

Texas Department of Housing and Community Affairs
Weatherization Program
Frequently Asked Questions
(Updated January 2020)

The Texas Department of Housing and Community Affairs (The Department) has created the following document to assist its Weatherization funded Subrecipients to answer applicable program questions. The document contains answers to the questions the Department has received that are relevant to the network. In addition to this document, Subrecipients are encouraged to take the following steps to respond to their questions:

- Review your applicable DOE and LIHEAP WAP Contracts
- Reference applicable TAC Rules
- Reference other applicable program rules/guidelines (OMBs, CFRs, UGMS, WAPTAC, etc.)
- Review Department guidance on TDHCA Website

If after reading and referencing all these materials you still have questions, you may submit a program question by completing this form:

- <https://tdhca.wufoo.com/forms/request-for-ca-program-assistance/>

You may click on the hyperlinks below to move to the most appropriate category that applies to your question.

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GENERAL PROGRAM

For information regarding income guidelines, please refer to the Department's Income Guidelines Q&A.

1. Where can we find the standards for weatherization work?

For DOE-WAP:

- [Single-Family Homes: Standard Work Specifications Field Guide \(PDF\)¹](#)
- [Manufactured Housing: Standard Work Specifications Field Guide \(PDF\)²](#)

For LIHEAP-WAP:

- [Material Installation Standards Manual \(2012\) \(PDF\)³](#)

2. What are our options for dealing with excess WX inventory? Example: left over equipment from DOE ARRA like blower doors, monoxors, etc.

If the equipment that the Subrecipient wants to dispose of is accurately valued below \$5,000, the Subrecipient may dispose of the items in accordance with their local Subrecipient inventory management policies. Subrecipient inventory management policy should meet the appropriate inventory/equipment requirements. Upon disposal of the inventory, the Subrecipient will need to submit a revised inventory form to the Department reflecting the change in inventory (if applicable).

WX inventory management references are:

- DOE/LIHEAP Contract Section "Management of Equipment and Inventory"
- [10 CFR 600.134\(g\)⁴](#)
- [2 CFR 200.313\(e\)⁵](#)

3. How does the Department define "Units in Progress" (UIP) as reported on the Monthly Expenditure Report (MER)?

A UIP begins when an assessment has been completed, work order has been generated, and the unit has been assigned to a contractor. These units are to be counted with the expectation of completing the unit within the current contract term.

4. Can we work on units after the contract end date?

Yes, if the assessments, audits, and work orders were completed and out to the contractor prior to the contract end date. By contract closeout date all units pertaining to the contract will be required to have all weatherization work 100% completed, successfully passed a final inspection, completed a Building Weatherization Report (BWR), and have paid all invoices related to those units.

5. Can Subrecipients use T&TA dollars to pay for staff salary for the time the staff are attending approved and applicable trainings for the WAP program?

Yes, Subrecipients can use T&TA funds to pay for applicable staff salaries for the time the staff is attending WAP program training(s).

6. Can Subrecipients utilize T&TA dollars to pay for contractors to attend approved and applicable trainings for the WAP programs?

According to WPN 20-1, attachment 2, T&TA funds may also be used to train contractors at the local level participating in the Program. In making the determination to pay for contractors' training, Subrecipients should secure a retention agreement in exchange for the training. The retention agreement should require that contractors would work in the Program for a specific amount of time that equates to the value of the costs associated with the T&TA provided. In an effort to improve network knowledge/performance T&TA dollars can be utilized for contractor's tuition/conference fees, hotel accommodations, & per diem to attend all approved or

¹ <http://www.tdhca.state.tx.us/community-affairs/wap/docs/SF-SWS-Guide.pdf>

² <http://www.tdhca.state.tx.us/community-affairs/wap/docs/MH-SWS-Guide.pdf>

³ <http://www.tdhca.state.tx.us/community-affairs/wap/docs/WAP-MISM.pdf>

⁴ <http://www.ecfr.gov/cgi-bin/text-idx?SID=444fdd8c76846424f92e8a5f33069534&node=10:4.0.1.3.9.2.15.27&rgn=div8>

⁵ <http://www.ecfr.gov/cgi-bin/text-idx?SID=c16296aecfef71d582e0634cf6658cf1&node=2:1.1.2.2.1.4.30.14&rgn=div8>

applicable trainings related to the WAP program (Subrecipient approved travel policies would apply). Lost wages or salary for contractor staff to attend trainings **would not** be an allowable expense. Should you need additional information please contact Department CA training staff.

7. With substantially more T&TA funding available in the DOE contract can we charge the majority of training activities to the DOE contracts?

With cost allocation criteria, coming into play this question is very tricky so please pay close attention to the examples and if in doubt contact Program Training staff to aid in the determination. Communication between your Fiscal & Program staff will be necessary to determine if cost allocation will be required. With the previous caveats in mind the simplest way to aid your determination would be

- Determine if this training is required by a specific program
- Determine if this training is to obtain needed CEUs for a required certification from a specific program
- Determine if this training is a general training that would apply to all programs

Examples:

LIHEAP Priority List training-would be specific to the LIHEAP program & all cost from the training would be charged to the LIHEAP contract.

TACAA Conference providing BPI CEUs

- WAP staff **with required certifications by DOE** (QCI, Retrofit installer, Crew Leader, etc.) would be eligible to charge conference associated expenses straight to the DOE T&TA due to obtaining necessary CEUs to keep their required certifications
- WAP staff **without certifications** would need to allocate between all benefitting programs due to CEUs not being a requirement for a specific program

DOE required BPI Certifications-would be a specific program requirement for the DOE program & all costs related to the certification would be eligible for DOE T&TA

8. If we fully expend our LIHEAP T&TA funds, can we charge the remainder of our T&TA to DOE?

Generally speaking the answer would be no as cost allocation will come into play and all benefitting programs should be charged a fair share of the cost. Communication with your Fiscal staff and additional guidance within the FAQs should clarify the allowability.

9. When leveraging DOE & LIHEAP funds, what do we use to justify the measures installed?

- When a Subrecipient weatherizes a unit leveraging DOE and LIHEAP funds or when solely utilizing DOE funds, the current approved energy audit must be utilized to justify both the DOE and LIHEAP measures installed.
- When a Subrecipient weatherizes a unit utilizing LIHEAP funds only or leverages LIHEAP with alternative funding other than DOE, the Subrecipient must utilize the PL for the expenditures charged to the LIHEAP WAP program. See Note and Example below for further clarification.

Note:

When leveraging LIHEAP with alternative funding (non-DOE) which require an energy audit or a similar energy audit, the Subrecipient must still utilize the LIHEAP PL and address measures on the client's home, even if the measures do not rank in the energy audit required by the alternative funding source. The Department reminds the Subrecipient that all LIHEAP PL rules will adhere to the leveraged unit.

Example:

A Subrecipient performs an energy audit for their utility company and the energy audit does not rank sidewall insulation. The agency will still be required follow the guidance outlined in the current PL for wall insulation if the

measure is applicable. The Subrecipient would not be allowed to use the energy audit as justification to skip required LIHEAP PL measures.

