

# **Request for Weatherization Measure Pricing Quotations for Residential Turnkey Services**

## **Attachment 3 – Independent Installation Contractor Grade Scoring Methodology and Work Allocation Policy**

**Associated with the Mass Save Residential  
Turnkey Services Program as Administered by  
National Grid and Eversource**

RFQ Issued: April 2<sup>nd</sup>, 2025

Quotations Due: May 7<sup>th</sup>, 2025, 5:00 p.m.

**Independent Installation Contractor  
Grade Scoring Methodology and Work  
Allocation Policy for the Residential  
Weatherization Turnkey Services  
Program Administered by National Grid  
and Eversource**

4/2/2025

## **Introduction**

This document outlines the allocation of weatherization work generated by the Mass Save Residential Turnkey Services (RTS) Program to contractors for Eversource and National Grid. It details the calculation and measurement of each scoring component that contributes to a Contractor Grade, which establishes a Trade Ally's overall contractor grade. These grades will be used to rank the contractor pool, ensuring that contractors who achieve the highest grades remain eligible for allocation. The goal is to maintain the highest quality installations, which is why we score the work. Additionally, the document defines contractor statuses within the program and specifies eligibility criteria for performing work on behalf of Mass Save.

### **1.0 CONTRACTOR STATUS**

Contractor status is intended to identify contractors' standing in the program and provide program management guidance regarding the contractors' ability to successfully respond to work order assignments. Status will identify contractors who have violated the tenets of the contractor participation agreement, or whose performance does not meet the expectations of the program.

#### ***2.0 Provisional Status***

All new contractors to the program gain Provisional Status by executing a program participation agreement and meeting the terms & conditions, and requirements outlined in the agreement. Provisional Status contractors are scored along the lines outlined later in this document. Provisional Status contractors that enroll in the program are expected to bring their own customers to the program through the contractor referral process until such time that they achieve Active Status. Provisional Status contractors are required to satisfactorily complete an appropriate number of jobs to result in 5 inspections within the first three (3) months of entering the program. These initial five inspections will be averaged to determine their work quality component. The completion of the work quality component will be the trigger to achieve active status. If the Contractor's initial work quality grade is 8.0 or better, Active Status is achieved. Contractors with an initial grade below 8.0 or who do not bring in an adequate number of jobs to achieve 5 inspections over three months, will be moved to Probationary status.

#### ***3.0 Active Status***

Active status contractors have proven that they can meet the program expectations and can be eligible for participation in the program and assignment of work through the Merit Based Work Allocation System.

To maintain Active Status, contractors are expected to maintain program participation standards. Contractors who do not meet those standards will be placed in the Probationary Status and will not be eligible for work assignment through the program. Any Active Status contractor, regardless of their

contractor grade, may be placed in the Probationary Status if there is a Work Quality Emergency Failure (the home has been left in a serious health and safety situation), program fraud is committed, or an egregious customer service escalation occurs as determined by the program. Active contractors can also have their allocation “turned off” for failing to meet program time to serve or other program requirements. This does not change their status, it only suspends their work allocation until those issues are corrected.

#### **4.0 Probationary Status**

Contractors who do not maintain the standards described in the Provisional or Active Statuses will fall into the Probationary Status. Once on probation, no jobs will be assigned to a contractor, and any jobs that had been assigned and were not started may be reassigned. Any new work will need to be brought into the program by the contractor until their status changes. A clear work plan for moving to Active Status will be presented to and agreed to by the contractor. This work plan will be prepared by the Lead Vendor in consultation with the client.

If a contractor is placed on probation for a Work Quality Emergency Failure (e.g., the home has been left in a serious health and safety situation), the Program will undertake additional retroactive investigation to ascertain whether the issue is isolated or part of a pattern of problems. A pattern of problems may be grounds for moving to Suspension/Termination.

Contractors could also be placed on Probationary Status for failing to meet certain vital health and safety, regulatory, scheduling and backlog management or other programmatic requirements articulated elsewhere in the Contractor Participation Agreement.

