



NEW YORK
STATE OF
OPPORTUNITY.

NY-Sun



NY-Sun Initiative Residential/Small Commercial <200kW Solar Electric Systems Program Manual

New York State Energy Research and Development Authority

NYSERDA's Promise to New Yorkers:

NYSERDA provides resources, expertise, and objective information so New Yorkers can make confident, informed energy decisions.

Mission Statement:

Advance innovative energy solutions in ways that improve New York's economy and environment.

Vision Statement:

Serve as a catalyst – advancing energy innovation, technology, and investment; transforming New York's economy; and empowering people to choose clean and efficient energy as part of their everyday lives.

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1 PROGRAM SUMMARY

1.1 What Is The NY-Sun Incentive Program?

Through the NY-Sun Program, the New York State Energy Research and Development Authority (NYSERDA) provides financial incentives for the installation of new grid-connected solar photovoltaic (solar electric) systems that will offset the use of grid-supplied electricity. The Program is divided into two tiers: the NY-Sun Incentive Residential/Small Commercial (<200 kW), and NY-Sun Incentive Commercial/Industrial (>200 kW). This Program Manual contains the terms and conditions applicable to the Residential/Small Commercial only.

Under the NY-Sun Incentive Residential/Small Commercial program, system incentives are capped at the lower of: (1) 25kW per site/meter for residential systems, and 200 kW per site/meter for non-residential systems; or (2) the solar electric system kW size that is expected to produce energy equal to no more than 110% of the total kWh consumption for the previous 12 months of electric usage through the associated meter. New Construction systems must be sized not to exceed 110% of the calculated yearly projected kWh of electric usage.

Funding for the NY-Sun Incentive Program ("Program") has been allocated by the New York State Public Service Commission through the Renewable Portfolio Standard with additional funding made available through the Regional Greenhouse Gas Initiative. Incentives will be granted on a first-come, first-served basis, and applications will be accepted through December 31, 2023, or until funds are fully committed, whichever comes first.

Additional incentives for solar electric installations are available for customer households who qualify as low-to-moderate income, through the Affordable Solar Residential Incentive. The additional incentive matches or doubles the standard incentive and can apply for up to 6kW of the total system size. Funding for the additional incentive is available until exhausted. If MW block standard funding is exhausted prior to additional incentive, the additional incentive will continue at the standard incentive amount in place at time the MW block incentive was exhausted, until the funding for the additional incentive is exhausted as well.

The incentive caps apply to each site/meter. A site/meter is the location where the solar electric system will be interconnected to the utility meter. If multiple meters are present, multiple systems may be eligible for incentives; the incentive caps will apply to each meter. For example, a shopping mall with four separately metered businesses constitutes four "sites/meters," each of which may be eligible for incentives, subject to the kW and usage caps.

1.2 How Does the NY-Sun Incentive Program Work?

Financial incentives are available for solar electric systems for qualified customers who wish to install a solar electric system using a Participating Contractor in the NY-Sun Incentive Program. A list of Participating Contractors can be found at: <http://ny-sun.ny.gov/Get-Solar/Find-A-Solar-Electric-Installer>

Participating Contractors have demonstrated to NYSERDA that they fulfill the minimum requirements for participation in the NY-Sun Incentive Residential/Small Commercial Solar Electric Program, and have entered into a Participation Agreement with NYSERDA, under which the Participating Contractor agrees to abide by the NY-Sun Incentive Program terms and conditions. Incentives are paid directly to the Participating Contractor, who must apply the full value of the NYSERDA incentives to the customer cost of the solar electric system. Eligible Installers are those individuals who have demonstrated technical competence in the solar electric field; the Contractor is the business which has signed a written Participation Agreement with NYSERDA to abide by certain NY-Sun Incentive Program terms and conditions. Eligible Installers and their Contractor are responsible for preparing and submitting all necessary project application paperwork to NYSERDA.

Although not part of the submission requirements to NYSERDA, the **Customer Purchase Agreement for a purchased solar electric system is an important document as it is the contract between the customer and Contractor. The Customer Purchase Agreement must include the following and be signed by both parties.**

- Installation location, including town, street, and lot or building number;
- Installation schedule
- System description, including a description of the solar electric system being purchased and an outline of system specifications, the make and model of major system components, identification and location of easy-to-read meter, references to UL listing, etc.
- Estimate of annual energy output in kWh that summarizes the results of the System Loss Analysis;
- Total system and itemized costs broken down as follows: cost of modules, cost of inverter(s), balance of system (wires, racks, etc.), and labor and overhead (labor, permitting, etc.);
- Applicable incentives. The Customer Purchase Agreement must reflect the entire amount of the anticipated NYSERDA Incentive;
- An explanation and estimate of any additional costs that the customer will incur associated with the development, installation, and commissioning of the solar electric system; payment schedule;
- Party (customer or contractor) responsible for scheduling, obtaining and paying for permits, inspections or other regulatory requirements;
- Solar Electric System Warranty. A full warranty to the purchaser of the solar electric generation system installed under the Agreement for a period of five years after installation. The warranty should cover all components of the solar electric system against breakdown or degradation in electrical output of more than ten percent from the original rated electrical output. The warranty must cover the full costs, including labor and repair or replacement of defective

components or systems. If the solar electric system includes a battery pack, the battery system must be covered by a full warranty including labor and repair or replacement of the battery to the purchaser for two years after installation;

- Addendum to Customer Purchase Agreement must be completed and signed by both the customer and the Eligible Contractor/Installer. Certification by Installer and Customer is required as part of project application form at time of submittal.
- **It is important that the Contractor has a direct relationship with the customer.** Incentives and warranties must pass to the customer. As a condition of participation in the Program, Participating Contractors must abide by the terms and conditions in the Participation Agreement.

