Low-Income Weatherization
Standard Offer Program (LIWSOP)

2023 Program Manual
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1 INTRODUCTION

Welcome to the 2023 Oncor Low-Income Weatherization Standard Offer Program. The LIW SOP provides incentives to registered, approved energy efficiency service providers to implement electric energy efficiency projects at Oncor residential customer locations. This program manual is a guide to LIW SOP requirements and processes for our network of participating service providers.

This program complies with the standard offer program requirements published by the Public Utility Commission of Texas (PUCT). This program manual is intended to inform service providers of the program requirements and processes. However, service providers should also review the PUCT rules related to energy efficiency programs and the requirements in the TRM for energy efficiency programs, and are required to comply with such rules and requirements.

This manual summarizes program requirements, processes, and incentives but may not address all scenarios. Oncor has full discretion to interpret or modify requirements and may revise the manual at any time.

Visit the Oncor Energy Efficiency Program Management (EEPM) tool, available at https://www.oncoreepm.com/, to access additional registered service provider resources, including service provider applications, incentive applications, savings calculators and project documentation tools, as well as program rules and incentive budget updates.

We are here to help! If you have any questions after reading these materials, please don’t hesitate to contact our program help desk at 1.866.258.1874 or EEPMSupport@oncor.com

2 PROGRAM OVERVIEW

The primary objective of the LIW SOP is to achieve cost-effective reductions in energy consumption during peak summer demand. Additionally, the program is designed to:

- Encourage private sector delivery of energy efficiency products and services.
- Achieve customer energy and cost savings.
- Significantly reduce barriers to participation by streamlining program procedures.
- Encourage participation by a wide range of service providers.

2.1 Program Options

The LIW SOP offers four options to serve residential customers:

- The **Reserve Option** offers service providers individually allocated incentive funding for energy efficiency projects at single-family residential dwellings, up to and including fourplex buildings.
- The **HVAC Option** offers individually Service Provider (SP) allocated incentive funding incentives for HVAC projects at single family residences.

- The **Multifamily Option** offers experienced service providers with incentives of up to $150,000 per project for energy efficiency upgrades at multifamily buildings with more than four units.
- The **Multifamily HVAC Option** allows service providers to propose custom incentives for HVAC projects in multifamily dwellings that will result in cost-effective energy savings and demand reduction. Incentives are awarded to cost-effective energy efficiency projects through a bidding process.
2.2 Customer Eligibility

Residential customers living in permanent single- and multi-family dwellings with active Oncor service are eligible to have energy efficiency measures installed at their homes as part of the LIW SOP. To be considered permanent, manufactured or mobile homes must have all mobility devices removed.

Eligible host customers are Oncor residential customers with annual household incomes at or below 200% of the federal poverty guidelines, and who have properly completed Oncor’s income eligibility certificate.

The U.S. Department of Health and Human Services (HHS) poverty guidelines are established separately for households of different sizes and are updated annually. The most current income limits should be used when qualifying a customer for the LIW SOP. Service providers are responsible to ensure they update their files to reflect the current income guidelines by downloading these guidelines from the PUCT or HHS website.

The target population for the LIW SOP includes:

- Customers with incomes too high to qualify for other state-funded weatherization programs, but that are still below 200% of federal poverty guidelines.
- Apartment complexes subsidized by the U.S. Department of Housing and Urban Development that provide housing for households at or below 80% of household medium income requirements, such as Section 8 and Public Housing Authorities (PHA).
- Households on long waiting lists for weatherization services.
- Affordable housing projects.
- Other target groups identified by service providers.

Target populations identified above whose incomes are verified by an appropriate social service agency or organization would require no additional income verification effort. Service providers interested in serving other target populations would be responsible for conducting verification activities.

**Host Customer Income Eligibility Verification**

The service provider is responsible for complying with the income verification procedures for individual customers and multifamily property owners. Oncor has approved four new income verification categories on the new forms that now required:

- Single-Family (four or less units or owner-occupied)
- Multifamily Apartment Complex (five or more units)
- Tenant Household Income Determination Works

Energy Efficiency Eligibility For Texas website  www.e4-tx.com

These forms outline the various methods in which participants may certify their eligibility. The procedure for verifying eligibility is based on self-certification. The service provider is responsible to present the form to the head of household or property manager who will fill out and sign the form. It is not the service provider’s responsibility to verify income information provided by the participants.

**Income Verification by Property Managers**

For multifamily projects where dwellings are individually metered by Oncor, the property manager may verify eligibility for units participating in the following listed programs:

- Public Housing Authority.
- Multifamily bond program (in properties with less than 25% of units at market rate).
- Project-based Section 8. (This does not apply to the Section 8 voucher program.)
- Home rental housing development.
- Housing Trust Fund.
• Low-Income Housing Tax Credit program (in properties with less than 25% of units at market rate).
• Affordable Housing Disposition Program.
• Farmers Home Administration Rural Rental Housing Loans (Section 515).

In addition, an entire property would also qualify if the property manager certifies 75% or more of the households meet the HHS poverty guidelines. To certify a property as eligible under this provision, the property manager must provide household size and income data for at least 75% of the units.

Qualifying Single - and Multi-Family Dwellings
Residential customers living in permanent single-family dwellings and qualified multifamily dwellings with active Oncor service are eligible to have energy efficiency measures installed at their homes as part of the LIW SOP. To be considered permanent, manufactured or mobile homes must have all mobility devices removed.

Single-Family Dwellings
Single-family dwellings are defined as detached single dwelling units, or attached dwelling units within a building containing four residential units or fewer (a fourplex).

Multifamily Dwellings
• Multifamily dwellings are defined as attached dwelling units within a building containing more than four residential units.
• A multifamily project site is defined as one or more multifamily dwelling units located on a single piece of property or adjacent pieces of property, under management or owned by a single party.
• Duplex and triplex units can be considered multifamily dwelling units if they are located on a property—or adjacent properties—and are under management or owned by a single party.

2.3 Energy Efficiency Measures

General Measure Requirements
Service providers may install any energy efficiency measure for which a deemed savings value (as noted in the Texas TRM, Version 10.0) has been provided lighting, space conditioning and building shell measures installed in qualified residential or multifamily buildings. In addition to some listed examples in this section, service providers may propose other energy efficiency measures, provided they meet the following requirements:

• Measures must be preapproved by Oncor.
• Measures must produce a measurable and verifiable electric demand reduction and/or reduce electricity consumption. (An individual energy efficiency measure that produces only demand or energy reduction may still be eligible for incentives if it is included within a project that delivers both energy and demand savings through other measures).
• Measures must produce savings through an increase in energy efficiency or a substitution of another energy source for electricity, provided the substitution results in overall lower energy costs, lower energy consumption and the installation of high efficiency equipment.
• Measures must surpass required state and federal minimum efficiency standards and meet or exceed installation and efficiency standards provided in the Texas TRM, Version 10.0.
• Measures must meet or exceed minimum equipment standards as provided in this program manual.
• Measures must comply with all requirements of PUCT Substantive Rule §25.181, including renewable energy measures.
• Eligible energy efficiency measures do not include repair or maintenance activities or behavioral changes.
• Any energy efficiency measure approved by PUCT and included in its residential standard offer program template is eligible for LIWSOP incentives.

As a general rule, energy efficiency measures involving plug loads (equipment or appliances plugged into standard electrical outlets) are not permitted. Oncor may waive this restriction if the service provider provides Oncor with reasonable assurance the energy and/or demand savings associated with such energy efficiency measures are likely to persist over a verified estimated useful life, and quantifiable energy and demand reductions meeting the requirements of Substantive Rule §25.181 can indeed be achieved through the proposed energy efficiency measure(s).

• Each customer site must meet the minimum standards for installation, as described in Section 10, “Installation Measure Guidelines.”

**Required Priority Measures**

One or more priority measures must be installed before any additional measures are accepted. Priority measures include:

• Insulation (ceiling, floor and walls).
  
  o Single-family dwelling insulation measures include exterior walls, ceiling, or floor with pier and beam.
  
  o Multifamily dwelling insulation measures include exterior walls, ceiling, or floor with pier and beam. If an insulation measure is adopted for a particular dwelling, that measure shall be applied throughout the entire building.

• Infiltration reduction (weather stripping and caulking, allowed only with approved training documentation). Blower door testing is required to determine the amount of reduction achieved in each unit.

**Examples of Eligible Measures**

The following are examples of measures eligible for program incentives:

**Cooling and Ventilation Measures**

• High-efficiency air-conditioning replacements.
• Ceiling, floor and wall insulation.
• High-efficiency heat pump replacements.

**Hot Water Measures**

• Energy- and water-efficient clothes washers.

**Renewable Energy Measures (Subject to Approval by PUCT)**

• Space conditioning (heating or cooling).

**Structural Measures**

• Insulation: ceiling, wall and floor.
• ENERGY STAR® windows.
• Infiltration control.

**Examples of Ineligible Measures**

The following measures are ineligible for program incentives:
- Measures that do not raise efficiency above current minimum state and federal standards.
- Cogeneration and self-generation projects, except for renewable demand side management technologies approved by PUCT.
- Load shifting/load management measures.
- Load reductions caused by vacancies.
- Measures that rely solely on changes in customer behavior and require no capital investment.
- Measures for which incentives were received under another Oncor program.
- Repair and maintenance activities.
- Energy-efficient gas measures when replacing nonelectric technologies.
- Measures that result in negative environmental or health effects.
- Water-saving devices such as showerheads and faucet aerators.
- Measures not installed properly or in accordance with program installation requirements.

**Additional Requirements**

**Existing Equipment Must Still Be in Place at the Time of Application**

If any of the baseline equipment at a project site has been removed or the proposed energy efficiency measures have already been installed prior to the execution of the LIW SOP addendum, the project, or the affected portions thereof, will be disallowed.

**Diagnostic Testing for Combustion Equipment or Air Filtration Measures**

Oncor requires service providers to perform both carbon monoxide (CO) and air infiltration testing to ensure the health and safety of host customers is not jeopardized by any air infiltration energy efficiency measure installed as part of the LIW SOP.

For residences with combustion equipment (e.g., natural gas or propane), service providers must not install any measure or measures that would result in ambient air CO levels exceeding 9 parts per million (ppm) at project completion. Service providers will be required to measure and record pre- and post-installation CO readings at each installation site.

For additional details on this requirement, including minimum ventilation rates and testing equipment specifications, please visit EEPM.