#### **5.0 Suspension/Termination Status**

Contractors who fail to improve after being placed on probation will be suspended/terminated. At the point the contractor is suspended/terminated, all jobs that have not been completed would be reassigned to other contractors. If a suspended contractor wanted to re-enter the program, they would need to serve their suspension and then provide evidence that the problems have been corrected and could enter as a Provisional Status contractor. Contractors could also be suspended/terminated for failing to meet certain vital health and safety, regulatory, scheduling and backlog management or other programmatic requirements articulated elsewhere in the Contractor Participation Agreement. Depending on the level of the violation a contractor may move directly to suspension or termination without moving through probationary status.

### **6.0 ALLOCATION POLICY**

The Mass Save Residential Turnkey Services Single Family Program for National Grid and Eversource will be divided into two groups based on the contractors' bid scores in the RFQ: Contractors that will receive Work Allocations and Contractors that will not receive Work Allocations.

Contractors in the Allocation Group will be offered all program-allocated work on a zone-by-zone basis. Projects distributed will be on a revolving basis, at a ratio set in consultation with the Program Administrators. . The distribution cycle will start with the highest ranked contractor in the Allocation group, based on their overall contractor grade., The cycle will repeat until all contractors exceed their time to serve limit or Lead Vendor circuit breakers are tripped, indicating that the Allocation Group cannot serve customers in a timely manner. Any work that cannot be completed by the contractors in the Allocation Group will then be preferentially distributed to the highest-ranking contractors not in the Allocation Group based on their bid scores and overall contractor score defined below. Contractors in the Allocation Group must maintain a contractor score of 9.0 or higher to remain in the Allocation Group. All work is filtered by geography and the technical limits of the contractor before assignment.

Contractors not in the Allocation Group will be ranked according to their bid scores, with the highest-ranked contractor being the one with the most competitive bid score. If the circuit breakers are tripped for a certain zone and the Allocation Group cannot serve customers in a timely manner, the highest-ranked contractors not in the Allocation Group will be eligible to receive allocated work. To receive allocated work, however contractors not in the Allocation Group must maintain a Contractor score equal to or greater than 9.0. If the highest-ranked contractor does not have a score of 9.0 or higher, the next highest-ranked contractor will be eligible for the available work. The distribution of allocated work to contractors not in the Allocation Group will be at the discretion of the Lead Vendor.

If a contractor in the Allocation Group fails to maintain a contractor score of 9.0 or higher for three consecutive months, they will be removed from the Allocation Group. The highest-ranked contractor not in the Allocation Group will then have the opportunity to move into the Allocation Group if they have a contractor score of 9.0 or greater and are willing to cover the geographical area. The contractor that dropped out of the Allocation Group will remain there as the highest-ranked contractor. If another contractor falls out of the Allocation Group, the contractor may be eligible to move back into the Allocation Group, provided they have a contractor score of 9.0 or higher and meet any necessary requirements from the Lead Vendor.

The contractor scoring concept is a vital component of an integrated contractor management system and is linked to the contractor program participation agreement, as well as associated contractor statuses. Program status determines how much (if any) work will be allocated to a contractor, while providing clear cause and support for removal from the allocation.

## **7.0 SCORE COMPONENTS**

### ***8.0 Work Quality Score***

The quality of work is an important component of the scoring system as it is paramount to achieving predicted energy savings, has a large impact on customer satisfaction, and is integral to a positive evaluation of the overall program. Quality of work is established through a quality assurance site inspection by a trained QA inspector.

The Work Quality score is derived in three steps:

1. Establish the total number of available points for a given job. A job may consist of one or more Energy Efficiency Measures or EEMs.
2. Assign the number of points that the installing contractor has earned based on the completeness and quality of the work; and
3. Calculate a normalized Work Quality score by dividing the points earned by the available points and then applying a modifier if a return visit is required.

The details of the steps are as follows:

### **a.1 - Establish the total number of available points for a given job.**

Point values are assigned to all tasks within each EEM (See **Exhibit I: Energy Efficiency Measures**). The point system weights tasks by assigning more points to tasks that are considered more important to an EEM. Task weighting was determined using the professional judgment of the Lead Vendor Quality Control Manager and consultation with peers.

However, some tasks are not applicable at certain jobs and some tasks cannot be inspected because of site conditions. The point values for these tasks are also not counted toward the total available points for the job.

Therefore, the total available points for the job are equal to the sum of the assigned points for all applicable and inspected tasks on the job. This number defines a perfect score for the job.

