

Quality and Market Standards Central Hudson Electric & Gas Solar Summit

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NYSERDA

New York State Energy Research
and Development Authority

50 YEARS 1975-2025

Quality and Market Standards Changes

Now part of Business Unit:

Business Performance Management

Quality and Market Standards:

Enhance customer trust, satisfaction and support market scale-up through error reduction and continuous improvement of clean energy project quality.

1. Conduct rigorous inspections and analysis of clean energy project quality.
2. Assess customer satisfaction with clean energy projects.
3. Use data on quality in contractor engagement, root cause analysis, workforce training, etc. to elevate overall quality in market.
4. Identify and publicize quality providers to reduce customer search/acquisition costs.
5. Utilize QA inspections as a risk mitigation tool, to enable program streamlining.

Now part of Business Unit:

Business Performance Management

Our mission is to drive continuous improvement through data-driven decisions, collaboration, and innovative technology, while fostering teamwork, diversity, and efficiency to serve our stakeholders and enhance the market.

Our vision is to create a data-driven, collaborative program where decisions are informed by thorough inspections, stakeholder input, and verified results. Through continuous improvement, transparent reporting, and technology-focused processes, we ensure efficiency and accuracy. We prioritize teamwork, diversity, and budget-conscious solutions to foster a resourceful and inclusive environment that serves both the organization and the broader market.

Current Portfolio

NY-Sun Portfolio

Residential and Nonresidential Program

1,522 project inspections in 2021

1,302 projects inspected in 2022

1,606 projects inspected in 2023

1,542 projects inspected in 2024

Large Commercial and Industrial

98 project inspections in 2021

116 projects inspected in 2022

111 projects inspected in 2023

101 projects inspected in 2024

NY-Sun Portfolio

Average QA score for all programs is stable over the last year.

80% of builders (contractors) across both programs are meeting program requirements with average scores of 3.0 or above for their jobs.

<1% critical non-conformances for 2023 and 2024.

90% Customers are happy with the program and the builders.

Quality Assurance Data

Average QA Scores

NY-Sun Residential and Nonresidential

NY-Sun Residential and Nonresidential				
Region	Average In-Field QA Score 2021	Average In-Field QA Score 2022	Average In-Field QA Score 2023	Average In-Field QA Score 2024
Statewide	3.57	3.76	3.75	3.55
Albany	4.32	3.15	4.38	4.25
Columbia	3.32	3.11	4.33	4.59
Dutchess	3.94	4.1	4.15	4.55
Greene	4.29	3.33	5	3.25
Orange	3.75	4	4.12	4.49
Putnam	3	3.67	3.89	3.5
Schoharie	1	4.33	4.25	2
Sullivan	4.2	3	3	4
Ulster	4.11	3.79	4.71	4.41

NY-Sun Residential and Nonresidential	
Region	Average In-Field QA Score 2024
Statewide	3.55
CHE&G	3.89