If the customer agreement consists of a lease or power purchase agreement (PPA), although not part of the submission requirements to NYSERDA, the **PPA or lease is an important document as it is the contract between the Customer and Contractor. The PPA or lease must include the following and be signed by both parties:**

- Installation location; including town, street, and lot or building number;
- Installation schedule (a realistic installation and interconnection schedule that takes into account NYSERDA and utility review requirements), system description, including a description of the solar electric system being purchased and an outline of system specifications, the make and model of major system components, identification and location of easy-to-read meter, references to UL listing, etc.
- Estimate of annual energy output in kWh that summarizes the results of the System Loss Analysis;
- Total Agreement cost and applicable incentives. The Lease or PPA must reflect the entire amount of the approved NYSERDA Incentive;
- An explanation and estimate of any and all additional costs that the customer will incur associated with the development, installation, and commissioning of solar electric systems; Payment schedule;
- Party (customer or contractor) responsible for scheduling, obtaining and paying for permits, inspections or other regulatory requirements;
- Warranty: At a minimum, the Contractor shall offer a production guarantee to the Customer for the initial term of this Agreement. This production guarantee will provide the customer with compensation if the system produces less than the guaranteed output as specified in the PPA or lease agreement. Guaranteed output may not allow cumulative degradation in electrical output of more than one percent per year from the original rated electrical output for the initial term of this agreement. Under no circumstance will Customers be responsible for any labor and repair or replacement costs of defective components or systems over the initial term of this Agreement. Should the customer sell the residence at which this solar facility is located, the production guarantee is fully transferrable to a new lessee, consistent with the terms of the lease or PPA agreement;
- Other terms such as the party (customer or Contractor) responsible for costs related to movement and re-installation of the system or parts of the system if needed due to necessary roof repairs or other issues and the terms under which those actions will be taken; and any insurance coverage related to the system;

- Addendum to Power Purchase agreement or Lease must be completed and signed by both the customer and the Eligible Installer. Certification by Installer and Customer is required as part of project application form at time of submittal.

1.3 Installer Qualifications

Interested qualified Installers may apply to participate in the Program at any time while the program is open. To qualify to participate as an Eligible Installer in the Residential/Small Commercial Program, an individual must have fulfilled one of the credentialing paths detailed below and fulfill all other NY-Sun Incentive Program participation requirements:

1. *NABCEP Certification (North American Board of Certified Energy Practitioners):*

Installers who choose to become credentialed through NABCEP hold the NABCEP PV Installation Professional certification.

2. *IBEW-NECA Electrical Journeyman & Apprentice Training (International Brotherhood of Electrical Workers and National Electrical Contractors Association)*

Installers who choose to become credentialed through the IBEW must fulfill both of the following requirements to be eligible to participate in the Program:

- A. Be a Journeyman Electrician, **and**
- B. Completed any IBEW/NECA, NABCEP or UL approved 40 hour PV training course.

3. *UL (Underwriters Labs)*

Installers who choose to become credentialed through the UL must fulfill the following requirement as a prerequisite to participate in the Program:

- Be certified by UL as a PV System Installer.

Additional qualifications are considered, including:

Experience – Installer will be evaluated on past performance in this or other NYSERDA programs, if applicable; installation experience; experience in performing shading analysis; other relevant credentials; employment history; customer satisfaction; and other relevant experience.

Customer References – Provide three (3) verifiable solar customer references (Customer name, address, phone, and email) for completed, grid-connected solar electric installation, along with the installed system size (kW), interconnection date and the Applicant's role in the project.

Performance Under Other NYSERDA Programs – An Installer Application will not be processed if the applicant is listed as the Installer or Contractor on a delinquent system, or where customer unresolved or performance issues exist with respect to this or other New York State programs.

1.4 Contractor Qualifications

Interested qualified companies may apply to participate in the Residential/Small Commercial Program at any time while the program is open.

To become a Participating Contractor and maintain that status, contractors must employ, or hire subcontractors that employ, Eligible Installers as detailed in Section 1.3. The Eligible Installer and the Contractor will be jointly responsible for the compliance of each system.

A Participating Contractor may use any business structure that is legal for conducting this type of business in the State of New York (corporation, LLC, sole proprietorship, etc.). To become a Participating Contractor, the Contractor must be able to meet all NY-Sun Incentive Program requirements including required insurance coverage and have the capability to provide warranty services on all solar electric systems installed, as required by the NY-Sun Incentive Program and NY State law.

A Participating Contractor must comply with all local authority requirements for registration and licensing that apply to the installation of solar electric systems.

Once a contractor becomes a Participating Contractor in the NY-Sun Incentive Program, the systems they install will be eligible to receive financial incentives through the NY-Sun Incentive Program. A solar electric system installed by a Contractor who is not a participant in the Program is not eligible for Program incentives.