10. Is there a process Subrecipients can follow to exceed the CPU cap on units, on a case-by-case basis?

Subrecipients are reminded that the CPU consists of Material, Labor, AND Program Support charges. The Program Support charges typically consist of non-salary expenditures associated with the weatherization program and salaries and fringe for Subrecipient staff to perform the Intake, Assessment, and Final Inspection of the weatherized unit.

Subrecipients should follow the following process, on a case-by-case basis, for each unit they are requesting to exceed the maximum allowable CPU. Prior to the work order being submitted to the Contractor, Subrecipients must submit a request to exceed the maximum allowable CPU, to the Department's CA Training Division through the WUFOO portal. Each waiver request must contain the following information:

- The address for the particular unit requesting to exceed the CPU limit;
- A brief description explaining the reason to exceed the CPU;
- A breakdown of the estimated total of: Material/Labor and Health & Safety cost;
- A copy of the energy audit or Priority List identifying which measures will be installed;
- Most recent approved Monthly Expenditure Report CPU amount;
- Subrecipient's current CPU \$\$ amount from their internal tracking (to include the estimated cost per unit of units that are in progress at the time of the request);
- Subrecipient staff assurance that by the end of the contract period, the CPU will be at or below the acceptable limit (including Subrecipient program support expenses) – no exceptions.

The Department will review each request and if needed, require additional information or support documentation. The Department will respond to the Subrecipient's request and if approved will issue a waiver to allow the Subrecipient to exceed the maximum CPU. Upon receipt of the approval, the Subrecipient may commence the weatherization work on the specific unit(s).

In a situation where the Department has not issued a waiver to exceed a specific unit's CPU, the Subrecipient is reminded that the Department is not liable and will not reimburse any costs incurred by the Subrecipient, when a weatherized unit's CPU cost exceeds the maximum CPU amount.

11. Can Subrecipients buy down measures with outside (non-federal, ex: utility) funds to install DOE or LIHEAP measures that either did not rank for replacement or funding limitations did not allow for installation? Example: Subrecipient has worked down the PL and has \$700 in funds left over, but does not have enough to address the next measure. The next qualifying measure is HVAC replacement; total cost for HVAC replacement is \$3,495, can Subrecipient make up the difference with non-federal funding?

Yes, buy downs are allowable. Subrecipients are strongly encouraged to leverage non-federal funds with federal funds to result in the largest benefit for the client. Documentation clearly describing the buy down process should be maintained in the client file.

12. What do Subrecipients do when clients won't allow measures to be installed or try to pick/choose which measures they want from the work scope?

Tricky question to answer. Clear and robust client file documentation will be necessary when faced with this difficult situation to avoid potential issues. If the client will not allow required Health & Safety measures to be installed the unit must be denied services with a clear description provided on the H&S measure refused that would prohibit program compliance. Additional measures declined by the client should be documented during the assessment and taken into consideration when determining the unit work scope. If the declined measure(s) prohibit program compliance, is a key energy savings measure, or affects the whole house energy-savings approach a subrecipient representative should contact the client to discuss potential solutions. During this process, it is imperative the subrecipient provide client education on the energy savings for each declined measure, discuss the importance of taking a whole house approach to energy savings, and document all potential solutions discussed with the client. During the client education process, if the client approves the measure(s) that were originally declined the subrecipient should document the measure approval, complete the work scope, and

proceed as normal. If declined measures remain the subrecipient should utilize the guidance below to aid in the proper determination:

- **Declined measure prohibits program compliance** - subrecipient must document the details of why the denied measure would prohibit program compliance, efforts to provide client education, & defer accordingly.
- **Declined key energy savings measures which would drastically affect unit energy-savings on the whole house WAP approach** - often one of the most difficult scenarios a WAP staff member encounters and requires a judgement call is to determine if the unit is a deferral. Keep in mind the intent of the WAP program is to reduce the energy consumption for low-income households. If declined measures are key energy saving items that by refusing installation, could go against the program intent, negatively affect other installed measures, & create potential liabilities the subrecipient should document the details of how the household does not fit into the program intent, efforts to provide solutions, provided client education, & defer accordingly.
- **Declined measure has limited effect on unit energy-savings on the whole house WAP approach** – WAP staff should document efforts to provide client education of the declined measure, complete the work scope & proceed with the other eligible measures.

Should subrecipient need additional information please contact Department Training staff for guidance.

13. Is TDHCA going by IRC 2015?

As of September 1, 2016, the state of Texas has adopted the 2015 IRC as the code for single-family residential construction. If Subrecipients experience a different code requirement in their local jurisdictions, please contact the Department Training Staff for guidance.

14. Do Subrecipients still have to submit houses to the historical commission?

Yes, the Texas Historical Commission also has an online system that may be utilized for submissions called eTRAC.

- <http://www.thc.texas.gov/etrac-system>

15. In an effort to save money, can Subrecipients use electronic files? Including electronic signatures? Including WAP assessments?

This is a potentially great idea that the Department supports. According to the program contracts for CEAP, CSBG, and WAP, the requirement is that all the outlined information is collected and kept, but it does not specifically say it has to be in paper form; the important thing is that all the appropriate information is gathered and retained. Additionally, [2 CFR 200.333-337⁶](#) addresses record keeping requirements. Specifically, in 200.335, it outlines the option of original documents being generated electronically and there being no need to create and retain paper copies. Further guidance can be located in the [Implementation of the Government Paperwork Elimination Act⁷](#) (GPEA), so please refer to all of these references for additional guidance.

- Electronic signatures need to be from the appropriate person. If the Subrecipient has the ability to collect the signatures electronically in the appropriate locations on the appropriate forms, this is acceptable. The definition and criteria for “electronic signature” is identified in GPEA Part II, Section 2.
- WAP assessments/inspections can be performed electronically. The signatures required must follow the guidance above. The Department is aware that there are already multiple agencies around the state that are doing assessments electronically, so peer-to-peer information sharing/networking is encouraged and could possibly be the most efficient way to make this transition if your agency wants to move that direction. Remember all program requirements are still applicable.

There are policies, procedures, and the implementation of those identified in GPEA Part I that Subrecipients should review prior to any implementation. GPEA Part II, Sections 3-9 also provide additional information on the analysis of the potential switch. The Department reminds the network that electronic files would require some things that need to be in place prior to making this transition:

⁶ [https://www.ecfr.gov/cgi-](https://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&SID=eb90ebd2e5188cc2f92712bfefe86b25&mc=true&n=pt2.1.200&r=PART&ty=HTML#sg2.1.200_1332.sg6)

bin/retrieveECFR?gp=&SID=eb90ebd2e5188cc2f92712bfefe86b25&mc=true&n=pt2.1.200&r=PART&ty=HTML#sg2.1.200_1332.sg6

⁷ <https://digital.gov/resources/implementation-of-the-government-paperwork-elimination-act/>

- Applicable documents created as originals and un-editable after-the-fact;
- System must be secure to protect information and mitigate the risk of hacking, etc.;
- There must be a good backup process in place to prevent potential for system crashing and potentially losing information (applicable record retention remains a program requirement).
- Any other applicable safeguard for the files.

DOE – QCI Process

1. What is the required documentation for DOE-WAP QCIs?

Per WPN 15-4, every completed DOE-WAP unit must have a full final inspection performed by a certified QCI.