### **a.2 - Assign the number of points that the installing contractor has earned based on the completeness and quality of the work.**

At each inspection, the QA inspector will evaluate the EEMs and associated tasks that were performed at that site. Every task will be rated by the inspector on a six-choice scale, with each rating determining a multiplier to be applied to the total available points for that task.

The following table provides scores, descriptions, and multipliers.

EEM Ratings		
Rating	Description	Multiplier
Pass	Work was performed correctly.	1.0
Conditional Pass	Work was performed but minor issues were found that should be communicated to the contractor.	0.67
Fail	Work was performed poorly or was not performed. Return visit or billing adjustment almost always required. In some circumstances, the inspector may be able to correct the issue.	0
Safety Issue	The worksite was left in a dangerous condition requiring immediate action to safeguard the occupants or structure. There does not need to be an emergency actually occurring at the time of the inspection; rather, the conditions must have created the potential for an emergency to occur.	0
Not Inspected	Work that could not be inspected due to site conditions and therefore is not included in point calculations.	None
Not Applicable	This task was not applicable to the site, and therefore is not included in the point calculations	None

### **a.3 - Calculate a normalized Work Quality score by dividing the points earned by the available points and then applying a modifier if a return visit is required.**

The Work Quality score will be calculated by dividing the sum of the points earned by the total available points. The resulting 'percentage achieved' is then multiplied by 10 to normalize the score on a 10-point scale.

That score will then be multiplied by a modifier of either 1, if a return visit is not needed, or 0.70 if a return visit is needed and it has been determined that the contractor is at-fault.

Measurement period:

- Work quality scores will be calculated using scores from completed inspections in the past 90 days from the 1<sup>st</sup> of the month. If a job was inspected more than 90 days after the installation it will not be counted.

A return may be considered a “no fault” under the following circumstances:

- When a return would not be required by program but needed due to a customer request.
- When there is inconclusive evidence as to whether contractor or homeowner caused damage/issue
- When program rules have changed such that a return is now required for previously approved practices
- When an improper work scope leads to an improper but directed installation of a measure in need of remediation.
- No points are deducted for a “no fault” return.

## 9.0 Customer Service Score

Customer service by the contractor is a high priority for Lead Vendor clients as it often impacts the overall program impression of the customer. While there are various means of gauging customer satisfaction with various aspects of a program, customer satisfaction with a contractor's work will be measured through a short list of questions posed by the Lead Vendor QA inspector at the time of the inspection. This approach is being taken to ensure that there is customer service data for each job inspected.

The Customer Service scores is derived in two steps:

1. Assign the number of points that the installing contractor has earned based on a set of customer service questions: and
2. Calculate a normalized Customer Service score as a function of the individual customer service element scores.

The details of the steps are as follows:

### b.1 - Assign the number of points that the installing contractor has earned.

Each customer service element will be rated by the customer on a five-choice or 2 choice scale, with each rating determining a multiplier to be applied to the total points available for that element. The following table provides scores, descriptions, and multipliers.

Customer Service Ratings		
Rating	Description	Multiplier
Extremely Satisfied	Contractor exceeded the expected level of service	1.00
Very Satisfied	Contractor met the expected level of service	1.00
Satisfied	Customer did not feel strongly either way	0.70
Somewhat satisfied	Contractor provided a substandard level of service	0.40
Not at all	Contractor provided an unacceptable level of service	0.00
Not applicable	Intended to reflect that Customer could not or would not give score; does not calculate into available points.	0.00
Yes	Contractor met the expected level of service	1
No	Contractor did not meet the expected level of service	0

### b.2 - Calculate a normalized Customer Service score as a function of the individual customer service element scores.

The customer service score will be calculated by dividing the sum of the points earned from the survey by the sum of the total available points. The resulting 'percentage achieved' is then multiplied by 10 to normalize the score on a 10-point scale.

Measurement period:



- Customer service scores will be calculated using scores from completed inspections in the past 90 days from the 1<sup>st</sup> of the month. If a job was inspected more than 90 days after the installation it will not be counted.