1.4.1 Community Solar NY “Solarize” Participating Installers:

Participation in a Solarize campaign is voluntary. Contractors/installers who agree to participate must first become pre-qualified prior to submitting a proposal to a Solarize campaign. The contractor/installer may become pre-qualified by submitting their name, mailing address, FEIN, and PowerClerk ID to communitysolar@nyserda.ny.gov.

By agreeing to participate in a Solarize campaign, the contractor/installer is expected to act in good faith and follow proposed campaign guidelines.

A contractor/installer that is not selected for a Solarize program may not use the Solarize name. The Solarize name is reserved solely for selected contractors/installers.

If the status of selected contractor/installer changes to either suspended or terminated, the contractor/installer shall surrender all leads generated by the campaign to the program manager.

Failure to provide adequate services on previous Solarize campaigns may be grounds for rejecting future participation.

1.5 Participation Status

1.5.1 Provisional Status

All new Installers and Contractors will initially be classified as Provisional.

Applications submitted by Installers and Contractors in provisional status will receive enhanced review of both the Project Application and the Design Review; completed installations will be subject to enhanced Quality Assurance (QA) oversight.

Provisional Installer:

- A. Provisional Installers will be listed on NYSERDA's website and may be denoted as such. The listing must identify the Contractor that employs or subcontracts the Installer.
- B. Provisional Installers are limited to three (3) Project Applications at a given time. Additional Project Application(s) may be submitted after previous application(s) have passed NYSERDA design review, such that no more than three Project Applications are in design review at any given time.
- C. Provisional Installers must be onsite during the first three scheduled QA field inspections.
- D. Following the completion of the third project and the related QA field inspection, NYSERDA will conduct a formal review to evaluate a change in status. Evaluation for a change in status to Full Installer will be based upon the quality and consistency of all work submitted to the program and full compliance with NY-Sun Incentive Program rules including meeting credentialing requirements as described below.
- E. To be considered for a change in status to Full Installer, Provisional Installers must meet one of the credentialing standards referenced in the NY-Sun Incentive Program Manual.

After one calendar year as a Provisional Installer, a review of all work submitted to the NY-Sun Incentive Program will be conducted. The installer will be reviewed for a change in status, continuation as a Provisional Installer or termination from the Program.

Provisional Contractor:

- A. Provisional Contractors will be listed on NYSERDA's website.
- B. Provisional Contractors are limited to three (3) pending Project Applications at a given time as long as all Installer requirements are followed for each submitted application. Additional Project Application(s) shall not be submitted to and will not be accepted by NYSERDA.
- C. Provisional Contractor's staff must be onsite during the first three scheduled QA field inspections.
- D. Following the completion of the third project and the related QA field inspection, NYSERDA will conduct a formal review to evaluate a change in status. Evaluation of a change in status to Full Contractor will be based upon the quality and consistency of all work submitted to the program and full compliance with NY-Sun Incentive Program rules.
- E. To be considered for a change in status to **Full** Contractor, a Provisional Contractor is required to maintain on staff or through a subcontract at least one Full status Installer.

After one calendar year as a Provisional Contractor a review of all work submitted to the NY-Sun Incentive Program will be conducted. The contractor will be reviewed for a change in status, continuation as a Provisional Contractor or termination from the Program.

1.5.2 Full Status

Installers and Contractors who have successfully completed the terms of the provisional period and current Installers and Contractors who have demonstrated through past performance that they provide quality services through the Program will be placed in Full Status.

Full Installer:

- A. Full Installers will be listed on NYSERDA's website and may be denoted as such. Listing must designate the Contractor that employs or subcontracts the Installer.
- B. Full Installers must consistently deliver projects which fully pass QA field inspections.
- C. Full Installers must meet Program standards in terms of timely responses to NYSERDA communications and QA field inspection corrective action requests.
- D. Full Installers are required to meet one of the credentialing standards referenced in the NY-Sun Incentive Program Manual: Failure to satisfy this NY-Sun Incentive Program requirement and present appropriate documentation will result in an automatic change to **Probationary** status.

Full Contractor:

- A. Full Contractors will be listed on NYSERDA's website and may be denoted as such. Listing may designate Installer(s) employed or sub-contracted with the contractor.
- B. Full Contractors must consistently deliver projects which fully pass QA field inspections.
- C. Full Contractors must meet Program standards in terms of timely responses to NYSERDA communications and QA field inspection corrective action requests.
- D. Full Contractors must take effective corrective actions to deficiencies in performance as identified by NYSERDA.
- E. Full Contractors are required to maintain on staff or through a subcontract at least one "Eligible Installer" that meets one of the credentialing standards referenced in the NY-Sun Incentive Program Manual. Failure to satisfy this NY-Sun Incentive Program requirement and present appropriate documentation will result in an automatic change to **Probationary** status.

1.5.3 Probationary Status

Probationary Status is reserved for Installers and Contractors that have failed to meet the requirements of the NY-Sun Incentive Program. Probation is prescriptive in nature where NYSERDA defines a specific list of results to be achieved and a time frame for achieving those results.

Installers and Contractors may be placed in probationary status for any of the following reasons:

- A. Violation of program rules or ethical standards; or
- B. Failure to consistently deliver completed projects which pass the QA Field Inspection standard: or

- C. Failure to take effective corrective actions on a critical or major deficiency or a repeated incidental or minor deficiency in work quality or performance; or
- D. Three (3) or more Corrective Action Notices that have not been responded to or remain unresolved for more than 30 days; or
- E. A lapse in required credentials.