The Department has created two QCI documents:

- Subrecipient DOE QCI Process for monitoring to determine the number of units to inspect/agency.
 - <https://tdhca.wufoo.com/forms/subrecipient-doe-qci-process/>
- QCI-Final Inspection Certification Form for Subrecipient QCIs to complete for each final inspected unit. A completed form must be in the client file.
 - [QCI Final Inspection Certification Form⁸](#)

2. What does the QCI process consist of and what tests are required?

QCI process consists of three components (client file review, final onsite inspections, and pass/fail determination) as described in detail below.

Client File Review

- Review assessment, NEAT, work orders, contractor invoices, BWR & determine the following
 - Installed measures were called for on the work order
 - All weatherization measures were addressed
 - Verification of no missed opportunities

Final Inspection

- Onsite Inspection of measures invoiced and/or listed on the BWR
- QCI required test documentation is as follows:
 - Blower Door
 - ZPD documentation
 - Duct blaster (if applicable)
 - Pressure Pan testing (if applicable)
 - ASHRAE compliance
 - DWH temperature testing
 - Ambient CO ppm
 - Combustion testing (efficiency, co, co air free, etc.) (if applicable)
 - CAZ testing (worst case, spillage, draft) (if applicable)
 - Furnace heat rise testing (if applicable)
 - Gas leak testing (if applicable)
 - Gas flex criteria (if applicable)

Pass/Fail determination

- To successfully pass a QCI final inspection each unit should successfully pass the following three determinations:
 - Visual/Sensory Inspection
 - Obtain satisfactory diagnostic results
 - Ensure measures are installed to SWS compliance

⁸ <https://www.tdhca.state.tx.us/community-affairs/wap/docs/QCI-FinalInspCert-form.pdf>

3. Is there any guidance on the requirement to test any/all combustion appliances? Appliances outside the thermal envelope?

Further clarification from the DOE and their contractors confirmed that **all combustion appliances require all applicable tests performed** unless:

- The combustion appliance has no possible connection through the building pressure boundary, the CAZ and draft testing would not be required. Adequate documentation of the lack of a connection must always be included in the client file. Examples could be (1) a water heater in a completely detached shed away from the house, or (2) a water heater in a completely detached garage.

Any possible connection between the space containing the combustion appliance and the building that could be a potential path for gases to flow would require all applicable testing. Examples of possible connections could be (1) DWH flue through a common attic with house or water pipes through the pressure boundary, whether air sealed or not, or (2) water pipe penetrations going directly into the side of the dwelling from the shed/cabinet that contains the DWH. When in doubt, run all applicable tests on all combustion appliances; it is the safest option for the client.

Bonding

Payment Bond – bond to protect payment to workers and vendors; required if the amount of contract is \$25,000 or greater.

Performance Bond – bond to protect payment for completion of project; required if the amount of the contract is in excess of \$100,000.

1. LIHEAP contracts with Subrecipients contain “Bonding and Insurance Requirements,” which is new. What does this mean?

The Bonding requirement is not new. It has been in the TAC since 2009 and in federal/state regulations prior to that. If Subrecipients are planning to weatherize a shelter, public housing, or government owned property then Subrecipients may be required to have bonding.

2. Please define the following contract language "a third-party" and "prime contractor."

It is difficult to answer this question without a specific scenario provided. These are not TDHCA defined terms, but come from federal circulars. If requested, the Department will review a specific situation.

3. What if a property is owned by a church? Does that change anything?

It depends. If the church operates a ‘facility,’ it may require a bond. The ownership of the property, the funding source, and the amount of money used from the funding source on the funding source, are to be considered when determining whether bonding is required.

4. Need to verify for CAA: Private owned multi-family. Does this fall under the bonding requirements?

It depends. The ownership of the property, the funding source, and the amount of money used from the funding source on the funding source, are to be considered when determining whether bonding is required.

5. If the property in question is a USDA apartment complex, is it a "government owned" property? Can Subrecipients weatherize it like a private-owned property or does the USDA title change the situation?

A USDA apartment complex could be considered “government owned” if the federal government owns the property. However, some multifamily properties merely receive insurance guarantees from USDA. More information is required to determine whether bonding is required.

6. If our present contracts with subcontractors do not have the "bonding" terminology in them, are the contracts valid or will Subrecipients have to re-procure to include this?

This is a question you should ask your own legal counsel as it depends on many factors including but not limited to what type of entity you are, what kind of work that you are performing, and how the contract was originally procured.

7. How do Subrecipients factor in the cost of the bond?

Subrecipients can amend the contract to have an additional line item price for bonding that would only be applicable for weatherization projects that require bonding. The cost associated with bonding will be identified

at the end of the BWR under the “Cost Category” section. The cost associated with bonding comes out of the Materials/Labor/Program Support line item and therefore will be a factor in the Cost per Unit calculation.

- 8. Subrecipients have a standard master price list that is applicable to all our contractors. They do not bid on specific jobs. Our contract is open ended in terms of the dollar amount. Therefore, Subrecipients do not have a set dollar amount guaranteed to any one contractor. How would Subrecipients determine if Subrecipients are "entering into a contract with a prime contractor in excess of \$100,000"?**

The bonds are determined to be applicable on a case-by-case basis. The ownership of the property, the funding source, and the amount of money used from the funding source on the funding source, are to be considered when determining whether bonding is required. The consideration of those factors will allow the Subrecipient to determine the total dollar amount for the project, which is the value needed for the bond amount (if applicable).

HEALTH & SAFETY (H&S)

General

- 1. Can TDHCA provide a tracking form for H&S percentages?**

No, this is a local level responsibility; each agency has various funds and programs to track and it is not possible for TDHCA to develop a one-stop-shop product that will work for all agencies.

- 2. Can Subrecipients develop and use a company policy of “if H&S exceeds allowed percentage” then defer the house?**

Subrecipients may develop an internal policy that would allow them defer units with excessive H&S expenditure in an effort to be compliant with H&S caps identified within their contracts. To establish the policy, Subrecipients should analyze local historical H&S expenditure data, including the average H&S dollars/unit spent. Subrecipients should be consistent in implementing and following through on that policy.

- 3. Client Questionnaire (H & S Guidance) prompts assessors to write comments and recommendations in different areas. What is the “exposure” of writing these comments? What happens if the client has altered installed items when compliance does a site visit? What is the Subrecipients liability?**

Compliance staff will review assessor notes, look at all the variables and documentation available. Compliance understands that sometimes clients will alter what was done; if necessary, document and take photos of what was corrected at the final inspection. To limit “exposure,” Subrecipients should have documentation (client signature) in cases where a client chooses to decline the installation of a weatherization (WX) measure. Please keep in mind if a client declines a required H&S measure the unit must be deferred.

- 4. Clients were “high” in a home visited and guns were displayed. Subrecipient staff was uncomfortable working on home. How should Subrecipients document this for denial?**

Keep some sort of documentation, staff/crew/contractor statements, and/or witnesses of the event. Subrecipients should have a policy that would allow employees to leave the premises if they are in danger.

- 5. Is there a way to put links out on the TDHCA website for H&S products that meet code?**

No, the Department cannot endorse individual products/suppliers.

Electrical/Knob & Tube Wiring

- 1. If the electrician says there is too much liability and that they should not work on the home, is this enough documentation to defer?**

Yes, such situations are up to a licensed professional or certified worker in that area, not just the general contractor. Keep documentation in client file.