### 3 INCENTIVES

Oncor agrees to make an incentive payment to the service provider based upon the sum of the verified incentive savings derived from the project. The total incentive payment due to the service provider will be calculated by multiplying the verified kilowatt and kilowatt hour savings by the applicable incentive rate. Service providers will distribute incentives to the applicable host customer. Service providers are required to describe only the value of the incentive they determine to provide to the customer as part of their project price.

To estimate incentive amounts for your project, use the LIW SOP online incentive calculator, available to registered service providers, located in EEPM under “Tools – Online Help.”

#### 3.1 Program Incentive

The LIW SOP offers a combined incentive budget of for the 2023 program year. Oncor reserves the right to adjust the budget as it deems necessary, in its sole discretion.

Production Reports will be accepted until November 15, 2023, or until all LIW SOP funding for each program option has been exhausted. Check the status of available funding any time by logging in to oncoreepm.com with your registered service provider account.
Geographic Multiplier
In order to promote energy efficiency activities throughout the service area, there will be an additional 15% geographic payment adjustment for all measures completed at sites outside the five-county metroplex area. The metroplex area includes Dallas, Tarrant, Rockwall, Denton, Ellis, Johnson and Collin counties.

Reserve Option Incentives

Allotment Tiers
Service providers participating in the Reserve Project Option will receive a specified price per kilowatt and kilowatt hour of savings. This standard offer price is the same for all service providers in the Reserve Project Option. Terms are outlined in the LIW SOP addendum for each service provider.

Each approved service provider will be allotted one of three tier levels of reserved funding, with a reserve of either $5,000, $15,000 or $30,000 for the given production period. Tiers are allocated according to criteria that include:

- Prior year project volume.
- Prior year cumulative failure rate (CFR).
- Years of program participation.
- Post-inspection results.

New companies and returning service providers that experienced high failure rates or air infiltration testing issues may be offered a lower funding tier than the previous year, and will be required to schedule their first site visit with an inspector to observe the service provider’s work. If the service providers fail to prove their work knowledge, installation of measures or proper testing procedures during the on-site observation, they will not be allowed to participate in the program. If the service provider passes the on-site observation, the service provider will be subject to additional random post-testing. Any post-testing failures will result in the service provider’s immediate termination from the program.

If a service provider successfully expends their entire allotment, they may request additional funding within their tier. To be considered for additional funding, a service provider must have:

- A CFR of 5% or lower.
- No unresolved customer complaints.

Any additional funding will be required to be used by or before December 01, 2023.

Reserve Project Option Incentive Cap
In addition to program-wide incentive limits, total annual combined incentive payments through the Reserve Project Option are limited to the lesser of $500,000 or 9% of the overall LIW SOP budget, per service provider, inclusive of its affiliates.

Performance Milestones
The Reserve Project Option provides a specific allocation of funding for each service provider. Once a service provider has been approved to participate in this Option, they will be expected to meet monthly performance milestones as presented in the following table:
Funding Rules:

- Tier allocations are determined by historical PR volume.
- Each SP meeting their milestone will receive their tier allocation amount at the beginning of each month (if funding is available and SP’s CFR is less than 5%)
- Any SP not meeting their 90% milestone will lose their remaining funding and moved.
- If the SP wants to continue in the program they will be put in the next lower tier.
- If SP misses their milestone in the lowest level of allocation, they can continue participation in the program at the Program Manager’s discretion, as long as funding is available and their CFR is less than 5%.
- SPs can request additional funding (via mail) between milestones if funding is available and CFR is less than 5% once they have submitted 75% of their tier allocation.
- SPs exceeding their allocation for two consecutive months will be eligible to move to the next higher level of allocation if their CFR is less than 5% and funding is available.
- New SPs will start in lowest tier.
- When overall funding cannot support the monthly allocation, each SP will receive either 10%, 20% or 30% of the remaining funding based on their allocation level.
- All Program funding and allocations are subject to Program Manager discretion.

**Multifamily Option Incentives**

Service providers participating in the Multifamily Option will receive a specified price per kilowatt and kilowatt hour saved. This standard offer price is the same for all service providers in the Multifamily Option. Terms are outlined in the LIW SOP addendum for each service provider. Funding availability updates are available for registered service providers on EEPM.

**Multifamily Option Incentive Caps**

Funding reservation requests may not exceed $150,000 per project and a total annual reservation of the lesser of $300,000, or 20% of the total LIW SOP Multifamily Option budget, aggregated for the service provider and its affiliates. Incentive payments are also limited to $15,000 per installation agreement.
3.2 Incentive Limits

Service Provider Incentive Limits
So multiple service providers will have a chance to participate, no one service provider, inclusive of its affiliate(s), may receive more than the lesser of the project option cap amount or 20% of all available LIW SOP funds in any one year.

Per-Project Incentive Limits
The minimum project size in the Reserve Project Option is $500. The maximum Reserve Project Option incentive is $15,000. In the Multifamily Option, the minimum project size is $10,000 and the maximum is $150,000.

3.3 Incentive Payment

For approved measures with deemed savings, Oncor will pay the service provider the incentive payment within 45 days after the date Oncor approves the applicable production report.

Notwithstanding anything to the contrary, Oncor will only make incentive payments to the extent funding remains available in the applicable LIW SOP option budget at the time the associated production report is received by Oncor.

3.4 Adjustments to Incentives Following Post-Inspections

After on-site inspections are completed, projects will be evaluated on a measure-by-measure basis to calculate any failure(s) adjustment for energy and demand savings and incentives.

In the event the service provider disagrees with the payment adjustment, the service provider may request that all information be reviewed again after additional clarifying information is provided by the service provider. However, final payment adjustments will be in the sole discretion of Oncor.

4 PROGRAM OPTIONS

4.1 Reserve Option

The Reserve Project Option offers participating service providers a reserved annual allocation of incentive funding, which they may use to complete energy efficiency projects in single-family dwellings. Service providers commit to monthly production levels and may be able to increase their funding tier level with high performance.

Project Life Cycle

Service providers may submit project applications only after applying to the program and executing an LIW SOP addendum. See Section 5, “How to Participate,” for more information on joining the program as a service provider.

Reserve Project Option documentation generally consists of a post-installation production report and supplemental forms. It is the sole responsibility of the applicant to ensure Oncor receives all required project application materials by close of business on the applicable due date.
Production Period
During the production period, the service provider performs marketing, sales and installation activities, reporting progress on a regular basis to Oncor. Throughout the production period, the service provider may submit applications for Reserve Project Option incentives via oncoreepm.com. Work submitted for incentive payment must be completed only during the program production period.

Most Reserve Project Option projects do not require program preapproval prior to installation. However, preapproval is required for wall and floor insulation. Contact your program manager prior to beginning these projects.

Final Documentation for Reserve Project Options

Production Report
The primary reporting instrument during the production period is the production report, which serves as an invoice for LIW SOP incentives.

For each installation, the service provider will enter a project into EEPM, providing data including host customer information, location, account, meter and ESIID, as well as installed measures and associated energy and demand savings and incentive amounts.

Once all data has been entered and reviewed, click the “Menu” button to submit this data to Oncor in the form of an electronic production report generated from the data entered. Incentive amounts are calculated according to functions embedded in EEPM and may not be modified by service providers.

Only one entry will be allowed when entering customer information and measure data on the open production report in EEPM. The production report will be forwarded to the service provider once a project application has been approved.

Accompanying Documentation
Production report forms are accompanied by a customer agreement (CA) and income eligibility certificate.

These documents must be completed electronically on official Oncor production report forms. Upload the signed documents in EEPM under the “Attachments” tab for each submitted production report and include original copies with the printed production report.

The CA provides Oncor with permission to inspect installations, which may be required before incentive payments are approved. The CA must be signed by the head of the household or a person listed as the tenant who is older than 18 years, and a copy of the completed CA must be left with the host customer.

Production Report Submission Timelines
Reserve Project Option production reports may be provided to Oncor on a weekly basis. Only one production report may be submitted per calendar week, which begins at 12:01 a.m. Central Time (CT) each Monday morning and ends at 11:59 p.m. CT each Sunday night.

4.2 HVAC Option
The HVAC Option offers service providers a reserved annual allocation of incentive funding for qualified HVAC measures installed in single-family residential dwellings only. SPs providing measures other than HVAC equipment should consider participation in the Reserve Option.
**Project Life Cycle**

Service providers may submit project applications only after applying to the program and executing the LIW SOP addendum. See Section 5, "How to Participate," for more information on joining the program as a service provider.

Below is an outline of the HVAC Option application process from start to finish. Review this section carefully as they apply to all LIW SOP offer types. It is the sole responsibility of the applicant to ensure that Oncor receives all required project application materials by close of business on the applicable due date.

**Production Period**

During the project implementation period (the “production period”), the service provider performs marketing, sales and installation activities, reporting progress on a regular basis to Oncor. Throughout the production period, the service provider may submit applications for HVAC Option incentives via oncoreepm.com. Work submitted for incentive payment must be completed only during the program production period.

**Final Documentation for HVAC Option Projects**

HVAC Option documentation generally consists of a post-installation production report, electronically signed CA, AHRI certificate, Manual J (if needed depending on unit) and supplemental photos as required.

**Production Report**

The primary reporting instrument during the production period is the production report, which serves as an invoice for LIW SOP incentives. For each installation, the service provider will enter a project into EEPM, providing data, including host customer information, location, account, meter and ESIID, as well as installed measures and associated energy and demand savings and incentive amounts.

Once all data has been entered and reviewed, submit this data to Oncor in the form of an electronic production report, generated from the data entered. Incentive amounts are calculated according to functions embedded in EEPM and may not be modified by service providers. The production report will be forwarded to the service provider once a project application has been approved.

Only one entry will be allowed when entering customer information and measure data on the open production report in EEPM.

**Accompanying Documentation**

Production report forms are accompanied by the electronically signed CA, AHRI certificate, Manual J (if needed depending on unit) and supplemental photos as required. These documents must be completed electronically Oncor production report forms. Upload the signed CA and production report summary in EEPM under the “Attachments” tab for each submitted production report.

**Weekly Production Report Submission Timelines**

Production reports may be provided to Oncor on a weekly basis. Only one production report may be submitted per calendar week, which begins at 12:01 a.m. CT each Monday morning and ends at 11:59 p.m. CT each Sunday night.