The probationary period will not be less than 30 days. Projects completed by Installers and Contractors on Probationary status will receive enhanced QA oversight. During the probationary period, the Installer or Contractor:

- A. Will remain on the NYSERDA website
- B. May continue to submit new Project Applications, subject to restrictions based upon the reason for the Probationary status.
- C. Will be subject to higher QA inspection levels as outlined in the NY-Sun Incentive Program Manual.
- D. Must remediate all issues related to probation, as directed by NYSERDA.
- E. Must submit to the Program, in writing, an agreed-upon action plan designed to ensure future violations are avoided.
- F. Must demonstrate successful results through a specified number of completed projects.

Upon satisfactory completion of the action plan and all remediation, and upon review of probationary period QA results, NYSERDA will determine whether to return the Partner to Full Status, continue the Probationary period or to suspend and/or terminate the Partner.

1.5.4 Suspended Status

Installers and Contractors that have failed to respond to prescriptive probation or have committed more serious violations of the NY-Sun Incentive Program rules will be placed in Suspended Status.

Installers and Contractors may be suspended from the Program if the Installer or Contractor:

- A. Fails to adequately fulfill the terms of the probationary period; or
- B. Is placed on probation for a second time within twelve (12) months; or
- C. Is under investigation for, or has been determined to have engaged in practices that have put the public or Program at risk; or
- D. Has one or more projects not completed within 210 days from the date of project approval, and where no Project Extension has been granted; or
- E. Has outstanding and unresolved request(s) for return of incentive to NYSERDA due to failure to meet Program requirements; or
- F. Has submitted an incentive request and it is found that the approved system components have not been delivered to the customer's site, or
- G. Has submitted any application documentation where there is falsification of any required items, including, but not limited to, permits and approvals, and customer signatures.
- H. Has a lapse in required credentials while on Probationary status; or
- I. Fails to consistently deliver completed projects which pass the QA Field Inspection standard.

During a suspension the Installer and/or Contractor:

- A. Will be removed from the NYSERDA website.
- B. Will not be allowed to submit new Project Applications to the solar electric Program.
- C. Must complete any work that is in progress when the Partner is suspended.
- D. Is prohibited from representing him/herself as a participating Installer or Contractor except in the execution of remedial action.
- E. May, depending on the reasons for suspension, be directed by NYSERDA to remediate issues related to the suspension, and may require the Installer and/or Contractor to submit to the Program, in writing, an agreed-upon action plan designed to ensure future violations are avoided.

Suspended Installers and Contractors will either progress to probationary status upon satisfactory completion of the specified remedial activities or resolution of issues related to the suspension or they will be terminated from program participation. Nothing in this Program status relieves the Contractor of the responsibility to fulfill any outstanding obligations to the Program, or Program customers as directed by NYSERDA.

1.5.5 Terminated Status

Terminated status is reserved for Installers and Contractors that have failed to respond to prescriptive and disciplinary measures or have committed serious violations of the program rules.

Installers and Contractors may be terminated from the Program if the Installer or Contractor:

- A. Has been on suspended status for more than 30 days and has been unresponsive to or failed to adequately fulfill the terms of their suspension; or
- B. Has had their credentials lapse while suspended; or
- C. Submits falsified documents or unauthorized signatures to the Program; or
- D. Commits illegal actions while participating in the Solar Electric Program; or
- E. Is convicted or has a principal who is convicted of a criminal charge that casts the Program in negative light or calls the integrity or workmanship of the Contractor into question; or
- F. Is in gross violation of program standards; or
- G. Repeatedly bills for uninstalled measures; or
- H. Fails to meet the terms of the Provisional period.

Installers and Contractors with this designation are prohibited from participation in the Solar Electric Program. Customers with incomplete projects will be notified of the Installers and/or Contractors termination and may be offered such remedies as NYSERDA deems appropriate. If appropriate, NYSERDA may notify the New York State Attorney General, the New York State Department of Labor, the Better Business Bureau, or others of NYSERDA's findings and decision to terminate the Installer and/or Contractor. Further, the officers and owners of the terminated Installer and/or Contractor are prohibited from being or becoming officers or owners of any other Program Partner. Nothing in this process relieves the Partner of the responsibility to fulfill any remaining obligation to the Program, or Program customers.

1.5.6 Status Review Process

The Status Review Process for administering Probationary, Suspended, or Terminated status is as follows:

- A. NYSERDA will provide written notice of at least ten (10) business days of its intention to take action. This notice will outline specific reasons and provide supporting documentation for the proposed action.
- B. During this period, the Installer or Contractor will be provided with an opportunity to respond to the notice.
- C. If the Installer and/or Contractor fails to respond to NYSERDA prior to the end of the notice period, the action will go into effect without further notice.
- D. NYSERDA will promptly review any request for an appeal of the decision received before the end of the notice period.
- E. NYSERDA will confirm, reverse or place its action on hold based upon a review of all information received within ten (10) business days of receipt.
- F. Intended and final action letters will be sent via email and US mail. The ten day notice period commences on the date of the e-mail from NYSERDA.
- G. NYSERDA reserves the right to shorten these time periods, or to take immediate action, in the event of an emergency, as determined by NYSERDA.