- 2. How is Knob and Tube addressed under H&S?**

The current Health and Safety Plan for Texas is posted on the Department website; guidance for K&T is identified in the plan. In addition, the K&T Best Practice remains a good guide for determining the effectiveness of insulating when K&T is present.

- <https://www.tdhca.state.tx.us/community-affairs/wap/docs/WAP-BP-KnobTubeWiring.pdf>

3. What about walls with live K&T wiring; are Subrecipients to insulate portions of walls with live K&T?

No. Installation of insulation in selected wall cavities (cavities without live K&T wiring) would cause hot and cold spots in the walls, which could lead to moisture problems. If live K&T wiring exists in the walls, document the file, do not install wall insulation, and move on down the Priority List.

Combustion Appliance Zone (CAZ)/Combustion Appliances

1. When there are multiple UVSHs, it would exhaust our H&S funds to replace them all. Are these homes a walk-away or how do you suggest Subrecipients handle this? In addition, can Subrecipients use DOE or LIHEAP H&S funds to do this?

Great questions with multiple scenarios. Please consider the following:

- Options to avoid exhausting all H&S funds:
 - Option A is to combine the BTU's of all heaters (in bedroom/living room, etc.) and consider a well-placed, code-compliant, vented heating unit located where it could provide heat for multiple living areas in the home.
 - Option B would be to work with the local CEAP provider in the area & determine if a solution to address the heating issue would be allowed with current program guidelines.
 - Option C would be for the agency to explore other funding sources to aid in addressing H&S expenditures to allow the Subrecipient to continue to operate within the program H&S expenditure caps.
- DOE vs. LIHEAP guidelines for addressing UVSHs
 - DOE-WAP, you may replace the primary unvented heat source. Additional UVSH's that are not code compliant would need to be removed or replaced with alternative funds.
 - LIHEAP-WAP you may address the secondary UVSHs as well as the primary heat source as long as the primary heat source is vented and sizing restrictions are adhered to for secondary UVSHs. Caution should be taken when tracking H&S expenditures vs. H&S expenditure caps as this could become cost prohibitive if this is indicative of your local housing stock.

2. What if a Subrecipient cleans the stove and it does not fix the H&S problem; are Subrecipients to pay the contractor for cleaning? How is this billed? In addition, to further address the stove, would put us over our H&S costs.

If the Subrecipient has a contractor go out and clean the stove, but the cleaning does not remedy the H&S problem, this charge could still be an allowable program support charge. Remember, if the identified WX H&S issues cannot be remedied, WX work cannot continue and the house must be deferred.

Reminder: DOE funds can only be used to clean/tune/repair stoves, not replace stoves. Full stove replacements are only allowable with LIHEAP WAP funds.

3. What about CAZ testing? Are Subrecipients going to have more CAZ testing training?

Compliance has been helping with CAZ training during the monitoring visits since PY15. The Department is still willing to conduct additional CAZ testing Training & Technical Assistance (T&TA) for those who need it. There is a Best Practice titled "[Combustion Appliance Zone \(CAZ\) Testing](#)" that outlines all the steps and procedures. There are also some very good free CAZ testing videos available online.

Lead Safe

1. Subrecipients must have a Lead Safe Renovator (LSR) on staff. Is the cost to train someone as a LSR an allowable program expenditure?

Renovator Certification may be charged to Training and Technical Assistance. Please ensure costs are allocated to all appropriate funding sources as outlined in the Subrecipient's cost allocation plan.

2. H&S plan list is very stringent. Do any of these items trigger lead safe work?

In homes where lead is potentially present, LSW work practices always apply. The RRP rule is triggered by the total area disturbed, or whenever windows/doors are replaced.

ASHRAE

NASCSP has an FAQ document with ASHRAE guidance titled “VENTILATION AND INDOOR AIR QUALITY” for review.

- [NASCSP FAQs⁹](#)

1. Is ASHRAE required in all houses?

Yes, ASHRAE compliance is a program requirement for all WX houses.

2. Is ASHRAE an H&S Item?

Yes, ASHRAE is an H&S item. Charges associated with meeting ASHRAE compliance must be charged to the H&S budget line item.

3. With ASHRAE being a requirement, if a client refuses the ASHRAE ventilation to be installed, is this home a denial?

Maybe, the WAP program designates ASHRAE compliance, as an H&S requirement therefore the home must be compliant with the required ASHRAE standards at the conclusion of the WAP work, so the answer would be dependent on the potential need for additional ventilation in the unit. If the unit needs added ventilation to meet the current ASHRAE standards, and the client refuses, then the house would not comply with Health & Safety requirements and must be denied services.

4. Do you have any client education materials about air quality?

Here are some examples of air quality education that Subrecipients could consider using:

- [EPA Publications¹⁰](#)
- [ENERGY.GOV Publication¹¹](#)

ASHRAE Expenditures

5. Since ventilation will most likely be required in every unit, will H&S percentages increase?

At this point expenditures have not revealed the need for an increase. Current year H&S expenditures are closely analyzed using historic data from previous years when completing the State H&S plan and adjusted based off need on an annual basis by the funding source.

6. Is sealing airflow from the garage H&S?

Yes it could be, if Subrecipients are charging this portion of air sealing to H&S for ASHRAE purposes. Subrecipients should document the client file thoroughly. It would be ideal to maximize air-sealing work under materials/labor to save the H&S dollars whenever possible.

7. Can Subrecipients pay for electrical work associated with ASHRAE compliance?

If extra electrical work is required to meet ASHRAE standards, that could be an allowable H&S expenditure. Documentation would need to be included in the file to justify that the electrical work is a contributory item related to the ASHRAE fan installation.

ASHRAE Calculations

8. Where is the ASHRAE calculator located?

The latest ASHRAE calculator link is posted on the Department program guidance webpage, but is also available on the Residential Energy Dynamics webpage

- <https://www.redcalc.com/ashrae-62-2-2016/>

⁹ https://nascsp.org/wp-content/uploads/2018/07/WPN-17-7-FAQs_9.24.17.pdf

¹⁰ <https://www.epa.gov/indoor-air-quality-iaq/publications-about-indoor-air-quality>

¹¹ https://www.energy.gov/sites/prod/files/2014/12/f19/ba_innovations_2014_ASHRAE_62_2.pdf

9. For number of occupants, do Subrecipients count the number of people on the application, or the number of people actually staying there?

Count the number of people living in the space at the time of assessment. If there is a discrepancy between the number on the application and the number living in the house, simply document the assessment documentation to show why the occupant number was used.

10. Do Subrecipients account for pets?

No, only use the number of occupants living in the household.

11. Do Subrecipients count living rooms/dens being used as bedrooms as a bedroom?

No, count the number of bedrooms. Using the number of occupants will account for additional people in the household.

12. Will pressure pan work to check fan flow?

The pressure pan will not suffice for proper data collection for ASHRAE calculations. Modifications would need to be made to the pressure pan to get accurate measurements, as one would get from an exhaust fan flow meter

13. Does the ventilation calculator assume that customers use the existing exhaust fans?

Yes. The calculations are based off the ventilating abilities of the equipment; there is currently no adjustment for human behavior. Subrecipients should educate the client on how to best utilize the exhaust fans to maintain indoor air quality as well as help protect the integrity of the building structure.