**4.3 Multifamily Project Option**

The Multifamily Option offers incentives of up to $150,000 per project for energy efficiency measures implemented in multifamily dwellings. Incentives are reserved on a first-come, first-served basis subject to important per-service provider limitations.
**Multifamily Project Option Service Provider Requirements**

Only service providers who have successfully participated in the LIW SOP for a minimum of one year and with a CFR of less than 5% are eligible to participate in the Multifamily Option subject to change at Program Manager discretion.

**Project Life Cycle**

Service providers may submit project applications only after applying to the program and executing the LIW SOP addendum. See Section 5, “How to Participate,” for more information on joining the program as a service provider.

It is the sole responsibility of the applicant to ensure Oncor receives all required project application materials by close of business on the applicable due date. Service providers will be eligible to submit one Multifamily Option LIW SOP application at a time.

Below is an outline of the Multifamily Option application process from start to finish:

**Step 1 Pre-application Preparation**

Prior to beginning an incentive application, the service provider should take the following steps:

i. Validate with the property owner or manager that the property is eligible for the program.

ii. Validate that each property unit is individually metered and obtain ESIIDs or meter numbers for entry into the initial application (“IA”).

iii. Obtain a signed Customer Agreement (“CA”) from the property owner or manager to submit with the IA.

iv. Conduct pretests on each eligible floor plan to select and assign measures to each valid ESIID within the IA.

Once this initial project preparation is complete, service providers must submit their project as a single Multifamily Option LIW SOP application that includes all multifamily units at the site.

**Step 2 Initial Application**

The service provider must create an IA that includes all the ESIIDs within the project site.

Measures planned for the project should be entered for each ESIID in EEPM; the system will estimate the incentives and savings for the project, and the estimated funds will be reserved for the project. Energy efficiency measure installation and savings information should be provided by customer type (standard residential). **Estimated counts should be as accurate as possible in order to block the correct incentive.**

Each IA will be time-stamped and processed in the order submitted by the service provider. ESIIDs will be checked against the EEPM duplicate database to determine if the ESIID is eligible for the project. There may be cases where some ESIIDs are not eligible for the project within the same multifamily complex.

A service provider may not substitute project sites once its application has been submitted.

**Step 3 IA Pre-inspection**

Upon submission of the IA in EEPM, a pre-inspection will be performed on the project. Once the pre-inspection is completed, the program manager will contact the service provider to discuss the pre-inspection results. If the pre-inspection reflects any discrepancies from the original IA submitted, it will be rejected and sent back to the service provider to make adjustments. The service provider can resubmit the IA after making the appropriate adjustments.
Step 4 IN Open

After the project is approved by the program manager, the project will move into the IN open phase “production period.” The production period for the Multifamily Option is 45 days. Service providers must complete their projects within the 45-day production period or by November 15, 2023, whichever is earlier. Work submitted for incentive payment must be completed only during the program production period.

Only during IN Open phase the service provider may request to exclude any sites which were unable to conduct energy efficiency measure.

The service provider must enter all the final measure details of the post-installed measures into the IN Open.

A copy of a multifamily reservation of funds agreement will be generated in EEPM representing the project’s kilowatt and kilowatt hour savings and incentive amount after it has been updated based on the calculation of exclusions, if any. The reservation of funds agreement will need to be signed by the service provider and submitted along with a signed copy of the CA, both of which must then be sent to the program manager for Oncor approval. Once the reservation of funds agreement is approved, the program manager will approve the project in EEPM.

Installation Notice and Production Report

Following installation, the service provider final requested incentives will never exceed the preapproved, reserved amount. If final requested incentives are less than the reserved amount, no new reservation of funds agreement will be executed reflecting the revised incentive amount and remaining funds will be released to fund other projects or LIW SOPs. No new ESIIDs or measures can be added to the production report. **Should a service provider request to delete individual ESIIDs, they will not have the option to increase other measures in an effort to obtain the original reserved amount.**

Copies and Required Signatures

An electronically signed copy of the production report for the project, along with required supporting documentation, must be uploaded in EEPM as part of the submittal of the electronic version of the production report. In addition to the production report, the service provider should upload signed, completed CAs, income or tenant eligibility certificates, and CCs for each host customer. Among other things, the CA provides Oncor with permission to inspect installations, which may be required before incentive payments are approved. The CA must be signed by the apartment owner or authorized property manager, and a copy of the completed CA must be left with the customer.

Only complete production reports will be accepted and processed. Oncor considers a production report complete when all energy efficiency measures proposed in the approved project application have been installed, and all required support documentation, including the CA, have been submitted by the service provider and received by Oncor. All installations proposed in the approved project application for a site must be installed before submitting the production report.

Incomplete or inaccurate documentation may result in the entire production report being returned without processing to the service provider. Once the complete production report is received, the program manager will review and, if approved, conduct a post-inspection. After the inspector completes the final inspection, the results will be reviewed and approved by the program manager.

Submitting Additional Projects

A service provider can choose to submit another project once the previous project is into the IN Post-Inspection Completed phase, if a) funding is available, b) total of all projects is under the funding cap, and c) there is enough time to complete the project.
5 HOW TO PARTICIPATE

5.1 Service Provider Eligibility and Requirements

Eligibility by Program Option
All first-time service providers may apply to participate in the Reserve Project Option. Service providers must complete one successful year of participation in the LIW SOP and have a CFR of less than 5% prior to applying to participate in the Multifamily Option.

Oncor reserves the right to waive any eligibility requirements on a case-by-case basis in its sole discretion.

Registering as a Service Provider
To participate in the LIW SOP as a service provider, each contractor must:

- Register in EEPM.
- Enter into the umbrella contract.

For each option you select to participate in, you must also:

- Apply and be accepted to participate in selected LIW SOP project options.
- Execute the LIW SOP addendum with Oncor to participate in the program.

Join EEPM and Sign Umbrella Contract
First-time service providers must first create an account within EEPM to be eligible to participate in the LIW SOP. Service providers must complete the profile level information in EEPM and sign the umbrella contract required to register in EEPM. These activities enable service providers to access the program application but do not guarantee acceptance into the program or any individual options.

Request Association with the Low-Income Weatherization Standard Offer Program
Once registered within EEPM, the service provider will then need to contact the EEPM help desk at 866.258.1874 to associate with the LIW SOP. Once association has been completed, the service provider will log into EEPM to view the LIW SOP option.

Complete the Low-Income Weatherization Standard Offer Program Addendum
The service provider will then complete the program addendum in EEPM and upload the executed document under the “Attachments” tab. Oncor will not entertain proposed modifications to this document unless unique circumstances merit and require revision, at the sole discretion of Oncor.

Service providers that participated in previous years will not be required to execute an umbrella contract or program addendum unless otherwise noted.

Submit a Service Provider Program Application
Companies wanting to participate in the 2023 LIW SOP residential programs will be required to submit a program application in EEPM for each LIW SOP project option in which they intend to participate.

Program applications may be downloaded on oncoreepm.com under the “Resources” tab. The completed program application must be uploaded in EEPM under the “Vendor Documents” tab.
Additional Required Documentation
The following supplemental information should also be provided with your LIW SOP application:

Employee Information and Training
Employees, managers, owners or any individual who is associated with the application should be included in the “Employee” tab for your application in EEPM. Under each employee’s name, service providers should upload copies of up-to-date training certificates, licenses or rater certificates.

In addition, service providers must provide a photo of each employee to be uploaded in EEPM under the employee’s name within the “Employee” tab. No personal identification numbers such as a driver’s license or Social Security number should be sent or included.

Each customer-facing employee and subcontractor must complete an Energy Efficiency Customer Service Training module, available 24/7 in English and Spanish at https://www.oncoreepm.com/Training/Training.aspx. The customer service certificates they receive upon completion must be uploaded under each employee’s name on the “Employee” tab in the service provider’s profile.

Proof of Insurance
Service providers must provide a copy of their required insurance Association for Cooperative Operations Research and Development (ACORD) certificate to demonstrate they meet the required minimum insurance levels to participate in the program. All insurance ACORD certificates should be emailed to eepminsurance@oncor.com by the insurance agent.

Licensing and Observations for Air Filtration and HVAC Providers
Service providers that intend to perform air infiltration measures must also pass an on-site observation to prove their ability to perform high quality pre- and post-blower door tests. At Oncor’s discretion, the service provider may be asked to provide the model number, serial number and proof of the last calibration date for equipment including, but not limited to, the blower door, duct blaster and associated manometer.

Service Provider Application Revisions
Applications reviewed by an Oncor program manager may be revised by a service provider no more than ONE TIME for corrections or supplemental information. If an application is submitted in error and the Oncor program manager is notified prior to their review, it may be revised by the service provider without penalty.

Oncor will accept applications to participate until August 30, 2023.

Service Provider Selection Criteria
Oncor requires applicants to demonstrate their financial, technical and managerial qualifications as part of the application process to help ensure the proposed projects will be successful in delivering the estimated energy savings and the applicant is committed to fulfilling program objectives and competent to complete the proposed project.

Oncor will review each application using quantifiable criteria such as the previous program year CFR, production report volume, historical data, and any previous lockouts or customer complaints, with the goal of responding to each application within 10 business days of submission. Companies that fail to meet the criteria for high quality service providers will not be approved to participate in the 2023 LIW SOP.

New companies and returning service providers that have experienced high failure rates and/or post-testing issues will have the opportunity to apply for the Reserve Project Option. Only service providers with at least a year of successful LIW SOP option experience may apply for the Multifamily Option.
Oncor may, in its sole discretion, refuse to allow a service provider to participate in the LIW SOP for any reason, including prior program participation or participation in other programs.

**Service Provider Interview**

Interviews will be required for first time applicants, or at the request and discretion of Oncor. Service providers that meet the minimum application criteria will be contacted to schedule an interview. The interview will be used to verify application information and gain insight into the service provider’s company, business models, management and technical expertise. During the interview, service providers are expected to prepare a short presentation and address follow-up questions.

The presentation should include the following content:

- The company’s management structure.
- The business model used by the company.
- The marketing plan that will be used by the service provider.
- Long term company plans (5 and 10 years from now).

### 6 GENERAL PROJECT AND APPLICATION GUIDELINES

In addition to the application processes described within each project option section, the following general application guidelines apply to all LIW SOP projects.

#### 6.1 Customer Copies and Leave-Behind Materials

**Customer Agreements**

A copy of the completed CA must be left with each host customer. This can be accomplished by emailing a copy or printing a hard copy for these documents. The CA may not be altered except for incorporation within a service provider letterhead with preapproval.

