

Quality Assurance Policies and Procedures

Residential – Existing Homes

As a public benefit corporation, NYSERDA strives to deliver the most effective residential energy efficiency Programs possible and to protect rate payer money. To achieve these goals, the Residential programs contain a quality assurance component. The Quality Assurance (QA) process is used to verify that projects in the Program meet all requirements while maintaining healthy and safe living conditions for the occupants. The QA process also serves as a learning and teaching tool supporting the application of sound building science principles and the delivery of highest quality services to the homeowners of New York State.

Section 1: Overview

Projects are subject to post completion QA review which includes a comprehensive Field Inspection and a detailed report of the findings. Field QA Inspections are a crucial part of the Program and provide both NYSERDA and Participating Contractors with valuable information pertaining to technical proficiency and compliance with Program rules. As stated in the Participation Agreement, Participating Contractors shall not inhibit or discourage any homeowner from participating in Program QA inspections and shall make a good faith effort to facilitate the Program QA process. The following summarizes the Residential QA procedures for scheduling, inspecting, and reporting on QA Field Inspections.

Section 2: Scheduling Procedures

Section 2.1: Sampling

Projects completed through the Program are subject to QA field inspection by NYSERDA or its QA designee. Although projects selected for inspection generally occur within 30 days from the date of completion, NYSERDA reserves the right to inspect projects at any time should specific concerns be brought to our attention. Below are the established sampling protocols based on the Participating Contractor's program status, or by special request:

- **Provisional Status:** Newly Participating Contractors must complete a minimum of three projects meeting the minimum standard QA requirements. These QA requirements must be met by the sixth inspected project or within a period of one year from the date of completion of the first completed project, whichever comes first. Newly participating contractors are strongly encouraged to attend at least the first 3 QA field inspections as it provides an opportunity to learn the field inspection process.
- **Full Status:** The target inspection rate for full status contractors is 15% of completed projects, with a minimum of 1 inspection per quarter. NYSERDA reserves the right to adjust the field inspection rate based on the individual performance of each contractor.

- **Special Request:** Projects may be selected for inspection at the request of program customers or NYSERDA within one year of signing the Project Incentives and Financing Eligibility Summary Report. All QA field inspections conducted beyond 90 days from signing this form will not be scored and will be limited to the specific concerns, and may include, but not be limited to: (a) health and safety testing such as gas leaks, combustion appliance drafting, and CO measurement, (b) verifying that the measures on the contract are present, (c) verifying that the measures on the contract are present and have been installed correctly.
- **Probationary Status:** Up to 100% of projects completed while on Probationary status may be subject to field inspections. The result of those inspections will be used by NYSERDA's Compliance team as one determining factor in a participating contractor's future status.
- **Suspended Status:** 100% of projects completed while on a Suspended status may be subject to field inspections. The result of those inspections will be used by NYSERDA's Compliance team as one determining factor in a participating contractor's future status.
- **Terminated Status:** Depending on the circumstances that results in a participating contractor being terminated from the Program, up to 100% of projects completed within the last year may be inspected.

Section 2.2: Contractor Attendance at Field Inspections

Customers contacted by NYSERDA's QA designee for a QA field inspection will have the option of allowing the Participating Contractor to be present at the time of inspection. Customers are encouraged to allow the Participating Contractor to attend so that any questions can be answered and minor fixes may be made on site. If the customer agrees, the Participating Contractor shall be notified of the upcoming inspection via email and shall RSVP via the QACSS Portal. Participating Contractors are generally notified of scheduled inspections two weeks before the inspection date but no less than 5 business days.

Customers have the right to request that the Participating Contractor not attend the QA field inspection. In these situations, the Participating Contractor will not be notified of the scheduled inspection but will receive the result of the inspection within 5 business days.

Customers will be asked to answer a 10 question customer satisfaction survey during the scheduling process. These questions are listed in Table 1.