Average QA Scores

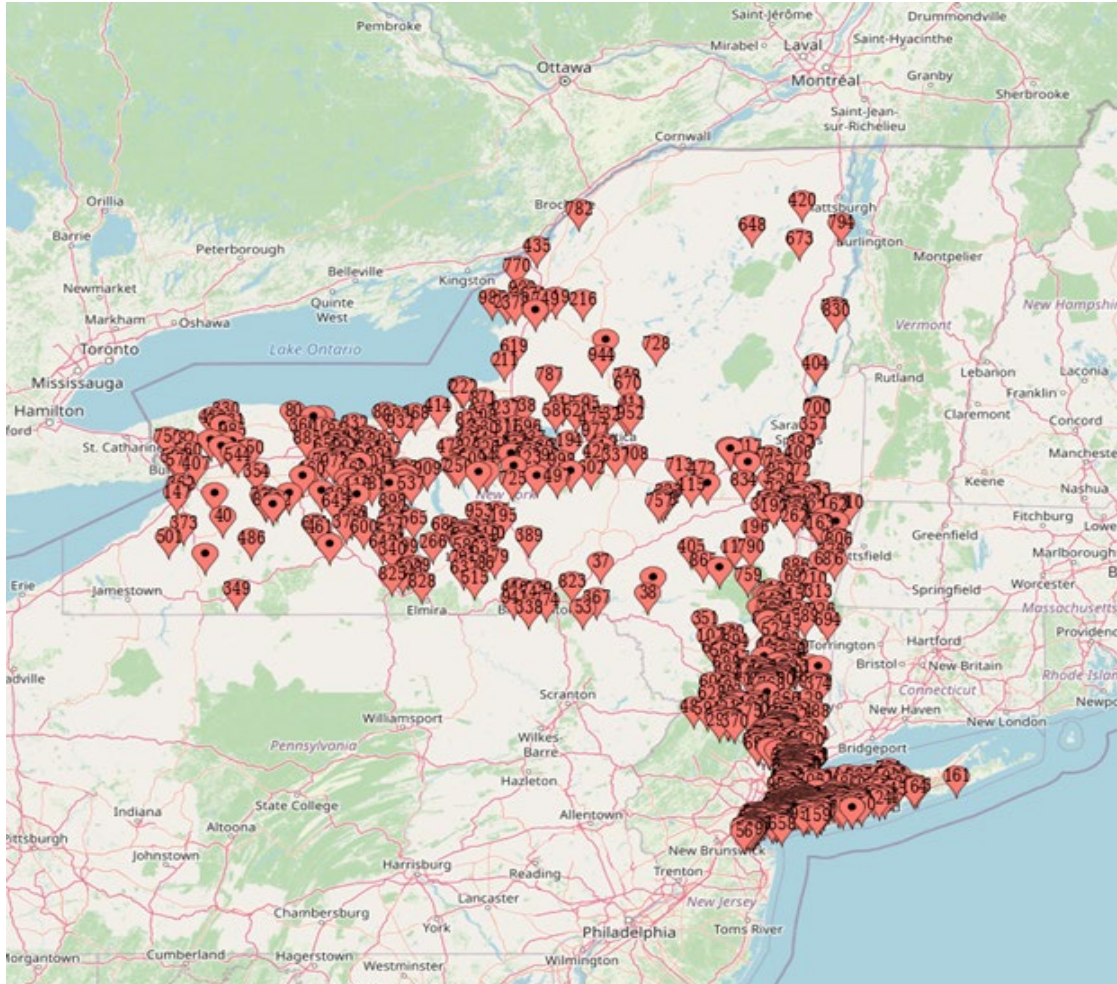
NY-Sun Large Commercial Industrial

NY-Sun Commercial Industrail				
Region	Average In-Field QA Score 2021	Average In-Field QA Score 2022	Average In-Field QA Score 2023	Average In-Field QA Score 2024
Statewide	4.3	3.9	4.2	3.8
Albany	5.0			5.0
Columbia				5.0
Dutchess	3.3	3.2	3.5	1.0
Greene	5.0	5.0	4.8	
Orange		5.0	5.0	4.3
Putnam				
Schoharie				
Sullivan				
Ulster	3.5	4.0	5.0	3.5

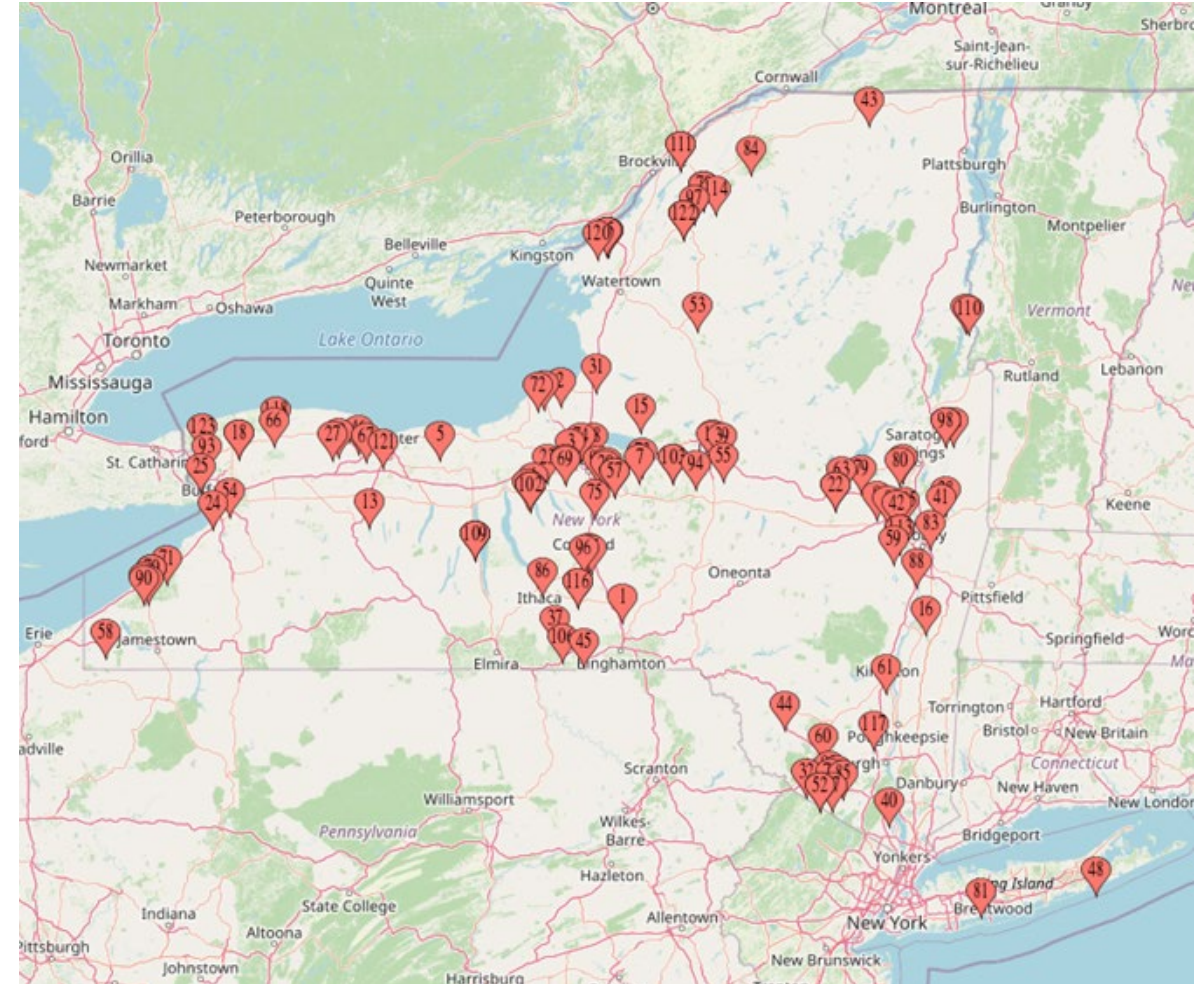
NY-Sun Commercial Industrail	
Region	Average In-Field QA Score 2024
Statewide	3.8
CHE&G	3.88