*10.0 Administrative Score - The completeness and accuracy of the documentation submitted as part of the invoicing process, directly impacts the speed with which the Lead Vendor can process the invoices. This directly impacts invoicing and reporting on jobs to the utility client. Incomplete and/or inaccurate documentation delays the resolution of work and can result in the wrong incentive being paid as well as improper savings reported, all of which impact the overall integrity of the program.*

When the invoice package is received, it is rated based on 6 questions to complete the Administrative score:

1. Discrepancies in documentation (COC, Invoice, Combustion Safety Test form, Combustion Safety Disclosure form, Air sealing work order, Change order)
2. Recorded and submitted pre and/or post test results appropriately.
3. Invoiced in a timely manner (within 7 days of completion)
4. The invoice reflects accurately the contract and any change orders.
5. Returned calls/emails to LV contract staff in a timely fashion.

The Administrative score will reflect how well the contractor is actually completing the work as specified and documenting any conditions or changes that are made to the site.

The Data/Documentation Quality score is derived in four steps:

1. Establish the total number of available points for each question for any given invoice package.
2. Assign the number of points that the invoice package has earned for each question.
3. Calculate normalized scores for each question; and
4. Calculate a normalized Administrative score by combining the scores for each question.

The details of the steps are as follows:

### **c.1 - Establish the total number of available points for each question.**

#### **1. Discrepancies in documentation (COC, Invoice, Combustion Safety Test form, Combustion Safety Disclosure form, Air sealing work order, Change order) (Available points 10)**

This question looks for matching information on the Trade Ally's COC, Invoice, Combustion Safety Test form, Combustion Safety Disclosure form, Air sealing work order, Change order. Lead Vendor Admin rates whether there are any discrepancies between the data/doc elements.

#### **2. Recorded and submitted pre and/or post test results appropriately (Available points 2)**

All data fields in data/doc element were completed and contain reasonable entries. This includes but is not limited to blower door pre and post tests and Combustion Safety testing.

**3. Invoiced in a timely manner (Available points 6)**

The Lead Vendor administrative staff person will confirm the invoice was submitted and approved within 7 days of completion of the job, verifying the completion date in the system and the signed date on the COC.

**4. Returned calls/emails to LV contract staff in a timely fashion (Available points 2)**

When and if needed a Lead Vendor administrative staff person may reach out to a trade ally with questions. The Trade Ally is expected to respond in a timely fashion.

**c.2 - Assign the number of points that the invoice package has earned for each question.**

After completing the work, the contractor will submit to Lead Vendor the invoice package for rating.

**Discrepancies in documentation (COC, Invoice)**

Discrepancies in documentation (COC, Invoice, Combustion Safety Test form, Combustion Safety Disclosure form, Air sealing work order, Change order)		
Rating	Description	Available Points
Satisfactory	Admin can process the job with submitted data/documents. No discrepancies in COC, Invoice, Combustion Safety Test form, Combustion Safety Disclosure form, Air sealing work order, or Change order.	10.0
Unsatisfactory	Admin must ask Trade Ally for some additional documentation or to make corrections.	0
NA	This question is not scored	Not counted

**Recorded and submitted pre and/or post test results appropriately.**

Recorded and submitted pre and/or post test results appropriately		
Rating	Description	Available Points
Satisfactory	All data fields in data/doc element were completed and contain reasonable entries (i.e., not necessarily correct, but plausible)	2.0
Unsatisfactory	One or more data fields in data/doc element were either not completed or contain an unreasonable entry (e.g., phone number on CFM50 field)	0
NA	This question is not scored	Not counted

**Invoiced in a timely manner.**

Timeliness		
Rating	Description	Available Points
Satisfactory	All applicable data/doc elements were submitted within 7 business days from job completion (the customer signature date on the COC).	6.0
Unsatisfactory	A single submittal with all applicable data/doc elements was not received within 7 business days from the customer signature date on the COC. This includes any case in which multiple incomplete (i.e., not containing all applicable elements) submittals were sent, even if when combined all were received before the 7-day deadline.	0
NA	This question is not scored	Not counted

#### **Returned calls/emails to LV contract staff in a timely fashion.**

Returned calls to LV contract staff in a timely fashion		
Rating	Description	Available Points
Satisfactory	Response times were reasonable	2.0
Unsatisfactory	Response time was not reasonable	0
NA	This question is not scored	Not counted

Measurement period:

- Administrative score will be calculated using scores from completed inspections in the past 90 days from the 1<sup>st</sup> of the month. If a job was inspected more than 90 days after the install, it will not be counted.