Table 1. Customer Satisfaction Survey	
Question	Points
1) Did the contractor provide flexible and/or accommodating scheduling that fit your schedule?	1
2) Was the contractor prompt and timely? This may include start and end times for work and meetings.	1
3) Did the contractor communicate well with you? This may include both oral and written explanations of work, estimates, technical issues, components, etc.	1
4) Was the Contractor responsive to your questions and concerns? This may include prompt and considerate responses to phone calls, emails, or questions asked on site.	1
5) Was the Contractor organized? This may include staff arriving prepared to begin work, materials present when needed, documentation being clear and orderly, etc.	1
6) Was the Contractor generally clean? This may include contractor's cleanliness during work and after completion.	1
7) Was the contractor sufficiently knowledgeable? This may include ability to clearly explain technical components, the program, its program workflow and other processes, including incentives.	1
8) Was the contractor generally professional? This may include the contractor's use of proper identification such as uniforms or business cards, whether they had professional conduct, and whether their equipment appeared well maintained.	1
9) How likely would you be to recommend this Contractor to a family member or friend?	1
10) How likely would you be to recommend the Program to a family member or friend?	1

Section 3: Field Inspection Procedures

Section 3.1: Overview

The following procedures are followed during QA field inspections to determine adherence to technical and programmatic rules in the categories of Assessment Quality, Work Quality, and Health & Safety. To view a detailed list of all QA field inspection check points, refer to the [QA Residential Inspection Checklist](#), also available on the Program's Contractor Resource website.

Section 3.1.1: Assessment Quality

The Assessment Quality component covers the quality of the contractor's submitted assessment documentation in comparison to the on-site conditions verified by the QA inspector. This includes general data collection about the home, measurements, existing conditions and recommendations.

Available points: Points are assigned to all tasks, with more points assigned to tasks that are considered more important to the quality of the assessment. However, some tasks are not

applicable at certain projects and some tasks cannot be inspected because of site conditions. The point values for these tasks are not counted toward the total available points for the job and do not have any scoring implications.

Total Earned points: At each inspection, the inspector will evaluate the required tasks that should have been performed as part of the assessment. During the inspection, the QA Inspector will give each task a qualitative rating (Pass, Conditional Pass, Fail, Not Inspected, Not Applicable). Each rating corresponds to a numerical multiplier that determines what fraction of the available points the contractor earns for that task (i.e. full, partial, or none) as outlined in Table 2.

Table 2. Assessment Quality Ratings		
Rating	Description	Multiplier
Pass	Conditions were recorded, measurements were performed, and recommendations were made correctly.	1.0
Conditional Pass	Conditions were recorded, measurements performed, and recommendations were made but minor issues were found that should be communicated to the contractor.	0.67
Fail	Conditions were recorded, measurements performed, and recommendations were made poorly or not at all.	0
Not Inspected	Conditions, measurement or recommendations could not be inspected due to site conditions and therefore is not included in point calculations.	None
Not Applicable	Conditions, measurement or recommendation was not applicable to the site, and therefore is not included in the point calculations.	None

Section 3.1.2: Work Quality

The Work Quality component represents the largest portion of a project score as it is paramount to achieving predicted energy savings, has a large impact on customer satisfaction and is integral to a positive evaluation of the overall program. Each Energy Efficiency Measure (EEM) installed by a contractor has a grouping of required tasks to properly install the EEM. The quality of work is established through a field inspection to evaluate installed measures against a set of clearly defined tasks outlined in the following sections.

The Work Quality score is derived by dividing earned points for all installed EEMs by the available points for all EEMs, then normalizing it to a 100-point scale. For example, 15 earned points out of 20 available points equals 75%, or 75 out of 100.

Available points: Points are assigned to all tasks, with more points assigned to tasks that are considered more significant to project performance. Some tasks are not applicable at certain jobs and some tasks cannot be inspected because of site conditions. The points for these tasks are not counted toward the total available points for the job. Therefore, the total available points for a job are equal to the sum of the assigned points for all applicable and inspected tasks on the job. A perfect score is achieved when the earned points determined by observations during field inspection are equal to the total available points for a given job. Tasks and associated points assigned for each EEM can be found in the Work Quality section of the QA Residential Inspection Checklist.

Total Earned points: At each inspection, the inspector will consider the EEMs that were installed in a project and then evaluate the required tasks that should have been performed in the installation of the EEM. During the inspection, the QA Inspector will give each task a qualitative rating. Each rating corresponds to a numerical multiplier that determines what fraction of the available points the contractor earns (i.e. full, partial, or none) as outlined in Table 3.

Table 3. Work Quality Ratings		
Rating	Description	Multiplier
Pass	Work was performed correctly.	1.0
Conditional Pass	Work was performed but minor issues were found that should be communicated to the contractor.	0.67
*Fail	Work was performed poorly or was not performed. Return visit or billing adjustment will almost always be required.	0
Not Inspected	Work that could not be inspected due to site conditions and therefore is not included in point calculations.	None
Not Applicable	This task was not applicable to the site, and therefore is not included in the point calculations.	None

*Measures that are corrected by the Participating Contractor during the course of the inspection will be documented and assessed at the condition first found by the QA Inspector.