**Customer Disclosure Notice Forms**

Customers must receive a hard copy of the customer disclosure notice form. A sample of this document is available on the “Resources” page in EEPM.

**Oncor Energy Efficiency Tips Brochure**

Customers must receive a hard copy of this brochure. Brochures can be ordered online in quantities of 200 for $28.50 per order.

#### 6.2 Application Copies

All copies of applications, including supplemental documentation as required by each project option, must be uploaded in EEPM as required.

It is the sole responsibility of the applicant to ensure Oncor receives all required project application materials by close of business on the applicable due date.

#### 6.3 Application Corrections

**Customer Account Errors**

If errors related to customer information within submitted paperwork are found by the program reviewer, the following process will be used for resolution:
The service provider will receive an email generated from EEPM listing the customer name(s) that have an error on the “Comment” tab.

The service provider will have three business days to contact the EEPM help desk to request the customer(s) be excluded.

Once the customer(s) are excluded, the service provider will receive an EEPM-generated email confirming the exclusion.

The service provider must electronically sign a new production report summary, and resubmit the production report in EEPM within three days.

If a service provider submits three separate production reports containing errors, they will be subject to a one-month lockout period as outlined in the three-strike policy included in Section 9, “Quality Control and Disciplinary Procedures.”

**Production Report Changes**

Should changes be required within a submitted production report, the service provider must contact the EEPM help desk via email or phone to submit a ticket for the requested changes. Service providers will be required to provide the reason(s) for the request.

### 6.4 Waitlisted Projects

Projects will be waitlisted once all program funding has been reserved. As additional funding becomes available, the funds will be reserved for projects on the waiting list in the order they are submitted. Should a project be waitlisted, the service provider should not proceed with the project until notified by Oncor that funding has become available, all required paperwork has been completed and the project has passed pre-inspection if necessary.

### 6.5 Subcontracting Policies

Service providers may utilize subcontractors for Reserve, HVAC and Multifamily Options. In addition, service providers participating in any LIW Option may subcontract to a Multifamily HVAC Option service provider.

**NO ONCOR EMPLOYEE INVOLVEMENT WITH SERVICE PROVIDER**

Service Providers must report to the Program Manager any known relationships it has with Oncor employees. No Oncor employee or family member of an Oncor employee may hold 5% or more of the voting ownership interests, either direct or indirect, in any Service Provider’s company that participates in the Program. In addition, no Service Provider may employ as an executive officer or other policy-making employee, or retain as an independent contractor or consultant, any Oncor employee involved in decision making with respect to the Program.

### 7 PROJECT APPROVAL

#### 7.1 Project Evaluation Criteria

Oncor may reject a project application for any reason in its sole discretion and is not required to supply any explanation for such rejection. Reasons for rejection may include, but are not limited to, the following:

- The project application is received after the budget for that option has been fully committed.
• The applicant’s proposed production period cannot reasonably be expected to be completed by October 31, 2023.
• Required submittals are not received by deadlines stated in this program manual.
• The applicant fails to meet LIW SOP eligibility requirements.
• The applicant is found to have made material misrepresentations in the project application or on submitted documentation.
• The applicant fails to comply with applicable federal, state, and local laws and regulations.
• Oncor determines, based on information concerning the applicant or its affiliate(s), including any prior performance of the applicant or its affiliate(s) concerning energy efficiency programs, the applicant is unlikely to be able to successfully participate in the LIW SOP.
• Changes in laws or regulations occur that directly affect LIW SOP.
• Prior participation in the LIW SOP or the Home Energy Efficiency Standard Offer Program resulted in a CFR of greater than 5%.
• Oncor, in its sole judgment, determines the applicant is incapable of fulfilling the terms and conditions of the LIW SOP, the LIW SOP addendum or the umbrella contract.

Oncor may request clarification of, or additional information about, any item submitted as part of the project application. Applicants must respond to such requests within the time period specified by Oncor. If the clarification or additional information provided is not sufficiently responsive, Oncor may, in its sole discretion, request additional information or discontinue its evaluation of the submittal. Any applicant submitting an unsuccessful application may reapply for project funding by submitting another application. However, the applicant will lose its initial position in the order of submittal for budget reservation purposes, if applicable.

COMPLIANCE WITH PROGRAM REQUIREMENTS

SERVICE PROVIDER REQUIREMENTS

By executing the LIW SOP Program Addendum, the Service Provider warrants and represents that it is aware of and complies with all terms and conditions of the Contract Documents. The Service Provider also warrants and represents that it meets or exceeds all of the following qualifications required by Oncor for participation in the LIW SOP:

• Possesses and can demonstrate experience in implementing similar Projects.
• Can produce evidence of possession of all applicable licenses required under state law and local building codes.
• Can produce evidence of financial strength and capability through annual and quarterly Securities and Exchange Commission filings or financial statements.
• Can produce evidence of possession of all building permits required by governing jurisdictions.
• Can produce the proof of insurance required as noted in the Appendix B.

PROJECT REQUIREMENTS

Service Provider warrants and represents that the Project meets all applicable federal, state, and local laws and regulatory requirements, including:

• The Project will result in energy savings and peak demand savings and a reduction in energy costs for the end-use customer.
• The Project will result in consistent and predictable energy savings and peak demand savings over the expected Measure life.
• The Project Application discloses all potential adverse environmental or health effects associated with the Measures to be installed, if any.
• The Project includes appropriate and adequate measurement, verification, and reporting procedures.

• Service Provider will comply with the customer protection requirements in PUCT Substantive Rule §25.181(u) while implementing the Project.

• Measures installed pursuant to the Project would not be installed even in the absence of the Project.

• The Project does not result in negative environmental or health effects, including effects that result from improper disposal of equipment and materials.

• The Project does not involve the installation of self-generation or cogeneration equipment, but may involve renewable Demand Side Management technologies.

7.2 Inspections

Scheduling Inspections

During the review process, Oncor or its designated agent will perform inspections of a random sample of a statistically representative number of project sites to determine if energy efficiency measures have been installed properly and perform their intended functions. Should Oncor not be able to contact a host customer after three repeated attempts, the service provider will be contacted and required to schedule the inspection at a time convenient to Oncor and the host customer.

The service provider may be required to be on-site during the inspection. Service providers must make every effort to obtain a working phone number for each site. Should a contact number not be available, then the service provider must enter its number as the host customer’s number. The service provider will be required to schedule the inspection appointment for a time convenient for the host customer and Oncor.

Inspection Criteria

All energy efficiency measures installed in the LIW SOP must conform to or exceed the standards listed in the Texas TRM, Version 10.0. If energy efficiency measures installed do not meet these standards, they will not be eligible for incentives. Service providers will not be allowed to correct installation of energy efficiency measures to receive incentive payments unless specifically allowed to do so by Oncor, in its sole discretion. In the Multifamily Option, Oncor will not consider for incentive payment any energy efficiency measures not specifically proposed in the project application.

Oncor reserves the right to reject any installed energy efficiency measure for any of the following reasons:

• Poor workmanship.
• Service provider or host customer modification to the installed measure.
• Lack of Underwriters Laboratories listing.
• Measure not operating correctly.
• Measure or its installation poses a safety hazard.
• Measure or its installation poses an environmental hazard.
• Non-permissible access for verification for installed measures.
• Measure does not comply with local or state building codes or standards listed in the Texas TRM.
• Measure does not comply with National Electric Code or National Electric Safety Code.
• Failure to comply with Oncor LIW SOP requirements or any applicable laws or regulations.
Air infiltration measures are also subject to testing by Oncor. For duct measures, should Oncor's test reveal the air flow, measured in cubic feet per minute (CFM), is not within 10% of the post-tested CFM, the measure is subject to failure.

8 IMPORTANT PROGRAM DATES AND DEADLINES

Service Provider Applications (Dates are subject to change at Program Manager discretion)

Service providers may apply to participate in LIW SOP until July 15, 2023.

Project Submission Dates

 Reserve Program Option: EEPM will accept production reports for projects from February 06, 2023, at 10 a.m. CT until November 15, 2023, at 12 noon or whenever funding is exhausted.

 Multifamily Project Option: EEPM will accept IAs from February 01, 2023, at 10 a.m. CT until October 31, 2023, at 5 p.m. CT or whenever funding is exhausted. Final production reports must be electronically submitted by November 01, 2023. Oncor will not make any incentive payments for any deemed savings not included in a production report electronically submitted on or before November 01, 2023.

9 QUALITY CONTROL AND DISCIPLINARY PROCEDURES

Service provider performance is evaluated and monitored for quality assurance throughout the course of the program.

9.1 Cumulative Failure Rate

A service provider’s CFR is monitored to maintain high program quality standards. Each service provider’s CFR is updated after every project they complete. The CFR is calculated according to the following formula:

\[
CFR = \left( \frac{\text{Total Adjusted Incentive Dollars for Failed Inspected Measures}}{\text{Total Requested Incentive Dollars for Inspected Measures}} \right) \times 100
\]

Example:

<table>
<thead>
<tr>
<th>Total Adjusted Incentive Dollars for Failed Inspected Measures</th>
<th>$500</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Requested Incentive Dollars for Inspected Measures</td>
<td>$10,000</td>
</tr>
<tr>
<td>($500 ÷ $10,000) X 100</td>
<td>CFR = 5%</td>
</tr>
</tbody>
</table>

9.2 Service Provider Lockouts

If a service provider’s inspection CFR exceeds 5%, the service provider will not be subject to a lockout and, as such, not allowed to submit any additional projects. Oncor may also terminate the LIW SOP addendum and any other addendums in which the service provider participates. Please refer to Section 9, “Quality Control and Disciplinary Procedures,” for a list of potential actions related to failure rates.
### 9.3 Termination of Service Provider Agreements

Oncor may terminate any or all LIW SOP addenda or umbrella contracts in whole or in part, at any time, at its sole discretion, by providing written notice of termination to the service provider. The notice of termination will specify the effective date of any termination, and that the LIW SOP addendum or umbrella contract is terminated in its entirety. Termination may result from unacceptable performance, either during current or past LIW SOPs. Please review the LIW SOP addendum and umbrella contract for additional details.

<table>
<thead>
<tr>
<th>EXAMPLES OF FAILURE</th>
<th>ACTION TAKEN WITH SERVICE PROVIDER</th>
<th>TIME FRAME OF LOCKOUT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>STRIKE 1: CUSTOMER NOT IMPACTED</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Reporting errors, including paperwork errors and/or EEPM system input errors.
- CFR reaches 5% or greater.
- Not meeting inspection requests and/or schedule times.
- Use of employees/workers not disclosed on the service provider profile employee tab.
- Failures will be classified as “Quality” or “Data entry” failures.