14. Can the Department provide information on how the blower door target affects the required ventilation determined by the ASHRAE calculator?

Generally, the higher the blower door target, the less mechanical ventilation needed. Subrecipients should *not* avoid air-sealing targets or limit air infiltration efforts to avoid installing an ASHRAE fan, as the primary focus should be *ventilate right so you can air seal tight!* Remember effective air sealing and compliance with the current adopted ASHRAE standard(s) are both requirements for all weatherized units and work together to play a key role in indoor air quality.

15. Can you give guidance on how to estimate how much ventilation will be required by ASHRAE for a completed unit?

In an effort to guide the Subrecipient the Department has provided a target field on the Blower Door and Duct Blaster Data Sheet. As an aid Subrecipients are required by Section 9 to run a Pre ASHRAE calculator utilizing the BD target number for estimating how much mechanical ventilation would be required for ASHRAE compliance upon completion of the unit.

16. Sometimes we end up installing ventilation based on our BD target but upon completion of work, our target is not achieved. The ASHRAE measures are already installed due to addressing H&S first and there are no additional funds available to do more air sealing. Will this trigger a compliance problem?

If this is happening on a regular basis, the Department suggests the Subrecipient review their air sealing process to determine the causes for not meeting the air infiltration targets & implement improvements. Rare instances of not obtaining targets can be expected as sometimes the house just wins. To avoid potential issues with ASHRAE measures being installed in a home where it was not needed the Subrecipient could:

- Maximize air sealing expenditures and address air infiltration prior to installing the fan to eliminate the guesswork from knowing if the ASHRAE measures were required.
- Install the ASHRAE fan in a centralized bathroom so the fan could be utilized to remove moisture & pollutants from within the unit to improve indoor air quality on an as needed basis, but available for ASHRAE compliance should the need be determined. **Note:** Additional benefit of locating the fan within a bathroom from the ASHRAE standpoint could be the dual credit option. Please contact CA training staff if you need specific guidance related to the dual credit option.

17. Are Subrecipients required to enter the information for a fan or vent hood that is just re-circulating air into the calculator anyway?

No, those fans/vent hoods are not exhausting the air out of the house, so the exhaust rates for those fans/vent hoods would not be included in the ASHRAE calculation.

ASHRAE Installation

18. What are the material specifications for an ASHRAE compliant fan?

Material specifications are identified in ASHRAE 62.2-2016 Section 7.

Selection and Installation: Equipment shall be tested in accordance with ANSI/ASHRAE Standard 51/AMCA 210. Installation shall be in accordance with manufacturer's design requirements and installation instructions.

Sound: A whole-building ventilation fan or continuous local exhaust fan (ASHRAE Fan) shall be rated for sound at a maximum of 1.0 sone; demand-controlled local exhaust fans (bath fan) shall be rated for sound at a maximum of 3.0 sones, unless their maximum rated airflow exceeds 400 cfm.

Termination Point requirement: All exhaust fans in the house must terminate outside at the completion of weatherization work. If more than one exhaust fan shares a common exhaust duct, each fan must be equipped with a back-draft damper to prevent recirculation of exhaust air through the exhaust ducting system.

19. Regarding ventilation, isn't it bad to pull in air from cracks or holes?

The quality of outdoor air is better than indoor air. Air will always infiltrate a home; this is the concept of 1CFM of air out= 1CFM of air in. This is why air sealing the attic, floor, and garage connection is so important. Restrict pulling unconditioned/unfiltered air from the attic, floor, basement, or garage by properly air sealing these areas.

20. How do you recommend Subrecipients add ventilation to first floor one-story apartments?

Regardless of location, exhaust fans are required to be ventilated to the outside. How ventilation to the outside is achieved would need to be determined on a case-by-case basis after consultation with contractor, property owner, and/or property management. If additional guidance is needed please contact Department training staff.

21. How can Subrecipients check the range hood in the kitchen with the flow hood?

Common solutions from within the network are utilization of cardboard, foam board, duct mask, etc. to reduce the opening size of vent hood to match the flow hood size so a reading can be obtained.

22. Does this mean every kitchen will be required to have an exhaust fan going to the outside? What if the bath fans move enough air to hit the required flow?

Not necessarily as there are multiple options to achieve ASHRAE compliance for each unit, increasing familiarity with the calculator and the intent of ASHRAE will help Subrecipients determine the best cost effective solution to achieve ASHRAE compliance. If the final blower door reading, existing exhaust fans, and operable windows in the house meet the ASHRAE ventilation requirements when input into the ASHRAE calculator, then there would be no reason to install a kitchen exhaust fan.

23. On a house with a flat roof that does not have exhaust fans or access to vent through the roof, how do Subrecipients address exhaust fan installation?

Through the wall fans, construction of a fur down for fan installation, or installing units in the ceiling with a separate access panel (similar to a plumbing access) to one side to allow for electrical/venting access are common solutions for this type housing. In regards to installing the electrical portion please consult with your licensed electrical contractor, as they will be familiar with how provide a power source to the fan in a retrofit application.

24. Does anyone have a solution to address ventilation in mobile homes? The main problem is how to get wiring to the fan.

Through the wall fans, construction of a fur down for fan installation, or installing units in the ceiling with a separate access panel (similar to a plumbing access) to one side to allow for electrical/venting access are a common solutions for this type housing. In regards to installing the electrical portion please consult with your licensed electrical contractor, as they will be familiar with how provide a power source to the fan in a retrofit application.

25. Can we terminate an ASHRAE vent to the attic, existing soffit vent, etc.?

No. Per Chapter 15, Section M1501.1, of the 2015 IRC the air removed by every mechanical exhaust system shall be discharged to the out-doors in accordance with Section M1506.2. Air shall not be exhausted into an attic, soffit, ridge vent, or crawl space.

Air Infiltration/Duct Sealing

General

1. How can we determine if we are using the most current blower door and duct blaster data sheet?

The latest form will be posted on the Department program guidance webpage:

- [Blower Door and Duct Blaster Data Sheet \(XLSX\)¹²](#)

Air Infiltration

1. How are Subrecipients meeting or exceeding BD target readings on a consistent basis?

Subrecipients who consistently meet their air sealing targets typically have a thorough initial assessment, effectively utilize diagnostic equipment to identify key leakage points, provide intensive staff training, have incorporated attic/crawl space sealing, and have developed a team approach (assessment, contract, and final inspection staff) within their air sealing process. Additionally, the subrecipients utilized many of the common practices identified within the SWS and Best Practices:

- [Single-Family Homes: Standard Work Specifications Field Guide¹³](#)
- [Manufactured Housing: Standard Work Specifications Field Guide¹⁴](#)
- [Principles of CFM Reduction Best Practice¹⁵](#)
- [Target CFM Drops Best Practice¹⁶](#)

Duct Sealing

1. Is the duct blaster test required?

Yes, units with functioning duct systems, require the duct blaster form to be completed by subrecipient's contracts and needed for justification of installation/exclusion of duct sealing measure.

2. On the new Blower Door sheet, there are spaces for pressure pan readings from both the initial and final inspection. Are we required to get these pressure pan readings on all the registers, including the return air?