2 GENERAL PROGRAM RULES

2.1 Incentives

Incentives are available on a first-come, first-served basis. Program incentives are not reserved until a project has achieved 'Approved' status.

The program is based on a Megawatt (MW) Block model. The MW Block incentive structure is designed to provide certainty and transparency regarding incentive levels to the industry, accounts for regional market differences, provides a clear signal to industry that New York intends to eliminate cash incentives in a reasonable timeframe, and allows for the elimination of those incentives sooner in regions where the market conditions can support it, based on market penetration, demand, and payback.

The MW Block approach allocates MW targets to specific regions of the State and sectors within those regions; breaks those targets into blocks to which incentives are assigned; awards incentives to applications based on the block in effect at the time of application submission; and then moves to the next block and incentive level when a MW block is fully subscribed. Once all of the blocks within a region/sector are fully subscribed, an incentive is no longer offered in that region/sector. The regional MW Blocks established for the program are as follows:

- The region served by Con Edison ("Con Ed");
- The region served by PSEG Long Island as the LIPA System Operator ("Long Island"); and
- The balance of the state ("Upstate")

Sectors established for the program are as follows:

- Residential systems (up to 25kW in nameplate capacity);
- Small non-residential systems (up to 200kW in nameplate capacity); and
- Large non-residential systems (larger than 200kW in nameplate capacity).

Incentives for NYPA customers and customers of municipal power suppliers will be based on their sector and the region above in which they are located.

Ideally, the block structures will not require modification over the course of the program. However, NYSERDA will monitor market conditions and MW block subscription and will make adjustments to the MW block design, but only if necessary. Stakeholders will be notified at least one full block in advance of any planned changes.

Information on the MW Block design, including real-time data on the current incentive levels can be found by visiting: <http://www.nyserdera.ny.gov/pv-dashboard>

Any Contractor/Installer who moves forward with the installation of a project that has not been funded (has not obtained a status of “Received” in the program database) and has a status of “Submitted via Internet” does so at their own financial risk, as there is no guarantee of incentives until the project is both “Received” and “Approved.” Also, projects *completed* prior to being *submitted* to NYSERDA (prior to obtaining a status of “Submitted via Internet”) are **not** eligible to receive Program incentives.

Incentives are reserved for solar electric systems designed and installed by Eligible Installers/Participating Contractors. Incentives are available only for new equipment. Incentives will be provided directly to the Participating Contractors of record for the project, not to the customers.

NYSERDA reserves the right to deny new submitted applications if Contractor/Installer is delinquent on approved project milestones currently in pipeline.

For direct purchase transactions, the Agreement (Contract) between the Customer and Participating Contractor must clearly show the full amount of the NYSERDA incentive being applied toward the total solar electric system price. For Lease or Power Purchase Agreement (PPA) transactions, the value of the NYSERDA incentive must be applied to reduce the kWh cost.

Once a project has achieved “Approved” status, the Participating Contractor and Eligible Installer will be able to view the Purchase Amount approved under the show contract details to verify the amount. The incentive amount in the purchase order will not change assuming the solar electric system is installed, as approved, and within the Terms and Conditions of NYSERDA’s NY-Sun Incentive Program.

The construction of the system must begin within **120** days of approval of the incentive application by NYSERDA. Failure to do so may result in cancellation of the application. Construction begins when physical work of a significant nature begins. Work performed by

the applicant and by other persons under a written binding contract is taken into account in determining whether construction has begun.

Incentives are based on direct current module Wattage ratings at standard test conditions (“nameplate” rating).

2.2 Incentive Caps

Incentives are capped based on the proposed solar electric system size that does not exceed 110% of the total kWh consumption for the previous 12 months of electric usage. New Construction systems must be sized not to exceed 110% of the calculated yearly projected kWh of electric usage.

2.3 Standard Incentive Amounts

Incentives are paid the residential rate or the non-residential (commercial) rate based on the service classification of the meter, as determined by the utility. Farms with a residential service classification may retain that classification up to 100kW AC for net metering purposes.

Farms meeting the Agriculture and Markets Law 301 definition of “farm operation” will be considered commercial.

2.4 Affordable Solar Residential Incentive

Projects eligible for the Affordable Solar residential incentive will receive the standard NY-Sun incentive, and will receive an additional incentive per DC Watt of nameplate capacity, up to a cap of 6 kW. The value of the additional incentive will be equal to the NY-Sun Megawatt Block Incentive for which the project is eligible. Eligible projects greater than 6 kW in size will receive the full standard NY-Sun incentive for which they are eligible, but will not receive the additional incentive above the 6 kW cap. In cases where the base incentive is reduced due to losses from shading, azimuth and tilt, the Affordable Solar Residential Incentive will be likewise reduced, per Section 2.13.

To be eligible for the Affordable Solar incentive, a project must meet all requirements of the NY-Sun Residential Megawatt Block Incentive program, AND:

- Service the owner-occupied residence of a customer who is determined to be income-eligible for the Assisted Home Performance with Energy Star program with household income verified according to the rules of that program (application available at <http://ny-sun.ny.gov/Get-Solar/Affordable-Solar>);
- Attest to the existence of lighting efficiency and hot water efficiency measures in the project residence, to include:
 - High-efficiency lighting in high-use areas of the residence
 - Low-flow faucet aerators, if the residence has an electric water heating system
- Have a nameplate capacity (DC) equivalent to not greater than the lower of:
 - 110% of projected annual energy usage after implementation of required efficiency measures, OR
 - 100% of current annual energy usage;

- Provide annual cost savings to the customer for the full lifetime of the solar electric installation, as demonstrated through the Affordable Solar Residential Project Screening Tool. On the Affordable Solar Residential Project Screening Tool, the levelized cost of energy (LCOE) must be lower than the utility index rate.
- Include no escalation of monthly payment or energy rate if financed through a lease or PPA.