- Discuss appropriate actions that SP should take to eliminate these failures.
- First time offenders of a “Quality” failure(s) are given one chance to continue working and the next Production Report (PR) should have a 0% failure rate.
- Offenders of a “Data entry” failure(s) will be given the opportunity to continue working until three (3) “Data entry” failures occur.
- Discuss with SP workable solution to complete inspection requirement

- If next PR has any “Quality” failures SP is placed in a one-month lockout and SP must present action plan to PM outlining steps taken to stop failures.
- After completing the one-month lockout period the SP will be unlocked and can resume work until any future PR contains a failure. SP is then placed in lockout for the remainder of the Program year. This is subject to available funding in either Program.
- Offenders of a “Data entry” failure(s) will be given the opportunity to continue working until three (3) “Data entry” failures occur.

<table>
<thead>
<tr>
<th>EXAMPLES OF FAILURE</th>
<th>ACTION TAKEN WITH SERVICE PROVIDER</th>
<th>TIME FRAME OF LOCKOUT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>STRIKE 2: CUSTOMER IMPACTED</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Installation/performance/work related/inspection failures and customer complaints.
- Unauthorized use of Oncor if any service provider created marketing materials. Service provider uses Oncor website to submit/report manufactured ratings/comments for themselves and/or other service providers.
- Use of marketing companies without disclosure as subcontractor.

- Meet/counsel with service provider to explain failures and possible causes.
- Discuss appropriate actions service provider should take to eliminate these failures.
- Impose a two-month lockout period to allow the service provider time to address the areas that have caused the failures and have service provider develop a plan to present after the lockout period.

- Service provider is locked out for a minimum of two months. No work can be done or production reports accepted during the two-month lockout period. After two-month lockout period is completed, the service provider can resume work until any future production report contains a failure. This is subject to available funding in either program.
### Examples of Failure

<table>
<thead>
<tr>
<th>Examples of Failure</th>
<th>Action Taken With Service Provider</th>
<th>Time Frame of Lockout</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Note: If service provider repeats and/or continues offenses that have been documented from prior years in either program, then recommendation will be made for service provider to move to Strike 3. (Examples include pre- and post-testing and other required program standards.)</td>
<td>- Meet with service provider after two-month period to review the action plan from the service provider. If plan is acceptable, service provider is unlocked. - Should failures continue after service provider is unlocked the first time, program manager will notify service provider they will be placed back into lockout for the remainder of the program year.</td>
<td>- Should failures continue after service provider is unlocked the first time, program manager will notify service provider they will be placed back into lockout for the remainder of the program year.</td>
</tr>
</tbody>
</table>

### STRIKE 3: Inexplicable Offenses

<table>
<thead>
<tr>
<th>Examples of Failure</th>
<th>Action Taken With Service Provider</th>
<th>Time Frame of Lockout</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Fraud-related failures. - Creating and/or exposing a customer(s) to an unsafe condition(s). - Noncompliance to any prior corrective actions.</td>
<td>- Meet/counsel with service provider to explain failures and explore the reasons the offense(s) may have occurred. - Describe offenses for management and obtain approval to proceed with termination. - Create termination letter and have legal review and approve.</td>
<td>- Service provider is locked out immediately and terminated in system once management and legal approve. - Termination letter is sent to service provider and umbrella contract is canceled. - Service provider should be terminated in EEPM and not allowed to participate in any current and/or future Oncor energy efficiency programs.</td>
</tr>
</tbody>
</table>

Oncor may terminate based on: 1) quality of work; 2) submission of false or misleading information; 3) unapproved changes to the service provider staff; 4) negative customer feedback; 5) unethical conduct; 6) changes in service provider standings with other utilities or agencies; 7) falsification of air flow rate pre-testing or post-testing; or 8) other issues identified by Oncor.

<table>
<thead>
<tr>
<th>Measure Description</th>
<th>Strike 1 Examples</th>
<th>Strike 2 Examples</th>
<th>Strike 3 Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Air Conditioner</td>
<td>- Wrong serial and/or model numbers reported. - Wrong size of equipment reported.</td>
<td>- Equipment reported installed is different from actual installed equipment. - Valid customer complaint.</td>
<td>- Multiple and repeated offenses occur. - Service provider turns in house(s) with no installed equipment. - Service provider impacted the customer and/or the program in an egregious manner.</td>
</tr>
<tr>
<td>Central Heat Pump</td>
<td>- Wrong serial and/or model numbers reported. - Wrong size of equipment reported.</td>
<td>- Equipment reported installed is different from actual installed equipment.</td>
<td>- Multiple and repeated offenses occur.</td>
</tr>
<tr>
<td>MEASURE DESCRIPTION</td>
<td>STRIKE 1 EXAMPLES</td>
<td>STRIKE 2 EXAMPLES</td>
<td>STRIKE 3 EXAMPLES</td>
</tr>
<tr>
<td>---------------------</td>
<td>-------------------</td>
<td>-------------------</td>
<td>-------------------</td>
</tr>
</tbody>
</table>
| Ground Source Heat Pump | • Wrong serial and/or model numbers reported.  
• Wrong size of equipment reported.  
• Pre- and/or post-insulation levels are different from what is reported on paperwork but actual install is OK. | • Equipment reported installed is different from actual installed equipment.  
• Valid customer complaint.  
• Square footage is reported wrong more than one time. | • Service provider turns in house(s) with no installed equipment.  
• Service provider impacted the customer and/or the program in an egregious manner.  
• Multiple and repeated offenses occur.  
• Service provider turns in house(s) with no installed equipment.  
• Service provider impacted the customer and/or the program in an egregious manner. |
| Ceiling Insulation | • Wrong heating system type reported.  
• Wrong square footage reported.  
• Pre- and/or post-insulation levels are different from what is reported on paperwork but actual install is OK. | • Sloppy and/or incomplete work.  
• Pre- and/or post-insulation levels are different from what is reported.  
• Valid customer complaint.  
• Square footage is reported wrong more than one time. | • Multiple and repeated offenses occur.  
• Service provider turns in house(s) that have not had insulation installed.  
• Service provider impacted the customer and/or the program in an egregious manner. |
| Wall Insulation | • No pre-inspection was conducted.  
• Wrong heating system type reported.  
• Wrong square footage reported.  
• Pre- and/or post-insulation levels are different from what is reported on paperwork but actual install is OK. | • No pre-inspection was conducted multiple times.  
• Pre- and/or post-insulation levels are different from what is reported.  
• Sloppy and/or incomplete work.  
• Valid customer complaint.  
• Square footage is reported wrong more than one time. | • Multiple and repeated offenses occur.  
• Service provider turns in house(s) that have not had insulation installed.  
• Service provider impacted the customer and/or the program in an egregious manner. |
| Floor Insulation | • No pre-inspection was conducted.  
• Wrong heating system type reported.  
• Wrong square footage reported.  
• Pre- and/or post-insulation levels are different from what is reported on paperwork but actual install is OK. | • No pre-inspection was conducted multiple times.  
• Pre- and/or post-insulation levels are different from what is reported.  
• Sloppy and/or incomplete work.  
• Valid customer complaint.  
• Square footage is reported wrong more than one time. | • Multiple and repeated offenses occur.  
• Service provider turns in house(s) that have not had insulation installed.  
• Service provider impacted the customer and/or the program in an egregious manner. |
<table>
<thead>
<tr>
<th>MEASURE DESCRIPTION</th>
<th>STRIKE 1 EXAMPLES</th>
<th>STRIKE 2 EXAMPLES</th>
<th>STRIKE 3 EXAMPLES</th>
</tr>
</thead>
</table>
| Air Infiltration    | - Wrong heating system type reported.  
- Wrong square footage reported.  
- Number of systems reported wrong.                                                                                                                                                                                                                                               | - Work reported not completed (weather stripping, caulking, gaskets, etc.).  
- Sloppy and/or incomplete work.  
- Valid customer complaint.  
- Program installation requirements are not met.  
- Minimum ventilation rate is compromised.  
- Post testing failures.  
- Multiple and repeated offenses occur.  
- No pre- or post-testing done.  
- Oncor inspection shows greater than 10% difference in posttest reported numbers.  
- Service provider turns in houses that have not been treated.  
- Service provider impacted the customer and/or the program in an egregious manner.                                                                                                                                 |
| ENERGY STAR® Windows | - Wrong square footage and/or incorrect number reported.                                                                                                                                                                                                                                                                                           | - Windows reported installed are different from actual windows installed.  
- Windows installed are not ENERGY STAR-rated.  
- Reported square footage is different from actual square footage.  
- Valid customer complaint.                                                                                                                                                                                                     | - Multiple and repeated offenses occur.  
- Service provider turns in houses that have not had windows installed.  
- Service provider impacted the customer and/or the program in an egregious manner.                                                                                                                                 |
| Water Heater Jackets | - Wrong number of jackets reported.                                                                                                                                                                                                                                                                                                               | - Nonapproved or substandard jacket is installed.  
- Number reported installed is different from actual number installed.  
- Valid customer complaint.                                                                                                                                                                                                       | - Multiple and repeated offenses occur.  
- Service provider turns in house(s) that have not had jackets installed.  
- Service provider impacted the customer and/or the program in an egregious manner.                                                                                                                                 |
| Water Heater Pipe Insulation | - Wrong number of water heater pipe insulation reported.                                                                                                                                                                                                                                                                                          | - Nonapproved or substandard materials are installed.  
- Number reported installed is different from actual number installed.  
- Valid customer complaint.                                                                                                                                                                                                         | - Multiple and repeated offenses occur.  
- Service provider turns in house(s) that have not had water heater pipe insulation installed.  
- Service provider impacted the customer and/or the program in an egregious manner.                                                                                                                                 |
| ENERGY STAR® Appliances | - Wrong model number and/or serial number reported.                                                                                                                                                                                                                                                                                                | - Appliances installed are not ENERGY STAR-rated.  
- Reported appliance is different from actual installed appliance.  
- Valid customer complaint.                                                                                                                                                                                                           | - Multiple and repeated offenses occur.  
- Service provider turns in house(s) that have not had ENERGY STAR appliances installed.  
- Service provider impacted the customer and/or the program in an egregious manner.                                                                                                                                 |
<table>
<thead>
<tr>
<th>MEASURE DESCRIPTION</th>
<th>STRIKE 1 EXAMPLES</th>
<th>STRIKE 2 EXAMPLES</th>
<th>STRIKE 3 EXAMPLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerators (Low-Income Weatherization [LIW] ONLY)</td>
<td>• Wrong type and/or numbers of aerators reported and/or incomplete information.</td>
<td>• Aerators installed are different from the one(s) reported. • Reported aerators do not meet the program equipment and/or installation standards. • Failure to send in replaced aerator(s). • Not completed with a priority one measure. • Valid customer complaint.</td>
<td>• Multiple and repeated offenses occur. • Service provider turns in house(s) that have not had aerators (LIW ONLY) installed. • Service provider impacted the customer and/or the program in an egregious manner.</td>
</tr>
<tr>
<td>Showerheads (LIW ONLY)</td>
<td>• Wrong type and/or numbers of showerhead(s) reported and/or incomplete information.</td>
<td>• Showerhead(s) installed are different or not in the correct locations from the one(s) reported. • Reported showerhead(s) does not meet the program equipment and/or installation standards. • Failure to send in replaced showerhead(s). • Not completed with a priority one measure. • Valid customer complaint.</td>
<td>• Multiple and repeated offenses occur. • Service provider turns in house(s) that have not had showerheads (LIW ONLY) installed. • Service provider impacted the customer and/or the program in an egregious manner.</td>
</tr>
<tr>
<td>CO Procedures</td>
<td>• Failure to report CO readings on paperwork.</td>
<td>• Failure to report gas equipment and CO readings.</td>
<td>Reporting higher than allowed CO readings and installing energy efficiency measures that decrease the minimum ventilation rate.</td>
</tr>
</tbody>
</table>