#### **11.0 Customer Recruitment:**

Contractor's marketing efforts are important component to supplement the work provided by the LV. Being focused on bringing in customers helps contractors navigate through slower times of LV work, while also aiding the utility clients in meeting program goals and targets for the year.

The Customer Recruitment Score is derived from referrals sent in from contractors that result in completed weatherization work. Other rules and restrictions may apply and will be communicated outside this methodology.

##### **d.1 - Definition of a referral**

A referral is a customer that has not been served by the program in the past 3 years. That customer must be submitted by the contractor with the required information and documentation through the LV process. Direct weatherization, Expedited Contractor Referrals (ECRs), and Participating Contractor Referrals (PCRs) are all effective ways for trade allies to bring additional customers into the program. Customer requests do not count as referrals.

##### **d.2 - Establishing Customer Recruitment Score**

The program will set a target of 5% of total work completed for the year by a trade ally must be from either Direct Wx, ECR, or PCR generated customers. The trade ally generated work percentages will then be compared to the program standard. Points will be awarded based on a percentage below target. Trade allies can score up to 100 points. Which is then divided by 10 to align with the 10-point scale of all scoring components.

Examples (percent and scores can fall anywhere between these examples)

Percentage	Points	Score
≥5%	100	10
2.50%	50	5
0%	0	0

## 12.0 COMPONENT WEIGHTING

The component weighting supports the overall program goals as set by the PAs, in that it allows a PA or PAs to set preferences for relative importance of each component. The Component Weighting criteria are set prior to the rollout of the program through consultation with the PAs. Weighting is subject to change at any time to align to the program's needs or targets.

The weighting for the Job Score components is as follows:

Score Component Weights IICs	
Component	Weighting
Work Quality	60%
Customer Service	15%
Administrative	15%
Customer Recruitment	10%
<b>Total</b>	<b>100%</b>

## 13.0 CALCULATION OF THE CONTRACTOR GRADE

The calculation of the contractor grade is determined by multiplying the component score by its assigned weighting. Sum the weighted scores and round to the nearest hundredths place.

Example	Overall Grade 9.11			
Category	Work Quality	Customer Service	Administrative	Customer Recruitment
Score	9.75	9.65	8.75	5.0
Weight	0.6	0.15	0.15	0.1
Result	5.85	1.45	1.31	0.5

## 14.0 EXHIBIT I: ENERGY EFFICIENCY MEASURES

Knob and Tube Wiring is not a scored item; however, it should be dealt with as follows if discovered:

Knob & Tube Wiring				
Task	Description	Pts	Return	Homeowner Follow Up
<b>Knob and Tube Wiring (SI!)</b>	If there is knob and tube wiring covered by insulation, the inspector should ask for the letter from the electrician certifying that it is deactivated. <b>If there is no letter, then it is a Safety Issue.</b>	N/A	ASAP	Inform the HO that this type of wiring should not be insulated over and that an electrician should have examined and signed off that the wiring is inactive before work proceeded. Either the contractor or electrician shall be made to return immediately.

Attic Air Sealing				
Task	Description	Pts	Return	Homeowner Follow Up
Top Plates Sealed	This refers to all interior and exterior wall plates.	1	-	-
Knee Wall Transition Bypass Sealed	Specific to the floor joist transition where an unfinished floor area meets a finished space at a kneewall.	1	-	-
Plumbing Wet Wall(s) Sealed	This includes not only the vent penetration but the wall plate or opening itself which may be a sizable gap requiring an approved backer.	1	-	-
<b>Chimney Penetration(s) Sealed (SI!)</b>	This can include masonry chimneys or metal flues. Fireproof materials must be used here.  This task can receive a Conditional Pass or a Fail if fireproof materials are installed, but the quality of the work is either poor (fail) or could be improved by an FYI (conditional pass). <b>Safety Issue if NON-fireproof materials were installed.</b>	1	ASAP	Inform the HO that the chimney/flue clearance to combustibles does not meet program standards and will need to be adjusted.
<b>Recessed Lights Covered/Sealed (SI!)</b>	This would also refer to covering material (tops and sides) and clearance from the fixture.  This task can receive a Conditional Pass or a Fail if the correct materials are used and the specified clearances are maintained, but the	1	48 Hrs	Inform HO that recessed lights clearances to combustibles does not meet program standards and will need to be adjusted. The HO should be made to