The additional incentive cannot be retroactively applied to project applications already submitted to Powerclerk. **Projects are not permitted to cancel and re-apply to obtain the additional incentive.**

2.5 Cancellation Requests

Any requests to cancel a project must be submitted to the Program using the *Change Request Form*.

- For cancelled projects in the *ConEd* or *Upstate* regions, the *Change Request Form* must be emailed to: PVForms@nyserda.ny.gov
- For cancelled projects in the *PSEG Long Island* region, the *Change Request Form* must be emailed to: PVFormsLI@pseg.com

When submitting a *Change Request Form* for a cancelled project, the following subject line naming convention should be used:

Cancellation Request, PV (4 digit installer # + Application #) - Name of Customer

Should a project wish to move forward after cancellation, the Eligible Installer/Participating Contractor must submit a new application package. In this case, the incentive level and all rules in effect at the time the new application is submitted will apply.

2.6 (90) Day Project Extensions for Non-Residential Projects Only

Project Extensions may be granted, upon written request, on a case-by-case basis if there are ***legitimate and verifiable reasons*** related to new construction or equipment availability. Project extensions will only be granted ***once*** for each project. Project extensions may be granted in a 90-day increment for non-residential projects only. To qualify for consideration, the 75% payment must be submitted to the appropriate mailbox or proof that application has been filed at New York State Education Department.

If approved, the extension will allow an extra 90 days to complete the project bringing the total to 300 days total from the original project approval date. Projects which exceed the total of either 210 or 300 days will be in jeopardy of cancellation.

For example, if a project is approved on Day 1, the latest date a 75% payment request can be submitted is Day 120. The final 25% payment request form must then be submitted by Day 210. Alternatively, a 100% payment request form can be submitted on Day 210. If the project is not completed as of Day 210, an Extension Request Form must be submitted, requesting an additional 90 days. If the request is granted, the final 25% payment request

form must be submitted by Day 300. Any projects which have not been completed by Day 300 are in jeopardy of being cancelled.

- To request a project extension in the *ConEd* or *Upstate* regions, the *Extension Request Form* must be emailed to: PVForms@nyserda.ny.gov
- To request a project extension in the PSEG Long Island region, the *Extension Request Form* must be emailed to: PVFormsLI@pseg.com

When submitting an *Extension Request Form* to request a project extension, the following subject line naming convention should be used:

90 Day Project Extension Non-Residential, PV (4 digit installer # + Application #) - Name of Customer

2.6.1 (90) Day Project Extensions for Residential Projects

Project extensions will only be granted once for each project. If approved, the extension will allow an extra 90 days to complete the project bringing the total to 300 days total.

All Project Extensions will be granted upon the sole discretion of NYSERDA upon written request, on a case-by-case basis if there are **legitimate and verifiable reasons** related to new construction or equipment availability only. No other requests will be considered. Proof must be submitted at time of extension request.

To *request* an extension, Contractor/Installer must submit and have approved by NYSERDA an *Extension Request Form*.

- To request a project extension in the *ConEd* or *Upstate* regions, the *Extension Request Form* must be emailed to: PVForms@nyserda.ny.gov
- To request a project extension in the PSEG Long Island region, the *Extension Request Form* must be emailed to: PVFormsLI@pseg.com

When submitting an *Extension Request Form* to request a project extension, the following subject line naming convention should be used:

90 Day Project Extension Residential, PV (4 digit installer # + Application #) - Name of Customer

2.7 Change Orders

Any system modifications or equipment changes **must be approved** by NYSERDA in writing before a system is installed. Submittal of a *Change Request Form* is required for all system modifications.

- For system modifications or equipment changes in the *ConEd* or *Upstate* regions, the *Change Request Form* must be emailed to: PVForms@nyserda.ny.gov

- For system modifications or equipment changes in the *PSEG Long Island* region, the *Change Request Form* must be emailed to: PVFormsLI@pseg.com

When submitting a *Change Request Form* to identify a system modifications or equipment changes, the following subject line naming convention should be used:

Change Order Form, *PV (4 digit installer # + Application #) - Name of Customer*

Failure to get NYSERDA approval on any and all modifications may result in revocation of the incentive reservation or nonpayment of the incentive.

Change order requests must state the reason for the change, the original equipment quantity and catalog numbers, the proposed equipment quantity and catalog numbers, changes in cost, changes in incentive (if applicable) amount and any changes in the array configuration or wiring. All proposed change requests must include the owner's signed acknowledgement of the proposed changes. Please see Section 2.11 for more information on acceptable signature formats.

Installers/Contractors will receive an e-mail approval for change orders resulting in an increase in the incentive amount. All other changes will be approved in Power Clerk. Please check Power Clerk before contacting NYSERDA regarding change order approvals.

Change orders resulting in an increase to system size will not result in an additional incentive in excess of the current incentive cap in effect at the time the change order is received.