Yes. The form requires these readings to be obtained to quantify any specific areas (individual duct runs or return air) that might need more attention/work performed to achieve or exceed the reduction target. Pressure pan readings should at minimum be below 1.0Pa at the final, ideally even lower (0.0 Pa being the ultimate goal).

3. Is there a reason pressure pan readings are now being required?

Yes, while duct blasters analyze duct system leakage and help quantify reduction subrecipients struggled to identify key leakage areas within the duct system. Pressure pans help to analyze leakage within individual runs of duct. As an effort to improve duct sealing and consistently reach/exceed the reduction targets, the use of pressure pans is now required.

4. How are Subrecipients meeting or exceeding DB target readings on a consistent basis?

Effective duct sealing is remarkably similar in principle to effective air sealing. Subrecipients who consistently meet their duct sealing targets typically have a thorough initial assessment, effectively utilize diagnostic equipment to identify key leakage points, provide intensive staff training, and have developed a team approach (assessment, contract, and final inspection staff) within their sealing process. Additionally, the subrecipients utilized many of the common practice identified within the SWS and Best Practices:

- [Single-Family Homes: Standard Work Specifications Field Guide¹⁷](#)

¹² <http://www.tdhca.state.tx.us/community-affairs/wap/guidance.htm#forms>

¹³ <https://www.tdhca.state.tx.us/community-affairs/wap/docs/SF-SWS-Guide.pdf>

¹⁴ <https://www.tdhca.state.tx.us/community-affairs/wap/docs/MH-SWS-Guide.pdf>

¹⁵ <https://www.tdhca.state.tx.us/community-affairs/wap/docs/WAP-BP-PrinciplesofCFMReduction.pdf>

¹⁶ <https://www.tdhca.state.tx.us/community-affairs/wap/docs/WAP-BP-TargetCFMDrops.pdf>

¹⁷ <https://www.tdhca.state.tx.us/community-affairs/wap/docs/SF-SWS-Guide.pdf>

- [Manufactured Housing: Standard Work Specifications Field Guide¹⁸](#)
- [Principles of CFM Reduction Best Practice¹⁹](#)
- [Duct Test Targets Best Practice²⁰](#)

LIHEAP Priority List

General

1. Will the updated LIHEAP Priority List require two separate assessments? One for the Major Measures and another for the Secondary Measures?

No, the updated LIHEAP Priority List should not have a dramatic change to the Whole House Assessment process. Subrecipients are expected to draft a work scope that will address all Major Measures in order before proceeding to Secondary Measures, but all potential measures will be determined based on the one assessment.

2. If a client refuses Major Measures, can we address Secondary Measures?

It is possible if the declined measure will not drastically affect energy savings from the whole house WAP approach. For example if the client wants to decline the installation of a refrigerator this could potentially be allowed due to having a limited effect on the whole house approach however if the client starts refusing a major measure such as attic insulation this could have a drastic effect on the whole house approach and be questionable. If a client starts refusing major measures and the Subrecipient is unclear on how to proceed please review, "[What do Subrecipients do when clients won't allow measures to be installed or try to pick/choose which measures they want from the work scope?](#)" FAQ from the *General Program Section* of this document to ensure the intent of the program is being served. After review if still in doubt, contact Department training staff to aid in the decision.

3. Is there any order you have to address Secondary Measures?

No. Once all Major Measures have been addressed Secondary Measures should be addressed based off what has the best potential energy savings impact for that household.

4. What happens when funding will not allow us to address a specific measure but we still have enough funds to address other smaller measures within the Priority List?

This question presents two (2) scenarios that must be taken into consideration.

- *Major Measures have not been completed*-subrecipients would document that funding did not allow them to proceed and conclude work.
- *Major Measures have been completed*-subrecipients could continue within the Secondary Measures to maximize expenditures.

5. Do we need to document why Secondary measures are not addressed?

While not a requirement this practice is strongly encouraged to document the subrecipients thought process when identifying Secondary Measures that offer the best potential energy savings for the client.

6. Is there going to be a unified Priority List form created by TDHCA for Subrecipients, or do Subrecipients create their own?

The Department provides an updated Priority List as part of the LIHEAP WX contract each year. Subrecipients can reformat the layout of the Priority List to allow documentation to justify the installation of the measures. Subrecipients must follow the order and guidance for the Priority List that is provided by the Department. There is a sample Priority List form on the Department website, in the document titled "[Whole House Assessment Sheet \(XLSX\)](#)"²¹; Subrecipients are welcome to use this document, edit this document to their liking, or utilize a locally developed form.

7. Is a whole house assessment required for LIHEAP units or will completion of the Priority List meet the requirement?

¹⁸ <https://www.tdhca.state.tx.us/community-affairs/wap/docs/MH-SWS-Guide.pdf>

¹⁹ <https://www.tdhca.state.tx.us/community-affairs/wap/docs/WAP-BP-PrinciplesofCFMReduction.pdf>

²⁰ <https://www.tdhca.state.tx.us/community-affairs/wap/docs/WAP-BP-DuctTestTargets.pdf>

²¹ <https://www.tdhca.state.tx.us/community-affairs/wap/docs/WAP-WholeHouseAssess.xlsx>

Yes, per Texas Administrative Code 6.416, each unit must have a whole house assessment completed.

8. How do Subrecipients determine if the SIR is one or greater without using the energy audit, and only going off the Priority List?

For LIHEAP houses, the utilization of the Priority List makes knowing a measure's individual SIR unnecessary (replacement of refrigerators and RACs are the exception & have their own form to justify replacement).

Major Measures

#1 - Health & Safety

1. What is the Department's guidance for the potential H&S issues?

Program guidance for specific H&S topics can be located on the Department website:

- [TDHCA Website \(Program Guidance\)](#)²²
- [TDHCA Best Practices](#)²³

#2 - Infiltration Measures

1. Are we still capped at \$1,000.00 for air infiltration?

No, due to the importance of air infiltration and in an effort to improve our network air infiltration results the Department has elected to remove the caps.

2. What happens if we do not meet our air infiltration targets for 75% of our houses weatherized?

You would be out of compliance with program requirements and at Compliance's discretion; they will have the ability to address poor air-sealing efforts.

3. What happens if compliance selects a number of units that do not meet air infiltration targets within their monitoring sample and we are not within the required 75% target for the units inspected?

Subrecipients must track air-sealing performance to ensure the 75% target requirement is achieved for both subrecipient management and compliance monitoring staff to review. It is strongly recommended to utilize the tracking spreadsheet on the Department website. Should monitoring inspections reveal concerns the monitor at their discretion could:

- Review the onsite monitoring inspection results vs. the subrecipient tracking spreadsheet to determine the accuracy of the tracking spreadsheet **AND/OR**
- Expand their current monitoring sample (add more units) to ensure compliance of the 75% requirement

4. If the glass pane in a window is gone, can this be a repair measure or is it air infiltration?

Either, however with air infiltration becoming a Major measure and the expenditure cap being removed it would make sense to address the glass pane utilizing air infiltration funds. Please refer to the "Window Repair or Replace" Best Practice for further guidance.

#3 - Duct Sealing

1. Are we still capped at \$1,000.00 for duct sealing?

No, in an effort to improve our network duct sealing results the Department has elected to remove the caps.