Map of all 2024 NY-Sun Inspections

Residential/Nonresidential inspections



Large Commercial Industrial inspections



Statewide 2024 Non-Conformances

NY-Sun Residential and Nonresidential and Commercial Industrial

NY-Sun Residential and Nonresidential 2024	
Non-Conformance Category	Percent of Non-conformances
Critical	1%
Major	20%
Minor	31%
Incidental	48%

NY-Sun Commercial Industrial 2024	
Non-Conformance Category	Percent of Non-conformances
Critical	0.9%
Major	19.2%
Minor	34.4%
Incidental	45.5%

Top Non-conformances for NY-Sun Residential and Nonresidential 2024

Statewide Top 3 Non-Conformances 2024 NY-Sun Residential and Nonresidential		
Category	Non-Conformance	Number of Occurrences
Major	Module is properly secured to the racking system per manufacturer instructions.	137
Major	Grounding electrode conductor is properly bonded to the main premises grounding electrode system.	133
Major	Service entrance conductors are properly spliced.	90

CHE&G Top 3 Non-Conformances 2024 NY-Sun Residential and Nonresidential		
Category	Non-Conformance	Number of Occurrences
Major	Grounding electrode conductor is properly bonded to the main premises grounding electrode system.	6
Major	All Material and equipment must be new and undamaged, per NY Sun program requirements.	4
Major	Disconnect is properly secured in place.	4

Top Non-conformances for NY-Sun Large Commercial Industrial

Statewide Top 3 Non-Conformances 2024 NY-Sun Large CI		
Category	Non-Conformance	Number of Occurrences
Major	Racking system and support structure are properly grounded.	19
Major	Broken and/or damaged tracker systems represent greater than 5% of all array trackers. All Material and equipment must be new and undamaged, per NY Sun program requirements.	13
Major	Grounded conductor(s) terminal lug is properly installed.	4

CHE&G Top 3 Non-Conformances 2024 NY-Sun Large CI		
Category	Non-Conformance	Number of Occurrences
Minor	Circuit conductors are properly supported and protected.	3
Minor	Circuit conduit or raceway is properly supported and secured.	3
Major	Broken and/or damaged tracker systems represent greater than 5% of all array trackers. All Material and equipment must be new and undamaged, per NY Sun program requirements.	1

Above Ground Conductor Management

Above Ground Conductor Management – Application Requirements

Above ground conductor management systems may consist of cable tray, ladder tray, messenger wire systems, or other approved conductor management systems.

- NYSERDA requires a site plan to clearly delineate and note all wire runs where above ground conductors are proposed for review and approval prior to installation.
- NYSERDA will accept incidental jumps of a reasonably short length between rows of arrays or along array rows, preferably under the array, when properly supported and protected from physical damage.
- Above ground conductors must be installed at the highest elevation above grade possible without interfering with tracker operations, or a minimum of 3 feet above grade.
- NYSERDA will NOT accept the use of above ground cable in locations that extend more than 3 feet beyond the outside edge of the array footprint and that are routed any significant distance to adjacent arrays, balance of system, or other service equipment components, except on a case-by-case basis such as wetlands or landfill/brownfields.

Above Ground Conductor Management – Application Requirements

- Permanent warning signage is required and must be installed on a driven post or messenger wire. Signage can be installed on a concrete ballasted post where site conditions (brownfield or shallow bedrock) prohibit a driven post.

Site Plan Requirements

- Delineate all proposed above ground conductor locations
- Elevation view of signage installed between rows
- Above ground conductor minimum height above grade
- Detail of signage
- Material specification of post and signage and signage mounting to post or messenger wire

Above Ground Conductor Management – Signage Requirements

- Mounted approximately 4 feet above grade
- Located at the midpoint between each row stating "DANGER – HIGH VOLTAGE"
- Have minimum dimensions of 10 inches by 14 inches with lettering a minimum of 2 inches tall
- The signage must be attached to the post or messenger wire using permanent methods. Plastic zip ties, including UV resistant are not acceptable
- Signage is required every 25 feet where above ground conductors are installed along array rows or any other location not under the array



Questions



Questions after the presentation?

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Have a Quality Day!