When calculating the resulting incentive for a Change Order where the system capacity has decreased, NYSERDA will continue to honor the original incentive level calculated at the smaller system size.

NOTE: Effective on the launch date of the Affordable Solar additional incentive, projects that have already been approved through the standard incentive program, cannot submit change order requests for the purpose of receiving the additional incentive.

2.8 Expansion of Completed Systems

Installers may request additional incentives for the expansion of a Completed System. Incentives will not be paid for additional Watts beyond the caps described in Section 2.2 based on the combined aggregate capacity including the existing system. Each Project Application must be completed in its entirety and indicate that it is an expansion system, and all required documents under NY-Sun Incentive Program need to be entered into Power Clerk. PowerClerk may require information about the existing solar electric system such as system size, project number, associated PON, etc.

The Affordable Solar Residential Incentive cannot be applied to an expansion of completed system project.

2.9 Incentive payments

All solar electric system components must be delivered to the customer's site within 120 days of the original approval date in PowerClerk. Once all equipment has been delivered to the customer's site, you are authorized to request the 75% Incentive (**Two Payment Option**). To submit the completed Incentive Request Form for 75% payment, list the make and full model number of the modules and inverter(s) on the form and have it signed by the customer. Please see Section 2.11 for more information on acceptable signature formats.

Once the solar electric system is installed and interconnected, you are authorized to request the 25% incentive along with proof of interconnection and inspection. Submit the completed Incentive Request Form for 25% payment. The solar electric system must be installed within 90 days from the date the 75% incentive is approved by NYSERDA.

If electing the (**Single Payment Option**), you must complete the project within 210 days from approved date in Power Clerk.

Participating Contractors have two incentive payment options.

2.9.1 Two-Payment Option

Under this option, the Participating Contractor receives project incentives in two installments, which are tied to specific installation milestones. The initial incentive payment, totaling **75%** of the total approved incentive amount for the project will be paid after all approved system components have been delivered to a customer's site, all permits and approvals have been obtained, and the *Incentive Request Form*, with the section titled 'Items to be Included with 75% request' completed and submitted to NYSERDA for approval. The Customer and Contractor are required to sign this section of the Incentive Request Form. Please see Section 2.11 for more information on acceptable signature formats. Participating Contractors who choose this option must submit for the initial 75% incentive payment within 120 days of the project approval date.

The Participating Contractor will then have 90 days from the approval date of the initial 75% incentive payment to complete the project. The final project incentive payment, or the remaining **25%** of the total approved incentive amount, will be paid upon receipt by NYSERDA of the *Incentive Request Form*, with the section titled 'Items to be Included with 25% request' completed and submitted to NYSERDA for approval. The Customer and Contractor are required to sign this section of the Incentive Request Form. Please see Section 2.11 for more information on acceptable signature formats

To receive the final (25%) incentive payment, the *Incentive Request Form* must include a utility interconnect letter and one of the following:

- (a) Final inspection certificate issued by authorities having jurisdiction or
- (b) Digital photo of inspection sticker issued by authorities having jurisdiction or
- (c) Documentation of a successful inspection by NYSERDA or its representatives.

NYSERDA will consider alternate documentation verifying that the system has been completed and complies with all programmatic and relevant code requirements. A Participating Contractor must submit the alternate documentation to NYSERDA for approval prior to the submittal of an Incentive Request Form.

The final *Incentive Request Form* must also list of names for all primary crew members who worked on the installation.

2.9.2 Single-Payment Option

Under this option, the total incentive amount approved by NYSERDA will be paid upon submittal to and approval by, NYSERDA of an *Incentive Request Form* that has **both the ‘Items to be Included with 75% request’ and ‘Items to be Included with 25% request sections completed.** The Customer and Contractor are required to sign both sections of the Incentive Request Form. Please see Section 2.11 for more information on acceptable signature formats. Participating Contractors have 210 days from the date of **project approval (Date project is marked Approved in PowerClerk) to complete the system installation.**

To receive the full incentive payment, the *Incentive Request Form* must include a **utility interconnect letter and one of the following:**

- (a) Final inspection certificate issued by authorities having jurisdiction or
- (b) Digital photo of inspection sticker issued by authorities having jurisdiction or
- (c) Documentation of a successful inspection by NYSERDA or its representatives.

NYSERDA will consider alternate documentation verifying that the system has been completed and complies with all programmatic and relevant code requirements. A Participating Contractor must submit the alternate documentation to NYSERDA for approval prior to the submittal of an *Incentive Request Form*.

The final incentive Request Form must also list names for all primary crew members who worked on the installation.

Documentation for all applicable utility, state, city or town permits and other inspections and approvals must be provided as part of any incentive payment requests. If the local authority having jurisdiction does not require a permit for a solar electric system, you may substitute a copy of a letter or regulation from the local authority stating that no permit is required. The local authority may not require a permit for a "Solar" system but may still require an electrical permit for wiring, in this case the contractors shall provide a copy of the electrical permit.

NYSERDA retains the rights to inspect a percentage of jobs at panel delivery and or calling customers to verify construction. Please see Section 1.5.