2. What happens if we do not meet our duct sealing targets for 75% of our houses weatherized?

You would be out of compliance with program requirements and at Compliance's discretion; they will have the ability to address poor duct-sealing efforts.

3. What happens if compliance selects a number of units that do not meet duct-sealing targets within their monitoring sample and we are not within the required 75% target for the units inspected?

Subrecipients must track duct-sealing performance to ensure the 75% target requirement is achieved for both subrecipient management and compliance monitoring staff to review. It is strongly recommended to utilize the

²² <http://www.tdhca.state.tx.us/community-affairs/wap/guidance.htm>

²³ <https://www.tdhca.state.tx.us/community-affairs/wap/wap-best-practices.htm>

tracking spreadsheet on the Department website. Should monitoring inspections reveal concerns the monitor at their discretion could:

- Review the onsite monitoring inspection results vs. the subrecipient tracking spreadsheet to determine the accuracy of the tracking spreadsheet **AND/OR**
- Expand their current monitoring sample (add more units) to ensure compliance of the 75% requirement

4. Can we replace the entire duct system now since the expenditure caps have been removed?

Yes if the current duct system is deteriorated and cannot be sealed to meet cfm reduction requirements the subrecipient would have the option to replace the complete duct system. The goal of duct sealing is to reduce, or eliminate duct system leakage.

#4 - Attic Insulation

1. What can Subrecipients do in situations where the local code requires R-38/49 attic insulation, but the existing attic R-value would only require a minimum amount of attic insulation to be blown? It does not seem cost effective to pay a contractor to set-up and blow a limited amount such as an R-13 (~4 inches) value of insulation when that money could be better utilized to address additional measures on the Priority List.

The Priority List clearly states, "If existing insulation is assessed as R27 or below, must insulate to meet current code."

2. What are we supposed to do regarding the insulation of attic hatches?

The attic hatch must be insulated to the same level as the attic. SWS guidance specifically describes this requirement. If the hatch isn't insulated to the same level as the attic, the uninsulated area creates a significant negative affect on the overall working attic R-value. If space is a concern contact Department training staff to discuss potential solutions.

3. Can we apply roof sealant to the roof of a mobile home to protect insulation?

If the Subrecipient is installing insulation in the attic of the mobile home through the roof or other techniques, then roof sealant could be a contributory item and charged as a contributory item to the attic insulation measure. If the Subrecipient is not installing insulation in the attic of the mobile home, then the subrecipient must ensure that all Major Measures are addressed before applying the roof sealant and address this as an Incidental Repair, which would be subject to the \$500 cap.

4. In reference to mobile home roof insulation, standard practice is to fill the cavity. Should Subrecipients assume that this Priority List allows the same technique? Should the cost to open and close the roof be included in the cost of insulation?

Yes, installation practices have not changed. Yes, the cost to open and close the roof for installation of attic insulation should be included in the cost of the attic insulation measure.

#5 - Sidewall Insulation

1. If Asbestos siding prevents wall insulation from being installed from the exterior and the client refuses installation from the interior can we document the refusal and proceed down the PL?

Wall insulation is a major measure and ample time should be taken to explain the whole house weatherization approach and potential energy savings. If the client continues to refuse the installation the subrecipient, review the guidance ["If a client refuses Major Measures, can we address Secondary Measures?"](#) FAQ in the *LIHEAP Priority List General Section*. Should questions remain please contact Department Training staff to aid with the determination.

3. With LIHEAP-WAP it mentions being able to paint. How much painting is allowed? What are the regulations? Are Subrecipients required to paint?

Concerning insulating walls from the inside, crews are required to patch holes and make paint ready. Painting is not a requirement, but Subrecipients may attempt to match the interior paint. Subrecipient should inform client that the touch-up color may not match existing paint perfectly and then let the client decide.

When insulating from the exterior, areas must be primed, painted, or sealed to protect the installed materials.

#6 - Floor Insulation

1. What about the possibility of insulating behind the existing skirting on mobile home?

If done properly, with proper moisture barrier and installation, this would be included in the floor insulation measure because you are re-defining the building envelope.

#7 - Refrigerator Replacement

1. Where can the refrigerator replacement tool be found to justify replacement based off usage?

TDHCA has posted an updated Excel Refrigerator Replacement Tool on the Departments website, which can be utilized to determine if usage would warrant refrigerator replacement.

- [Refrigerator Replacement Calculator \(XLS\)](#)²⁴

Secondary Measures

- Low-Cost Measures (Water Savers/Water Heater Tank/Pipe Ins. /Lighting (CFLs, LEDs)

1. From the expenditure standpoint Low-Cost Measures generally expend very little funds. What is their value and should we even bother installing these items any longer?

Although Low-Cost have been moved to Secondary Measures they often have a huge energy savings when analyzing their cost to savings ratio and are still highly recommended by the Department.

2. Since the priority list limits bulbs to ten (10) where should we install the bulbs?

A good practice is to have assessment staff interview the client and install the bulbs in commonly used locations where they will save the most energy. Generally, the replacement bulbs should be utilized a minimum of 4 hours per day.

3. We want to avoid damage to existing plumbing fixtures. Can we just not address water saving devices?

Keep in mind we need to do what is in the best interest to save energy for the client. Subrecipients should use extreme caution and make a reasonable attempt to address aerators/showerheads. If efforts are unsuccessful and/or present a liability that the plumbing fixture could be damaged the subrecipient should document the installation effort.

4. What if the water heater pipes are in poor condition and we are worried about the installation of pipe insulation causing a leak?

Clear documentation that could be verified by all parties would serve as ample justification when not addressing WH pipe insulation in this scenario.

5. Should we insulate all hot water heaters regardless of location?

Standby loss is a huge energy use for storage water heaters. Subrecipients often utilized outdated guidance that water heaters newer than 2004 do not need to be insulated, but in 2015 there were significant efficiency improvements mandated by DOE, which included increased insulation. Generally you should consider insulating all storage type water heaters older than 2015 regardless of location and consider insulating all water heaters located in unconditioned spaces.

- Smart Thermostat

1. Smart Thermostat- If client does not understand the use of a smart thermostat, can Subrecipients go to the next measure/item?

Yes, it is recommended subrecipients document the reason for any measures being installed, or any measures that are not being installed. If a household would not benefit from a smart thermostat (client always home; client unwilling to use properly), then document accordingly and move down the list.

- Solar Screens/Window Film

1. Is there an overhang requirement or shading guidance that can be utilized when replacing solar screens?

²⁴ <https://www.tdhca.state.tx.us/community-affairs/wap/docs/LIHEAP-WAP-Fridge-replacement-tool.xls>

Per WAP contracts, the 18" language was removed at the beginning of PY15. If the windows are shaded by porches, awnings, garages, or other permanent structures, which prevent direct sunlight from reaching the window, then solar screens/window film cannot be installed on that window.

2. Does the Department consider a tree a permanent shading structure?

No, the Department does not. Since Solar Screens/Window Film are now Secondary Measures the Department does rely on the Subrecipient staff to utilize their best professional judgment when considering the benefit of screens to the energy savings of that house.

3. This is a "weatherization program" with the focus of energy efficiency. How do Subrecipients justify installing solar screens on the north side of a unit?