In the event Oncor terminates an umbrella contract and program addendum, the service provider will finish any project already commenced that cannot be discontinued without breaching the CA. Oncor will have no obligations with respect to any contractual obligations entered into between the host customer and service provider after the service provider’s receipt of Oncor’s notice of termination.

In the event Oncor terminates an umbrella contract and program addendum prior to completion of a project, a customer’s only liability will be to pay the service provider the unpaid balance due for that portion of the project commenced and cannot be discontinued without breaching the CA; notwithstanding the foregoing, however, the customer shall not be required to pay the service provider for any portion of a project the customer determines was not completed in compliance with the terms and conditions set forth in the manual.

9.4 Actions for Current Year Quality Issues

The LIW SOP employs a three-strike system for service providers with quality issues or a CFR that surpasses 5%.
The following outline explains the potential actions Oncor generally takes once a service provider reaches a CFR of 5% or fails to follow program requirements. Oncor does not by virtue of this outline waive any of its rights under any of its agreements with any service provider including, but not limited to, its right to terminate for any or no reason.

The three-strike system phases, and examples of failures by measure type, are outlined in the tables that follow:

<table>
<thead>
<tr>
<th>APPLICANT ISSUE</th>
<th>PROGRAM ACTION</th>
<th>COMMENTS</th>
</tr>
</thead>
</table>
| CFR is greater than 10% or insurance was discontinued. | Lockout for the current program year. | Service provider shall develop a plan of action to address failures/issues, to be presented when applying to participate during the following program year. Potential modifications may be considered based on the cause of the past failures:  
- CFR due to paperwork: one-month lockout period.  
- CFR due to inferior work: three-month lockout period. |
| CFR is greater than 5% but less than 10%. | One-month lockout period following approval date. | Lockout period is subject to adjustment, based on the cause of the CFR. |
| Issues identified during internal compliance audit, including non-retention of paperwork or lack of employee background checks. | Three-month lockout period. | Lockout period will vary based on issue discovered during audit. |
| Service provider had a Strike 1 status at the end of the prior program year. | One-month lockout period following approval date. | Lockout period is subject to adjustment, based on the cause of the CFR:  
- Five paperwork errors will result in service provider lockout.  
- Lockout will not be waived for failures due to work quality.  
- Lockout will not be waived in the case of other issues outlined in the Strike 3 policy. |
| Service provider had a Strike 2 status at the end of the prior program year. | Two-month lockout period following approval date. | Lockout period is subject to adjustment, based on the cause of the CFR:  
- Five paperwork errors will result in service provider lockout.  
- Lockout will not be waived for failures due to work quality.  
- Lockout will not be waived in the case of other issues outlined in the Strike 3 policy. |
Three-Strike System Phases

Strike Examples by Measure Type
Definitions and Acronyms:

<table>
<thead>
<tr>
<th>Definition</th>
<th>Acronym(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Egregious</td>
<td>Conspicuously and outrageously bad or reprehensible</td>
</tr>
</tbody>
</table>
| Failure rate     | Cumulative lockout failure rate calculation is as stated below: \[
|                  | \frac{\text{Total Adjusted Incentive Dollars for Failed Inspected Measures}}{\text{Total Requested Incentive Dollars for Inspected Measures}} \times 100 \] |
| Inexpiable       | Incapable of being atoned for   |
| DWH              | Domestic water heating          |
| EEPM             | Energy efficiency program management |
| LIW              | Home energy efficiency          |
| LIW              | Low-income weatherization       |
| PM               | Program manager                 |
| PR               | Production report               |
| SP               | Service provider                |

9.5 Impact of Prior-Year Performance

Performance during prior years will have an impact on the management of service providers. The table below provides examples of the actions that can be taken by the program manager if a service provider with past performance issues applies to participate in a residential energy efficiency program. All exceptions will be reviewed at the discretion of Oncor.

Impacts of Past Performance

<table>
<thead>
<tr>
<th>Applicant Issue</th>
<th>Program Action</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFR is greater than 10% or insurance was discontinued</td>
<td>Lockout for the current program year</td>
<td>Service provider shall develop a plan of action to address failures/issues, to be presented when applying to participate during the following program year.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Potential modifications may be considered based on the cause of the past failures:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• CFR due to paperwork: one-month lockout period.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• CFR due to inferior work: three-month lockout period.</td>
</tr>
<tr>
<td>CFR is greater than 5% but less than 10%</td>
<td>One-month lockout period following approval date</td>
<td>Lockout period is subject to adjustment, based on the cause of the CFR.</td>
</tr>
</tbody>
</table>
Issues identified during internal compliance audit, including no retention of paperwork or lack of employee background checks

<table>
<thead>
<tr>
<th>Issue Description</th>
<th>Lockout Period</th>
<th>Notes</th>
</tr>
</thead>
</table>
| Service provider had a “Strike 1” status at the end of the prior program year | One-month lockout period following approval date | Lockout period is subject to adjustment, based on the cause of the CFR:  
- Five paperwork errors will result in service provider lockout.  
- Lockout will not be waived for failures due to work quality.  
- Lockout will not be waived in the case of other issues outlined in the Strike 3 Policy. |
| Service provider had a “Strike 2” status at the end of the prior program year | Two-month lockout period following approval date | Lockout period is subject to adjustment, based on the cause of the CFR:  
- Five paperwork errors will result in service provider lockout.  
- Lockout will not be waived for failures due to work quality.  
- Lockout will not be waived in the case of other issues outlined in the Strike 3 Policy. |

9.6 Audit and Records

According to Texas Business and Commerce Code §35.48, businesses that dispose of records containing personal information must destroy or modify the record through shredding of other means that renders the information unreadable.

Personal information consists of the customer’s name and any one of the following:

- Customer identification number (premise number, meter number, and/or ESIID)
- Social Security number (or government identification number)
- Driver’s license number
- Address (physical or mailing)

9.7 PERMITS, LICENSES, AND COMPLIANCE WITH LAW

- Service Provider represents and warrants that prior to beginning installation of any Measures, it will obtain, at its own cost and expense, all permits, licenses, and other authorizations from governmental authorities in its business name as then may be required to install, construct, operate, and maintain the Measures and to perform its obligations hereunder. During the term hereof, Service Provider will obtain all such additional governmental permits, licenses, and other authorizations when required with respect to any of the Measures. If requested by Oncor, Service Provider shall furnish to Oncor copies of each such permit, license, or other approval promptly following receipt thereof. Service Provider shall maintain in full force and effect all such governmental permits, licenses, and other authorizations as may be necessary for the construction, operation, or maintenance of the Measures in accordance herewith.
• Service Provider shall be responsible for all royalties, fees, or claims for any licensed, copyrighted, or similarly protected intellectual property, device, process, or procedure used, installed, or provided by it. Service Provider shall defend any suit that may be brought against Oncor and shall hold Oncor harmless from any liability, damages, and costs, including without limitation attorney’s fees, incurred by Oncor arising from or related to infringement or alleged infringement of any such intellectual property used by Service Provider in the implementation of the Project.

• All Work performed by Service Provider in connection with the implementation of the Project and all Measures installed or maintained by Service Provider shall comply with all applicable laws, statutes, ordinances, rules, regulations, and decrees of any governmental or administrative body having jurisdiction over Oncor, Service Provider, the LIWSOP, or any portion of the Project.

• Prior to entering any Project Site or beginning the installation of any Measures, Service Provider will obtain, at its own cost and expense, criminal history background check(s) of its employees, vendors or agents if required to do so by Sections 145.001-145.003 of the Texas Civil Practice and Remedies Code. Background checks are acceptable only when performed through the Texas Department of Public Safety (TDPS) program or an approved vendor of the TDPS. Service Provider acknowledges and agrees that its participation in the Program and execution of the LIWSOP Program Addendum serves as Oncor’s request in accordance with Section 145.004 of the Texas Civil Practice and Remedies Code that Service Provider obtain criminal history background checks of its employees, vendors, and agents. Service Provider also acknowledges that it received this request prior to sending any persons to Project Sites to install Measures.

INDEPENDENT CONTRACTOR

• Service Provider will act as and be deemed to be an independent contractor. Service Provider will not act as, nor be deemed to be, an agent or employee of Oncor. Service Provider will have the sole right to control and directly supervise the method, manner, and details of the Project, providing it are in accordance with the Contract Documents.

9.8 Co-Branding Guidelines

• Service Provider will act as and be deemed to be an independent contractor. Service Provider will not act as, nor be deemed to be, an agent or employee of Oncor. Service Provider will have the sole right to control and directly supervise the method, manner, and details of the Project, providing it is in accordance with the Contract Documents.