	quality of the installation is poor (fail) or could be improved by an FYI (conditional pass). <b>Safety Issue if correct materials are NOT used or specified clearances are NOT maintained.</b>			understand that the recessed lights are not to be used until the situation is addressed.
Attic Access(s) Sealed	This could include the insulated attic access cover.	2	-	-
Drop Soffit Area(s) Sealed	Approved material used and sufficiently supported.	1	-	-
Mechanical Chase(s) Sealed	Includes AC/heating boots	1	-	-
Attic Level Transitions Sealed	This refers to sealing the open wall bays where top plates should be when an attic transitions from one level to another.	1	-	-
Bath Fans Sealed	Self-explanatory.	1	-	-
Air Barrier (e.g., Rigid Board) Properly Installed Over Open Cavities	The air barrier must be consistent – no gaps and sealed seams and edges.	1	-	-

Attic Insulation				
Task	Description	Pts	Return	Homeowner Follow Up
Presence of Continuous Air Barrier Verified Prior to Insulating	If there were any problems found in the air sealing inspection, then the air barrier is not continuous and therefore the contractor did not verify it prior to insulating.	1	-	-
Specified R-Value Installed	Correct depth installed, as measured by the difference between final and pre-existing depth and matches what is specified on the work order.	1	-	-
Insulation Quality: No Gaps, Voids, or Compression (includes non-Densepack enclosed cavities)	All applicable areas insulated. Blown insulation must be level. Batt insulation must be installed across joists with no air space between layers. Enclosed spaces must be filled. Square footage of installed insulation matches what was specified to within +/- 10%.	1	-	-
<b>Heat Sources Dammed (SI!)</b>	Includes recessed lights, fan/light combos, heaters, chimneys, flue pipes, kitchen exhaust ducts. Heat sources are singled out for damming in this task because they are a potential fire hazard.  This task could receive a Conditional Pass or Fail if the correct materials were used and the specified clearances were maintained, but the dam itself does not perform the task	1	Varies	If heat source can be made temporarily safe by not using it, inform the HO to not use it and have the contractor return to fix it within 48 hrs. If it is the type that cannot be shut off, then the contractor shall return ASAP to fix it.

	it was installed for. This may include not extending far enough above the blown insulation to serve as an effective dam or not be secured or fastened well enough to remain in place for its' expected life years. <b>Safety Issue if fireproof materials were NOT installed.</b>			
Wind Baffles Installed	The bottom of the vent chute blocked properly with an air impervious barrier to prevent wind wash and insulation spillage.	1	-	-
Vent Chutes Properly Installed	Also known as propavents, they maintain an air passageway from the soffit up the roof slope.	1	-	-
Exhaust Fans Vented as Specified	Bathroom vent fans connected with an insulated hose to an approved termination outside of the attic.	1	-	-
Attic Venting Installed as Specified	Correct amount installed and was installed properly (i.e., no leaks, no straddling rafters, etc.).	1	-	-
Densepack: Installed Material is Densepacked	Self-explanatory.	1	-	-
Site Restored to Original Condition	No messes left behind, doors and hatches were closed properly, storage square footage was maintained.	1	-	-

Wall Insulation		
Task	Description	Pts
Specified R-Value Installed in Open Cavities	Self-explanatory.	1
IR Scan Detects No Gaps, Voids, or Compression	Self-explanatory. See the M&I Appendix TBD for IR scan procedures. Square footage of installed insulation matches what was specified to within +/- 10%.	2
Drill Holes Patched Properly	Plugged and one layer of spackle. This is for interior Drill and Blow.	1
Drainage Plane Repaired	Tyvek, EPS, or tar paper layer repaired so it sheds water shingle style.	2
Cladding/Sheathing Properly Repaired	Siding was replaced properly.	1
Site Restored to Original Condition	No messes, damaged landscaping, poor touch-up paint, etc.	1

