440.23 and DOE WPN 20-4. The Subgrantee 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 closed case files will be reviewed. Through the use of THDA’s WAP reporting platform, WAPez, the Subgrantee will be required to upload case documentation to the cloud based server where THDA can review them in real time. 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 an onsite visit to the agency. THDA will also request upload of missing or additional documents to WAPez, as necessary. Areas of monitoring include, but not limited to:

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

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- Compliance with Historic Preservation guidelines
- Correct calculation of priority and priority standards followed
- Energy audit and appropriate identification of measures in accordance with program policies, utilizing the state approved audit tool and review of the generated work order to ensure quality and detail provided
- Procurement of work
- Quality Control Inspection process
- Measures invoiced in correct budget category (ECM, Incidental Repairs, H&S)
- Client Education
- Timeliness
- Database accuracy and timeliness of data entry
- Compliance with program policies and procedures
- Use of standard, mandatory templates
- Customer satisfaction

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 operational plan
- Review subgrantee 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
- 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

In addition to an annual financial monitoring visit to the subgrantee, all invoices submitted for payment will undergo a fiscal desk review prior to any payment being authorized. This desk review will include the Subgrantee's 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 monitored 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. Subgrantee will have an annual onsite financial compliance review conducted by THDA Internal Audit staff. At minimum, this monitoring visit will review the following items:

- 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-BIL 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 \$5000 or more that were purchased with at least a percentage of DOE WAP-BIL 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

Technical Monitoring

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THDA will conduct quality assurance inspections of at least five percent (5%) or more of all completed units during the fiscal year. If the Subgrantee does not have an independent QCI to conduct the final inspection THDA will increase monitoring to ten percent (10%) of completed units. THDA may increase the percentage of units being monitored 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.

Quality assurance inspections will also serve as an opportunity to provide technical assistance as appropriate. THDA compensates contract workers who attend inspections 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.

If the Subgrantee's 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 the 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 subgrantee 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-BIL 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 onsite program or financial monitoring visit, a report that details the findings of the visit, including any identified best practices will be provided to the subgrantee. 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) that addresses all identified findings and concerns. The CAP must provide the actions the subgrantee 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. 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.

Subgrantees will be required to submit Corrective Action Plan in 30 days

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

Reporting

Within sixty (60) days from the end of the program year, THDA will create a report that provides a summary of the subgrantee's financial reviews, program monitoring reports and any outstanding issues. This report will provide an overview of the 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 sixty (60) 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.

Technical and Programmatic Monitoring Schedule

Once production is underway, THDA plans to visit at minimum 2 projects per month for programmatic and technical monitoring. Throughout the year we will monitor at least one unit per project. Based on monitoring findings and outcomes THDA will conduct additional visits as needed. Based on production we will conduct annual fiscal monitoring of the subgrantee. Fiscal Monitoring is conducted by the THDA Internal Audit division. The THDA WAP monitoring tools can be found attached the SF424. The THDA WAP Monitoring and Corrective Action procedures can also be found attached to the SF-424.

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V.8.4 Training and Technical Assistance Approach and Activities

Tennessee Housing Development Agency'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", Section 4 and as required, will meet the National Renewable Energy Laboratory (NREL) Job Task Analysis (JTA) for which the worker is employed. TN's T&TA plan reflects feedback from DOE monitoring visits, internal state audits, Grantee monitoring of the Subgrantees, IG reports, analysis of effectiveness, and other (e.g., updated SWS) (10 CFR 440.12(b)(7)).

The Subgrantee is 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. The major objective of Training and Technical Assistance is to provide the Subgrantee with the information and training required to administer and operate in compliance with DOE and State WAP rules and regulations. The Subgrantee is 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 has recognized and evaluated training needs based on monitoring reports and requirements. THDA will review the subgrantee monitoring reports with our T&TA provider and trainings are developed based on the needs of the subgrantee and/or individuals.

THDA will be issuing an RFP to hire a 3rd party monitoring company to oversee subgrantee. THDA will have technical advisor and hiring junior technical advisor to oversee monitoring company. Subgrantee has hired two BPI qualified BPI auditors with QCI and intends to hire more to maintain staff of 3 QCI auditors.

Quality Control Inspector

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

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:

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

EA / QCI Training & Testing

Certification training typically consists of weeklong review consisting of a combination classroom and field exercises to 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. The Subgrantee 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. The Subgrantee, 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 \$100/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.

Diagnostic training for contractors is also being developed in partnership with Tennessee subgrantees and our T&TA provider. 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

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Single-issue, short term, training to address acute deficiencies in the field such as dense packing, crawlspace, ASHRAE 62.2 2016, 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 are multiple repeat findings due to lack of experience or training.

In addition to Interstate Renewable Energy Council "IREC" accredited training providers, several non "IREC" accredited training providers are located throughout the state/country (i.e. State, regional and/or nation meetings/conferences; Technical Colleges; other or/nonprofit organizations; etc). Specific training courses are provided throughout the year and dependent upon the individual Training Providers' schedule. THDA must approve in advance any out of state training activities.

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
- Lead Safe 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 onsite 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 The T & TA provider will perform the primary role of "Independent QCI" for monitoring program year 2022 with the intent to have this function assisted by THDA QCIs during program year 2023-2027.

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. Additional description of client education is found in the previous section V.8.1.

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. Obtaining actual energy savings of all fuel types is still in process at THDA. We have approached our utility partners on best practices towards producing such information.

**U.S. Department of Energy
WEATHERIZATION ASSISTANCE PROGRAM (WAP)
STATE PLAN/MASTER FILE WORKSHEET**

(Grant Number: EE0010017, State: TN, Program Year: 2022)

Percent of overall trainings

| | |
|--------------------------|-----------------------------------|
| Comprehensive Trainings: | <input type="text" value="50.0"/> |
| Specific Trainings: | <input type="text" value="50.0"/> |

Breakdown of T&TA training budget

| | |
|--|--------------------------------|
| Percent of budget allocated to Auditor/QCI trainings: | <input type="text" value="0"/> |
| Percent of budget allocated to Crew/Installer trainings: | <input type="text" value="0"/> |
| Percent of budget allocated to Management/Financial trainings: | <input type="text" value="0"/> |

V.9 Energy Crisis and Disaster Plan

THDA WAP-BIL is in compliance with WPN 12-07 in 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 WAP-BIL.**
- **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.**

Job Not Yet Begun – Project 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 building. If there is no damage, document the case file, and no further action is required. If the building is destroyed or condemned, or if the applicant has moved without intending to return once repaired, terminate the WAP case. If the building is damaged and requires repair, the project remains on the wait list. Determine if the project 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:

- A. An energy audit has been completed;
- B. The job has been awarded to a contractor;
- C. 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.

Building Damaged; Job Not Yet Awarded or Begun

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

If the building was not destroyed, conduct another energy audit to determine if the condition of the project 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.

Building 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 building was destroyed. If destroyed, the contractor is to invoice the agency for only those measures installed in the project at the time of the disaster. No post inspection is required, but the agency must confirm the building was destroyed and an audit is not possible due to damage. This project cannot be counted as a completed unit; however DOE Weatherization funds may be used to pay for audit and contractor costs.

If the project 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 project, and the appropriate energy measures based on that status.

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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 allweatherization 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.

Building Damaged: ReWeatherization of Previously Completed Units

A project 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

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-BIL 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 project 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 \$8,009.00. This includes both predisaster and postdisaster work with the exception of jobs that are considered reweatherization.
- This cap may only be exceeded with prior approval from the State.