• Service Providers may not represent themselves as Oncor employees in the field, nor should they communicate in any way that they work on behalf of Oncor. Oncor does not endorse any Service Provider; therefore, written or verbal communication implying an endorsement is prohibited. Any reference to Oncor programs by Service Providers should clearly state that the Service Provider is a participant in Oncor’s programs. Service Providers participating in programs will be listed on takealoadofftexas.com.

• Following is sample language Service Providers can use when communicating their relationship with Oncor.

George’s Energy Solutions is participating in Oncor’s Home Energy Efficiency Standard Offer Program. Through this program, we are able to install energy efficiency upgrades to help our customers reduce energy consumption.
10 INSTALLATION MEASURE GUIDELINES

Air Infiltration - Blower Door Testing

Participating service providers in Oncor’s LIW SOP are subject, and may be required, to provide times and dates to observe pre- and/or post-diagnostic tests with a blower door or duct blaster to verify accuracy under normal living conditions.

- Homes treated for air infiltration reduction must be centrally cooled with electric refrigerated air conditioning to claim cooling savings; to claim heating savings, homes must be centrally heated with either a furnace (gas or electric resistance) or heat pump.
- Oncor will require the use of the iTEC RESNET app to report each air infiltration measure. This applies only to single-family dwellings. The results report from the app will need to be uploaded for each air infiltration submitted on a production report in EEPM.
- The iTEC RESNET app can be downloaded to your electronic device from one of the following URL addresses:
  - http://download.cnet.com/iTEC-RESNET/3000-2064_4-75691606.html
- The instructional video for the app can be seen by visiting: http://www.youtube.com/watch?v=kCoLBcy4H6M
- Infiltration measures should not be performed when there is an external door, broken window or extensive envelope damage such as large holes in the ceiling, floors or walls. These items must be repaired properly prior to performing testing or installation of any infiltration measures. In any event where the service provider has any doubt regarding holes in a home’s envelope, it should not perform the measures.
- The service provider should note any calculation or testing adjustments for any pre- and post-diagnostic tests.

Door Weather Stripping

- Installation must meet the following guidelines:
- All sides of the door must be treated.
- No outside light should be visible around the treated perimeter of the door when viewed from inside the house.
- When completed, the customer should be able to close and lock the door normally with little to no additional effort.

Window Weather Stripping

Installation must meet the following guidelines:

- Identify the location and number of windows treated in the home.
- Window weather stripping should only be applied to a clean, prepared surface and must be installed only where its effectiveness will last for a minimum of 10 years.

Oncor requires service providers to perform CO and air infiltration testing in order to ensure the health and safety of host customers is not jeopardized by any air infiltration energy efficiency measure installed as part of the LIW SOP. Air infiltration reduction measures should be considered for installation pursuant to the passing results (as defined in the next paragraph) of the CO and air infiltration testing.
For residences with combustion equipment (e.g., natural gas or propane), service providers must not install any measure or measures that would result in ambient air CO levels exceeding 9 ppm at project completion. Service providers will be required to measure and record pre- and post-installation CO readings at each installation site.

Homes treated for air infiltration reduction must be centrally cooled with electric refrigerated air conditioning to claim cooling savings; to claim heating savings, homes must be centrally heated with either a furnace (gas or electric resistance) or heat pump.

There is an upper limit of 5.2 CFM50 per square foot of the house floor area for the pre-retrofit infiltration rate on eligible projects. For homes where the pre-retrofit leakage exceeds this limit, savings will be awarded against the leakage cap. Utilities may require certification or competency testing of personnel who will perform the blower door tests.

Air leakage should be assessed through testing following BPI standards. In some limited cases where testing is not possible or unsafe (e.g. due to potential presence of asbestos), visual assessment may be satisfactory. Blower door air pressure measurements must also be used to ensure post treatment air infiltration rates are not less than those set forth by the standard in Equation 68, based on floor area and number of bedrooms. These calculated minimum CFM50 values assume two occupants for a one-bedroom dwelling unit and an additional person for each additional bedroom. Where higher occupant densities are known, the minimum rate shall be increased by 7.5 CFMNat for each additional person. A CFMNat value can be converted to CFM50 by multiplying by the appropriate N factor in the table below.

\[ \text{Min CFM50} = [0.03 \times A\text{Floor} + 7.5 \times \text{OCC}] \times N \]

**Minimum Final Air Ventilation Rate***

<table>
<thead>
<tr>
<th>SHIELDING</th>
<th>1 STORY</th>
<th>2 STORY</th>
<th>3+ STORIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well Shielded</td>
<td>22.2</td>
<td>17.8</td>
<td>15.5</td>
</tr>
<tr>
<td>Normal</td>
<td>18.5</td>
<td>14.8</td>
<td>13.0</td>
</tr>
<tr>
<td>Exposed</td>
<td>16.7</td>
<td>13.3</td>
<td>11.7</td>
</tr>
</tbody>
</table>

* Measured in CFM at 50 pascals (Pa) per square foot

- Well shielded is defined as urban areas with high buildings or sheltered areas, or buildings surrounded by trees, bermed earth or higher terrain.
- Normal is defined as buildings in a residential neighborhood or subdivision setting with yard space between buildings (80%-90% of houses fall in this category).
- Exposed is defined as an open setting with few surroundings, buildings or trees.

The maximum CFM reduction percentage is capped at 40% for RSOP homes. It is important to note the minimum ventilation rate specified earlier in this section still applies for cases where the maximum 40% CFM reduction cannot be achieved due to the post CFM value being limited by the minimum allowable post CFM value provisioned for safety reasons.

The Texas TRM stipulates an upper limit of 5.2 CFM50 per square foot of house floor area for the pre-retrofit infiltration rate as part of eligibility criteria. For homes where the pre-retrofit leakage exceeds this limit, energy and demand savings must be calculated using the premeasure-installation leakage cap. Therefore, when the pre-retrofit leakage is capped, energy and demand savings can only be claimed for a 40% reduction in CFM compared to the capped pre-CFM value. When the pre-retrofit leakage is not capped, energy and demand savings can only be claimed for a 40% reduction in CFM compared to the tested, actual pre-retrofit infiltration rate of the home.
The Texas TRM requires all contractors to provide sufficient evidence such as pictures capturing the scope/type of retrofit implemented and blower door test readings for all RSOP homes that reach a CFM reduction percentage within the range of 30%-40%. In the absence of any evidence, the TRM places a cap of 30% CFM reduction for calculating energy and demand savings.

**Attic Access**

Installation must meet the following guidelines:

- The attic access measure is defined as sealing the scuttle hatch or opening (usually a pull-down ladder or push-up hatch that opens to the attic or any other unconditioned space) in the home.
- The seal should be continuous and touching. All four sides of the hatch door should be sealed. (This includes the hinged side.)
- The attic access must be located in the conditioned space.

**Door Threshold**

Installation must meet the following guidelines:

- You must show work on the threshold was performed. Explain in detail in the installation report what was done and what measures were performed to the threshold.
- When completed, the customer should be able to close and lock the door normally with little to no additional effort.
- You should not be able to see visible light from underneath the door when the installation is complete.

**Light Switch and Outlet Gaskets**

Installation must meet the following guidelines:

- All accessible switch plates and electrical outlets must be treated if the measure is claimed.
- You must report the number of switches or outlets treated and the number not treated. This should be included in the installation report sent to the program manager.
- Obstructions by heavy furniture, plug loads or structural damage to a wall such as damage to paint or sealant removal that could result from removing the switch plate or outlet cover are acceptable reasons for not treating the switch or outlet.

**Window/Doorframe Caulking**

Installation must meet the following guidelines:

- The application of sealant around windows and doors must be effective at reducing or stopping air infiltration. If the condition of the surface (window seal or doorframe) is in poor enough condition that the application of caulk will not be effective, the measure should not be installed.
- If you treat a window, the whole window should be treated. Do not just seal cracks around one side of the window. If the measure needs to be installed, treat all cracks around the window.

**Caulk Baseboards and Ceiling Trim**

Installation must meet the following guidelines:

- If installing this measure, all visible cracks around the baseboards and/or ceiling trim must be treated.

**Sealed Plumbing Penetrations**

Installation must meet the following guidelines:

- In sealing plumbing penetrations, you must use approved materials.
• If you claim you installed this measure, all plumbing penetrations must be sealed.

Sealed-Light and Fan Penetrations
Installation must meet the following guidelines:
• Must give detailed description of the number and location of the treated penetrations. (This measure refers to bathroom lights and/or exhaust fans.)

Furnace Closet
• The furnace closet door should be treated to effectively seal the closet door to the jamb.

Wall Insulation
Installation must meet the following guidelines:
• The service provider may not install wall insulation unless the wall area to be treated has been preinspected by Oncor. Failure to preinspect will result in a failure.
• The insulation applied must be R-13 or higher. Only exterior walls should be treated.
• There must be no preexisting insulation.
• If insulating under a drywall patch, you must report the correct dimensions of the patch and the correct wall area (square footage) treated with insulation.
• The method of installation of the wall insulation must be reported (blown or other) to Oncor.

Air Conditioning and Heat Pump Systems
Installation must meet the following guidelines:
• Pictures of the manufacture plate of the furnace and condenser will need to be uploaded to the measure with replacement of all air conditioning and heat pump systems.
• The model and serial number for the existing and new system will be required entries in EEPM when submitting these measures.
• A copy of the AHRI sLIWt is required for each newly installed system.

Ceiling Insulation
Insulation improvements to the ceiling area above a conditioned space are eligible for residences with central air cooling and/or heating systems. Homes with window air conditioning and/or space heating are also eligible.

Existing ceiling insulation in participating homes, ranging from no insulation material (R-0) to the equivalent of about 6 inches of fiberglass batt insulation (R-22). The current average ceiling insulation level at participating homes is to be determined and documented by the insulation installer.

Degradation due to age and density of the existing insulation should be taken into account.

In the event existing insulation is or has been removed during the measure implementation, the existing R-value for claiming savings shall be based upon the R-value of the existing insulation prior to removal.

A ceiling insulation level of R-38 is recommended throughout Texas as prescribed by the U.S. Department of Energy. Accordingly, deemed savings are provided for insulating to R-38. Adjustment factors are provided to allow contractors to estimate savings for installation of higher or lower levels of post-retrofit insulation: contractors should estimate post-retrofit R-value according to the average insulation depth achieved across the area treated and R-per-inch of the insulation material installed.
For all homes receiving ceiling insulation:
Service Provider should submit the following documentation:

1) Customer Agreement
2) Tenant Eligibility Certificate
3) Clear photo of the existing insulation level measurement for each measure reported. If reporting all three R-value ranges R5-R8 & R9-R14, and R15-R22 (3 photos are required) with identification card including the address, date taken, reported R-Value & existing type of insulation

4) Clear photo of the entire attic prior to adding new insulation (existing insulation must be R22 or less). If the entire attic cannot be captured in one photo please take multiple photos that together represent the entire attic.