Some tasks have been identified as being critical to the successful completion of that measure. When one of these tasks is rated as fail, it will result in a significant reduction in the scoring.

Work Quality component scores will be reduced according to the following:

- Critical 1 – Reduces measure score by 50%
- Critical 2 – Reduces measure score by 50% and Work Quality component score by 25%

Section 3.1.3: Health & Safety

The Health & Safety Quality component covers the quality of the contractor’s submitted Health & Safety documentation in comparison to the on-site conditions verified by the QA inspector. This includes an assessment of the combustion appliance safety testing data and a visual inspection of the home to determine potential H&S conditions were treated properly. A full list of the inspection points is included in the QA Residential Inspection Checklist.

Table 4. Health & Safety Quality Ratings		
Rating	Description	Multiplier
Pass	Combustion Safety testing results are within Program and BPI testing limits and all potential H&S hazards were properly addressed.	1.0
Conditional Pass	Combustion Safety testing results indicates a recommendation to service an appliance should have been made but no recommendation was made.	0.67
*Fail	Combustion Safety testing results are outside of Program or BPI testing limits and one or more H&S hazards were not properly addressed.	0
Not Inspected	Work that could not be inspected due to site conditions and therefore is not included in point calculations.	None
Not Applicable	This task was not applicable to the site, and therefore is not included in the point calculations.	None

Section 4: Reporting

Section 4.1: Job Score Report (JSR)

Projects that receive a QA field inspection currently receive a score ranging from 0 to 100, calculated based on the weighted scores of the three Job Score Components as illustrated in Table 4. The Job Score Report (JSR) details all evaluated project measures/tasks and any identified non-conformances.

Table 4. Job Score Components	
Assessment Quality	10%
Work Quality	70%
Health & Safety	20%
Total	100%

NYSERDA may at its discretion communicate with any customer concerning any matter relevant to proposed or completed projects. Any such communication may be in reply to a customer’s inquiry or initiated by NYSEDA on its own. NYSEDA retains the right to provide a copy of the JSR and any other information obtained during the QA field inspection directly with the customer, authorities having local jurisdiction or the utility. In an emergency, NYSEDA or its representatives, may take appropriate action to preserve the safety of the inhabitants. NYSEDA will notify the Contractor whenever it takes such action as soon as practicable.

Section 4.2: Corrective Action Report (CAR)

Projects that have non-conformances related to Health and Safety, Work Quality and Program compliance issues may require corrective action. While some non-conformances cannot be corrected post installation, others can be remedied through corrective action to the documentation, revised incentive applied to the project, or installation remediation. When NYSEDA seeks specific corrective action, a Corrective Action Report (CAR) will be issued with the JSR. Only projects that have non-conformances related to critical Health and Safety or Work Quality issues that require corrective action will result in a CAR. Projects that have only non-conformances to minor attributes will not require further action and no CAR will be issued.

Within 30 days of receipt of the CAR, and at no additional cost to the homeowner, the Participating Contractor shall make any required repairs or corrections to bring inspected work up to Program standards. Sufficient evidence of the remediation must be submitted via the Quality Assurance Contractor Scoring System (QACSS) to document the completion of the required corrective action.

Participating Contractors may dispute findings, and must do so within 15 days of issuance. All disputes must be completed using the QACSS within 30 calendar days. NYSERDA may at its option conduct a field verification of the remediated installation.

Section 4.3: Contractor Grade

Participating contractors will earn a Contractor Grade ranging from 0 to 100 based on the below component score results; scoring will begin after a contractor's first three (3) projects have been inspected and all component scores have been recorded. Scoring is updated monthly and may be used as a determinant for a contractor's Participation Status.

Table 5. Contractor Grade Components	
Average Job Score	70%
Average Responsiveness Score	20%
Average Customer Survey Score	10%
Total	100%

Section 4.3.1: Performance Reports

Each Participating Contractor shall have the ability to access all QA inspection results through the QACSS as well as having access to the following formatted reports.

- QA Performance Summary Report: This report includes the total number of projects completed in the previous month, quarter and 12 months; the total number of QA field inspections during the previous month, quarter and 12 months; and the average JSR, Contractor Grade, and component scores for Assessment Quality, Work Quality, and Health & Safety Quality, and Customer Survey Quality for the previous 12 months.
- QA Scheduling Report: This report includes a count of completed projects, inspections, contractor attendance at inspections, and the number of customers who refused an inspection.
- QA Detail Report: This report includes a list of all completed QA field inspections over designated period and the respective JSR score, and summary of all measure/task deficiencies.