Often times the orientation of a house makes it difficult to identify a true wall facing the North. The inclusion of the north side of the house for solar screen installation is simply to allow Subrecipients to have the option for screen installation should the windows on the North wall have the potential to receive direct sunlight; it does not make it a requirement to install solar screens on the north side of the house. If Subrecipients believe that it would be in the best interest of the client to omit solar screens on the north side of the home, then they should document accordingly and proceed to the next Secondary Measure item that would benefit the client on the Priority List.

- Incidental Repairs

Contributory Items, as defined by the Department, means items required by WAP field standards to achieve a final product in a typical installation. Contributory items must be necessary to complete the proper installation and ensure proper performance of the energy conservation measure (ECM).

- An ECM may include contributory items necessary for the proper installation of that ECM. The installed cost of all contributory items, associated with the proper installation, cannot exceed the cost of the individual ECM cost. Both the contributory and ECM costs are to be wrapped (included) for the total ECM cost.

Incidental Repairs, as defined by the Department, means those repairs necessary for the effective preservation of weatherization materials.

1. Are all repairs capped at \$500 or can Subrecipients do repairs tied to other measures and increase the amount allowed for repairs?

Keep in mind weatherization focus is to increase energy efficiency and not be a rehabilitation program. Repairs should be limited whenever possible. Repairs meeting the definition of Contributory Items which are needed for proper installation can be included in the associated measure costs and not be counted into the expenditure cap otherwise the repair would be subject to the \$500 expenditure cap.

Example: Minor roof repair needed for the installation of the attic insulation. If it were documented that the roof repair meets the definition of a contributory item the cost could be included in the attic insulation otherwise would be counted as an incidental repair and be subject to the expenditure cap.

2. Can incidental repairs be performed if we do not reach the Secondary Measures portion of the Priority List?

No. Contributory items can be installed along with the Primary Measure as you work down the Priority List, but the Subrecipient must reach the Secondary Measures before the incidental repairs will be allowed.

3. Can you elaborate on the difference between repair and replacement of mobile home skirting?

Mobile home skirting is an allowable expenditure under the Secondary Measure Incidental Repairs on the Priority List, as it can protect the integrity of the building, plumbing, duct system, and floor insulation (if applicable).

- HVAC/Evaporative Cooler Replacement

1. Can we have a professional perform the HVAC assessment and if so how can we charge the service?

Yes, HVAC assessments can be performed by an industry professional and the cost would be an allowable program support charge.

2. If Subrecipients has an HVAC professional do an assessment on the system and it does not need to be repaired/cleaned/replaced, can Subrecipients still pay our HVAC professional for the assessment?

Yes, this is still an allowable program support charge.

3. What is required to justify replacement of an existing HVAC system or window air conditioner?

Keep in mind, there must be proper documentation showing that all Major Measures on the PL were either already sufficient at time of assessment or have been addressed prior to reaching Secondary Measures on the PL. Subrecipients need to have documentation in the client file to justify the replacement of system/unit. Assessment justification must identify why the replacement is necessary and what process was used to make that determination. Examples of unacceptable assessment documentation for replacement include, but are not limited to: old – needs replacement; bad – needs replacement; doesn't work – needs replacement.

- For central HVAC systems, Subrecipients must use the Degradation Calculator Excel Tool on the Department's website to calculate the degraded AFUE/SEER of the exiting unit to determine if it can be considered for replacement, according to the current PL standards.
 - [Degradation Calculator \(XLS\)](#)²⁵
- For Room Air Conditioners, Subrecipients must use the Excel AC Tool on the Department's website to determine if a RAC can be considered for replacement.
 - [AC Replacement Calculator \(XLS\)](#)²⁶

4. Do Subrecipients have to supply both Manual J and Manual S in client files to justify sizing?

Yes. According to the LIHEAP contract, in the Priority List under item HVAC/Evaporative Cooler System Service, an accurate Manual J and Manual S must be in the client file to justify sizing for all Furnace/AC/HVAC replacements.

5. If Subrecipients repair/replace a central system, do Subrecipients need to remove and dispose of existing window units?

This situation would need to be determined on a case-by-case basis and require the subrecipient to determine if leaving the unit could have a negative impact to the overall energy savings of the house.

Things to consider:

- If the existing RACs are operable and sufficient, why is the central system being replaced?
- Is the RAC being left energy efficient or will using the RAC have a negative impact on the structures energy savings?
 - *"No replacement of window air-conditioners if a central system is replaced or repaired to working order"* is clearly stated within the Priority List

If leaving the existing RACs in place would not affect the overall energy savings then RACs would not need to be removed from the household, but the client should definitely be educated on operating the air conditioning systems in the house in the most efficient manner.

6. We have a working HVAC unit in very poor condition that does not meet the degradation for replacement, but the HVAC contractors' guidance is to not "repair/clean and tune" the system because of the system condition. All other Primary and Secondary measures have been completed; can it be acceptable leave this measure unaddressed?

Potentially yes. If the HVAC contractor can show that the HVAC unit was assessed and according to his/her professional opinion, they don't believe it is in the best long term decision of the HVAC unit to do a repair/tune-up for realistic reasons, then not touching the unit, with appropriate support documentation could be acceptable. Robust client file documentation should be retained for future reference should monitoring question the situation. The Department reminds Subrecipients that in this situation, if the household has not received many measures from the PL for legitimate reasons, like existing insulation, sealed ducts, etc., it might be in the clients' best interest to defer WX services at this time.

7. Are room air conditioners required to be sized and if so how do we size them?

²⁵ <https://www.tdhca.state.tx.us/community-affairs/wap/docs/Degradation-Calc.xlsx>

²⁶ <https://www.tdhca.state.tx.us/community-affairs/wap/docs/LIHEAP-WAP-AC-replacement-tool.xls>

For room air conditioners, manufacturers provide a sizing chart based off square footage in the window unit's specifications that can be utilized to ensure the unit is properly sized. Subrecipients should require their contractor to provide the sizing chart as part of their material specifications manual.

8. Do Heat/Cool Window Units have an energy star rating?

Window units with resistance heat will not be energy star rated. Heat pump window units (reverse cycle) can have an energy star rating. Details on requirement and available products can be located at the following:

- https://www.energystar.gov/products/heating_cooling/air_conditioning_room/key_product_criteria²⁷
- <https://www.energystar.gov/productfinder/product/certified-room-air-conditioners/results>²⁸

– Doors and/or Windows

1. What are the requirements to replace a door or window?

For LIHEAP-only houses: the Priority List states: *“Doors or windows that are structurally unsound or unable to be repaired may be replaced. Prior to replacement, Subrecipient must receive written Dept. approval. If prior approval is not received, costs are disallowed.”* There must be proper documentation showing the Major items on the PL were either already sufficient at time of assessment or have been addressed prior to reaching this item on the PL. Make sure the replacement doors and windows meet/exceed the material specifications requirement.

2. Are repairs of windows/doors no longer an option?

No, repairs of windows/doors are still very much an option, and very much encouraged. Repairs could be paid for under air infiltration or repairs, as always.

Example: Door and window repairs can include, but are not limited to patching door panel; replacement of door hinges; re-glazing windowpane; replacing broken windowpane.

²⁷ https://www.energystar.gov/products/heating_cooling/air_conditioning_room/key_product_criteria

²⁸ <https://www.energystar.gov/productfinder/product/certified-room-air-conditioners/results>