Basement/Crawlspace Air Sealing (Incl. Frame Floor Over Ambient)				
Task	Description	Pts	Return	Homeowner Follow Up
Plumbing Penetrations Sealed	Self-explanatory.	1	-	-
Wiring Penetrations Sealed	Self-explanatory.	1	-	-
Chimney Chases Sealed (SI!)	Must use fireproof materials and methods.  This task could be a CP or Fail if the correct materials were used, but the workmanship was too poor for the task to perform its intended function. This task could be a CP if the materials are correct, it performs its' function, but the workmanship could be improved by an FYI to the installer. <b>Safety Issue if fireproof materials were NOT installed.</b>	2	ASAP	Inform HO that clearances to combustibles does not meet program standards and that it will need to be adjusted.
Mechanical Chases Sealed	Approved material adequately fastened. Just like the attic this can include heating and cooling boots.	2	-	-
Rim and Band Joist Sealed	This would include open balloon framing.	2	-	-
Basement Access Sealed	Depending on where the thermal boundary is set, this may be from exterior to basement or from basement to living space.	1	-	-
Ground Cover Installed and Sealed	Vapor barriers over dirt floors.	2	-	-
Windows Caulked or Foamed	Depending on where the thermal barrier is set. If the basement is considered conditioned, then the windows should be made tighter if possible.	1	-	-

Basement/Crawlspace Ceiling Insulation (Incl. Frame Floor Over Ambient)		
Task	Description	Pts
Specified R-Value Installed	Self-explanatory.	1
Insulation properly installed	Insulation should be touching the floor it is keeping warm. No gaps between the insulation and the floor sheathing.	2
Rigid Board Insulation Is Continuous Without Gaps or Voids	This includes sealed seams and edges, as well as properly covering exposed edges of foil-faced and FSK board with foil tape. (not required on extruded polystyrene). Square footage of installed insulation matches what was specified to within +/- 10%.	1
Site Restored to Original Condition	No messes left behind, do doors and hatches were closed properly, storage square footage was maintained.	1



Basement/Crawlspace Wall Insulation (Includes Rim & Band Joist)		
Task	Description	Pts
Exposed rigid foam board or spray foam has a thermal barrier, if required	Foam board should have no areas of exposed core. Spray foam is required to have intumescent paint.	1
Rim and Band Joist Properly Insulated	Fiber glass or Rigid Board Insulation is continuous without gaps voids, or compression	1

Living Space Air Sealing (Garage Wall Mandatory)		
Task	Description	Pts
Interior wall penetrations sealed	Use a compatible material that can be finished by the homeowner.	1
Ext. Doors Swept and Weather stripped	Q-lon with backer or approved material.	1
Doors to Attached Garage Weather stripped	Q-lon with backer or approved material.	1

Combustion safety Visual Inspection				
Task	Description	Pts	Return	Homeowner Follow Up
Correct Fuel Identified	Correct test performed for fuel type.	1	-	-
Located All CAZ	All equipment was tested, and the depressurization set up accurately defined the CAZ. In homes with multiple CAZ, all were located and tested.	2	-	-
Correct Venting Type Identified	This will come from the TAs test results form also from whether or not the TA drilled holes or got test results. The TA must have also performed the correct tests based on the type of venting system.	2	-	-
Identified Any CAZ or Appliance Related Safety Issues (SI!)	Issues include detached or corroded flue pipes or problems with size or pitch, problems with DHW relief valve, broken or kinked oil lines, water leakage, open returns, no air filter, etc. Contractor should have corrected any issues.  All of these issues can be either a Fail or a Safety Issue. They are a Fail if they exist, but the house is not imminent danger of explosion	1	ASAP/48 Hrs	This is a broad category. If the situation places the HO in immediate danger (elevated CO or gas levels) they should be asked to evacuate, and the contractor shall return immediately. Otherwise, the HO should be informed that the task does not meet program standards, and that the contractor will return within