5) Clear photo of the new insulation measurement to identify the number of inches added (Required to insulate up to R38) with identification card of address and date taken.

6) Clear photo of the entire attic after the new insulation is installed (Required to insulate up to R38). If the entire attic cannot be captured in one photo please take multiple photos that together represents the entire attic.

7) A photo of the condenser ID label
8) A picture of the furnace from a distance indicating no flue is present if not reporting gas furnace

11 ELIGIBLE MEASURES AND INSTALLATION CRITERIA

HOME ENERGY EFFICIENCY STANDARD OFFER PROGRAM
ELIGIBLE MEASURES AND INSTALLATION CRITERIA

CONTROL ENVELOPE ENERGY WASTE

<table>
<thead>
<tr>
<th>MEASURE</th>
<th>MATERIAL</th>
<th>MINIMUM CRITERIA FOR INSTALLATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infiltration</td>
<td>Acrylic latex plus silicone Sealing compounds</td>
<td>• Conforms to ASTM C834-95 with silicone</td>
</tr>
<tr>
<td></td>
<td>Caulk</td>
<td>• Conforms to ASTM C920-98</td>
</tr>
<tr>
<td></td>
<td>Polyurethane expanding foam</td>
<td>• Conforms to ASTM C920-98</td>
</tr>
<tr>
<td></td>
<td>Elastomeric sealant (including polysulfide, polyurethane and silicone caulk)</td>
<td>• All visible caulk should be clear</td>
</tr>
<tr>
<td></td>
<td>Fiber-backed mastic compound</td>
<td>• A minimum 10-year life expectancy for ALL materials used</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Foam tape and/or adhesive-backed polyethylene insulation must be secured with staples, nails or screws in order to qualify. (Foam tape and/or adhesive-backed polyethylene insulation combined with a sealing compound is NOT an approved material.)</td>
</tr>
<tr>
<td>Weather Stripping</td>
<td>Foam tape</td>
<td>• Must be closed cell</td>
</tr>
<tr>
<td></td>
<td>Rigid gaskets</td>
<td>• Must be UV resistant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Must be adjustable and attached permanently</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Gaskets must be attached to an aluminum carrier</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• A minimum 10-year life expectancy for ALL materials used</td>
</tr>
</tbody>
</table>
Foam tape and/or adhesive-backed polyethylene insulation must be secured with staples, nails or screws in order to qualify.

**CONTROL INTERIOR ENERGY USAGE**

<table>
<thead>
<tr>
<th>MEASURE</th>
<th>MATERIAL</th>
<th>MINIMUM CRITERIA FOR INSTALLATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insulation</td>
<td>Mineral fiber (blanket)</td>
<td>• Conforms to ASTM C665-98</td>
</tr>
<tr>
<td></td>
<td>Mineral fiber (loose fill)</td>
<td>• Conforms to ASTM C764-98</td>
</tr>
<tr>
<td></td>
<td>Cellulose</td>
<td>• Conforms to ASTM C739-97</td>
</tr>
<tr>
<td></td>
<td>Vermiculite (loose fill)</td>
<td>• Conforms to ASTM C1149-97</td>
</tr>
<tr>
<td></td>
<td>Perlite (loose fill)</td>
<td>• Conforms to ASTM C516-80</td>
</tr>
<tr>
<td></td>
<td>R-value</td>
<td>• Conforms to ASTM C549-81</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Existing ceiling insulation of R-22 is in compliance with the program</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Added ceiling insulation above R-22 must be installed to R-38 in compliance with deemed savings standards</td>
</tr>
<tr>
<td>Insulating R-Values</td>
<td>Walls</td>
<td>• Install to R-13</td>
</tr>
<tr>
<td></td>
<td>Knee wall</td>
<td>• Install to R-19</td>
</tr>
<tr>
<td></td>
<td>Floor (pier and beam)</td>
<td>• Install to R-15</td>
</tr>
</tbody>
</table>

**CONTROL HVAC EFFICIENCY**

<table>
<thead>
<tr>
<th>MEASURE</th>
<th>MATERIAL</th>
<th>MINIMUM CRITERIA FOR INSTALLATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>HVAC</td>
<td>Packaged units</td>
<td>• Must comply with deemed savings and installation standards</td>
</tr>
<tr>
<td></td>
<td>Split system</td>
<td>• Must comply with deemed savings and installation standards</td>
</tr>
<tr>
<td>DIAGNOSTIC MEASURE</td>
<td>Health and Safety</td>
<td>• Test every housing unit that has combustion equipment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Ambient air CO levels must not exceed 9 ppm at project completion</td>
</tr>
</tbody>
</table>
|                    | Air Infiltration/Indoor | There is an upper limit of 5.2 CFM50 per square foot of house floor area for the pre-retrofit infiltration rate on eligible projects. For homes where the pre-retrofit leakage exceeds this limit, savings will be awarded against the leakage cap. Utilities may require certification or competency testing of personnel who will perform the blower door tests.
Air leakage should be assessed through testing following BPI standards. In some limited cases where testing is not possible or unsafe (e.g. due to potential presence of asbestos), visual assessment may be satisfactory. Blower door air pressure measurements must also be used to ensure posttreatment air infiltration rates are not less than those set forth by the standard in Equation 68, based on floor area and number of bedrooms. These calculated minimum CFM50 values assume two occupants for a one-bedroom dwelling unit and an additional person for each additional bedroom. Where higher occupant densities are known, the minimum rate shall be increased by 7.5 CFM Nat for each additional person. A CFM Nat value can be converted to CFM50 by multiplying by the appropriate N factor in the table below:

\[
\text{Min CFM}50 = [0.03 \times \text{Floor area} + 7.5 \times \text{Occupants}] \times N
\]

<table>
<thead>
<tr>
<th>Minimum Final Air Ventilation Rate*</th>
<th>1 Story</th>
<th>2 Story</th>
<th>3+ Stories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well shielded</td>
<td>22.2</td>
<td>17.8</td>
<td>15.5</td>
</tr>
<tr>
<td>Normal</td>
<td>18.5</td>
<td>14.8</td>
<td>13.0</td>
</tr>
<tr>
<td>Exposed</td>
<td>16.7</td>
<td>13.3</td>
<td>11.7</td>
</tr>
</tbody>
</table>

*Measured in CFM at 50 Pa per square foot

- **Well shielded** is defined as urban areas with high buildings or sheltersed areas, or buildings surrounded by trees, bermed earth or higher terrain.
- **Normal** is defined as buildings in a residential neighborhood or subdivision setting with yard space between buildings (80%-90% of houses fall in this category).
- **Exposed** is defined as an open setting with few surrounding buildings or trees.

### 12 CARBON MONOXIDE AND AIR INFILTRATION TESTING

Oncor requires service providers to perform CO and air infiltration testing to ensure the health and safety of host customers is not jeopardized by any air infiltration energy efficiency measure installed as part of the LIW SOP. Air infiltration reduction measures are only eligible for program incentives when submitted in conjunction with passing CO and air infiltration test results. If the unit fails to meet either the CO or the ventilation rate standard, the service provider shall not install any measure that would or could reduce air infiltration in the unit. These measures include, but are not limited to, caulking, weather stripping and duct sealing/repair.

CO tests must be conducted in all instances where combustion (e.g., natural gas or propane) equipment is present. Service providers must not install any measure or measures that would result in ambient air CO levels exceeding 9 ppm at project completion. Service providers will be required to measure and record pre- and post-installation CO readings at each installation site.

If the residence meets the LIW SOP CO standard and the service provider proposes to install air infiltration measures, the service provider must then conduct a blower door air infiltration test and record the pre-installation ventilation rate at 50 Pa in normal conditions. The minimum pre-installation ventilation rate for households treated with infiltration measures shall not be less than the standards set forth in the table below.
Minimum Final Air Ventilation Rate*

<table>
<thead>
<tr>
<th>SHIELDING</th>
<th>SINGLE-Story</th>
<th>TWO-STORY</th>
<th>3&gt;STORIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well Shielded</td>
<td>1.18</td>
<td>0.95</td>
<td>0.83</td>
</tr>
<tr>
<td>Normal</td>
<td>0.99</td>
<td>0.79</td>
<td>0.69</td>
</tr>
<tr>
<td>Exposed</td>
<td>0.89</td>
<td>0.71</td>
<td>0.62</td>
</tr>
</tbody>
</table>

* Measured in CFM at 50 Pa per square foot

- Well shielded is defined as urban areas with high buildings or sheltered areas, or buildings surrounded by trees, bermed earth or higher terrain.
- Normal shielding is defined as buildings in a residential neighborhood or subdivision setting with yard space between buildings (80%-90% of houses fall in this category).
- Exposed shielding is defined as an open setting with few surroundings, buildings or trees.

Minimum final air exchange rates are listed in the air infiltration guidelines found in the Texas TRM, Version 8.0. To qualify for an incentive, a minimum air leakage reduction of 10% of the pre-installation reading is required.

Oncor will require the use of the iTEC RESNET application to report each air infiltration measure. The results report from the application is required to be uploaded for each air infiltration submitted on a production report in EEPM. The application provides geotagging for projects, and this will require the use of a smartphone or tablet that can be connected to a wireless network.

The app may be downloaded to an electronic device from https://play.google.com/store/apps/details?id=com.energyconservatory.resnet&hl=en%20itunes.app&c=0%3A9%7C1000149964051%7C1%7C%7C%7C%7C%7C%7C%7C%7C%7C&app=at_iTEC_RESNET/3000-2064_4-75691606.html.

The instructional video for the app may be viewed at youtube.com/watch?v=kCoLBcy4H6M.

**Carbon Monoxide Test Equipment Specifications**

CO testing is to be performed with the Bacharach Monoxor II sensor or an equivalent Texas Department of Housing and Community Affairs approved testing device. CO detectors are not suitable testing devices and are not to be used. The sensing device must have a range from 0-2,000 ppm; accuracy +/- 5% of readout; and readout resolution = 1 ppm adjustable to 0.