	or fire, and the ambient CO is not elevated due to the problem.			48 hrs to adjust. Specific guidance can be offered depending on the situation.
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Testing Inspection				
Task	Description	Pts	Return	Homeowner Follow Up
All Significant Gas Leaks Were Detected & Repaired (SI!)	Contractor's gas leak results must match inspectors.  <b>Any gas leak that can be verified with a soapy solution should be considered a Safety Issue.</b>	1	ASAP	Each program should follow their client's procedures for this emergency.
Correctly Measured CAZ(s) De-pressurization (SI!)	Contractor's results must match inspectors. Includes proper set up of exhaust appliances and doors.  If the CAZ fails the depressurization limit, but the appliances still pass spillage and draft under worst case this is a Fail. If the CAZ fails the depressurization limit, and under natural conditions the appliances fail spillage or draft, it is a Safety Issue.	1	24 Hrs	Inform the HO that the combustion testing has revealed a situation that does not meet program standards, and that the contractor will need to return to adjust. If possible, make temporary adjustments to the CAZ to provide pressure relief and instruct the HO not to undo the temporary fix.
Spillage Assessment Correct (SI!)	Contractor's results must match inspectors.  Spillage is occurring under worst case conditions, but not causing unsafe levels of CO would be a Fail. <b>Spillage occurring at worst case that does cause unsafe levels of CO or any spillage that occurs under natural conditions should be considered a Safety Issue.</b>	1	24 Hrs	See #2 above. If pressure relief to the CAZ does not stop spillage, the appliance should be turned off and the contractor shall return immediately.
Draft Measurements Correct (SI!)	Contractor's results must match inspectors. Includes test hole drilled in correct location.  <b>Failure of the draft test under natural conditions or failure at worst case that is causing spillage and unsafe levels of CO is a Safety Issue.</b> Failure at worst case that is not spilling is a fail.	1	24 Hrs	See #2 above. If pressure relief to the CAZ does not stop spillage, the appliance should be turned off and the contractor shall return immediately.

Ambient CO Measurements Correct (SI!)	Contractor's results must match inspectors.  <b>Ambient CO that exceeds 35 ppm under any circumstances is a Safety Issue. Ambient CO that exceeds 9 ppm (OSHA 8-hour exposure limit) under non-testing conditions is a Safety Issue.</b>	1	ASAP	If CO exceeds 35 ppm during testing, inform HO that house is temporarily unsafe and recommend leaving until ambient CO level returns to safe levels. If baseline CO is more than 9 ppm but less than 35, inform HO that house is not safe to be in for long periods of time and recommend that they have the system evaluated by a BPI certified HVAC contractor.
Appliance CO Measurements Correct (SI!)	Contractor's results must match inspectors. Includes number of results.  <b>Appliance CO measurements should only be considered a Safety Issue if they are combined with either spillage or draft test failures in natural conditions.</b> Otherwise, it should be considered a Fail and the Action Levels Table referred to.	1	ASAP	Inform HO that appliance is producing unsafe levels of CO and not venting properly. Recommend turning off appliance and having it evaluated by a BPI certified HVAC contractor.
Test Results Interpreted Correctly	Contractor's actions must be consistent with BPI's Combustion Safety Test Action Levels Table based on the results of their combustion testing.	3	-	-

Duct Sealing				
Task	Description	Pts	Return	Homeowner Follow Up
Approved material used as sealant	Self-explanatory.	1		
All field seams sealed	Self-explanatory.	1		
All manufacture's seams sealed	Self-explanatory.	1		
Filter slot treated	Self-explanatory.	1		

Boots sealed to interior material	Self-explanatory.	1		
Air handler sealed	Self-explanatory.	1		

Duct Insulation				
Task	Description	Pts	Return	Homeowner Follow Up
Correct R-value installed	Self-explanatory.	1		
Insulation snug not compressed	Self-explanatory.	1		
Seams stapled securely	Self-explanatory.	1		
Vapor retarder continuous	Self-explanatory.	1		
Vapor retarder sealed w/duct tape	Self-explanatory.	1		

Blower Door Testing				
Task	Description	Pts	Return	Homeowner Follow Up
Contractor's post-test within 10% of inspector's post-test	Self-explanatory.	3		
Post-test CFM 50 greater than or equal to 70% of BAS	Self-explanatory.	3		

## 15.0 EXHIBIT II

Question	Scored	Possible points
Overall, how satisfied were you with the scheduling process with your contractor for your insulation work?	Yes	1
Did the contractor arrive during the time window specified?	Yes	1
If not, did the contractor clearly communicate any delays prior to arrival?	Yes	1
Did the contractor present themselves professionally with identification?	Yes	1
How satisfied were you with the contractor's explanation of the work to be performed?	Yes	1
Did the contractor answer all your questions? If no, please explain in the comments section.	Yes	1
How satisfied were you with how well the contractor cleaned up following the installation of insulation and/or air sealing?	Yes	1
Would you recommend this contractor to a friend or family member?	Yes	1