Outside of New York City, many local authorities having jurisdiction for code enforcement often employ third party independent inspectors. At the time the project is inspected by the third party independent inspector an approval sticker is placed at the point of the work, indicating that the work is in compliance with applicable codes. NYSEDA will accept a photo of the onsite approval sticker (or the inspection certificate) and the utility interconnection acceptance letter as the final close out documentation that the system is grid connected and operational in order to process the final incentive payment.

For projects in New York City, the contractor is still required to meet all local requirements of New York City, Department of Buildings and FDNY, but will not be required to submit the final inspection certificate. NYSEDA will accept the **Con Edison interconnection acceptance letter as the final close out documentation** that the system is grid connected and operational in order to process the final incentive request payment and use the following subject line naming conventions.

Residential/Small Commercial <200kW: Incentive requests must be e-mailed to PVInvoices@nyserda.ny.gov

Residential/Small Commercial <200kW LI: Incentive requests must be e-mailed to PVInvoiceLI@pseg.com

75%, PV (4 digit installer # + Application #) - Name of Customer
(Example. 75% – 4000-29000, John Smith)

25%, PV (4 digit installer # + Application #) - Name of Customer
(Example. 25% – 4000-29000, John Smith)

100%, PV (4 digit installer # + Application #) - Name of Customer
(Example. 100% – 4000-29000, John Smith)

Each scanned incentive request should be named **using the same naming convention as outlined above and all documents must be scanned together as a single pdf.** Please do NOT include packing lists.

2.10 Incentive structure

Where necessary, NYSEDA reserves the right to structure incentive payments differently to accommodate unique situations as determined by NYSEDA.

2.11 Acceptable Signature Formats

Contractor and Customer signatures are required on all Program documents including the project application, change request form, extension request form and incentive request form. Any request for signature is required to be in hard copy form or a verifiable electronic signature as determined by NYSEDA.

2.12 Clipboard Audit

For Residential Projects: A Clipboard Energy Efficiency Audit must be performed. A clipboard energy audit consists of two components: an interview of the home/building owners to determine energy use habits and the age of the building, and an inspection of the building to identify energy saving opportunities. Certification that audit has been completed must be indicated on project application at time of submission.

The inspection component of the Clipboard Audit includes an assessment of the hard-wired lighting systems and free-standing light fixtures, appliance ages and whether they are ENERGY STAR® qualified, the presence of advanced power strips, existence of “vampire loads” related to consumer electronics and battery chargers, use of programmable thermostats or timers for air conditioners, age and condition of the doors and windows, and details on recent energy efficiency upgrades, such as installation of insulation. The Clipboard Audit should take no more than 60 minutes.

The Clipboard audit also includes a debriefing, during which the Contractor will review with the homeowner the results of the Clipboard Audit. At the end of the debriefing the installer will leave a copy of the Clipboard Audit Report (‘Report’) with the owner, which will include a description of the home. The contractor will also leave a list of Home Performance Contractors that could install more comprehensive energy efficiency measures, and informational brochures with details of utility or NYSERDA energy efficiency programs. , including EmPower and/or Assisted Home Performance with Energy Star, if the project is receiving the Affordable Solar incentive.

Customers will not be required to implement energy efficiency measures as a pre-requisite to participating in the program, except in the case of projects applying for the additional Affordable Solar residential incentive, as specified in Section 2.4.

2.13 Non Residential Energy Assessment

For Non-Residential Projects: Building owners are provided with information on ENERGY STAR’s Portfolio Manager Benchmarking Tool or other equivalent tool. If requested by the building owner, the Participating Contractor shall assist them to enter utility bill information into the Tool in order to produce a EUI (Energy Use Index) and, where applicable, an ENERGY STAR score. Customers will not be required to benchmark or implement energy efficiency measures as a pre-requisite to participating in the NY-Sun Incentive Program. Certification that energy assessment has been completed must be indicated on project application at time of submission.

2.14 System Losses

Project Applications shall indicate all potential solar electric system output losses (actual kilowatt hours or kWh generated after all equipment losses are applied) associated with shading, system orientation, tilt angle, etc. and must be analyzed and detailed by the Participating Contractor or Eligible Installer for each solar electric system. Solar electric systems that are shaded by trees, or that are installed on a flat roof, will have kWh outputs that will be less than optimal. All impacts on system output must be quantified and must be considered during the review of the Project Applications submitted by the Participating

Contractor. The incentive level for a project will be reduced in proportion to output losses when losses from factors such as shading and orientation exceed 20% of ideal kWh output as illustrated in table below.

Shading & Orientation Loss	Incentive Level
0% - 20%	100%
21%	79%
23%	77%
24%	76%
25%	75%
26%	74%
27%	73%
28%	72%
29%	71%
30%	70%

2.15 Coordination with other NYSERDA Programs

Solar electric projects receiving, or selected to receive awards under any other NYSERDA Program, PON, RFP or PSEG Long Island Program are not eligible to receive incentives under NY-Sun Incentive Program for those projects. Projects receiving, or selected to receive, awards under NYSERDA's or PSEG Long Island Programs may not be canceled and re-submitted under NY-Sun Incentive Program.

2.16 Financing

Residential customers existing homes of four units or less may be eligible to finance the purchase of their PV system through NYSERDA's Green Jobs/Green New York (GJGNY) loan program using either a Smart Energy Loan or On-Bill Recovery.

Customers may apply online or download an application at www.energyfinancesolutions.com.

To access the GJGNY loan Participating Contractors must register with the GJGNY loan servicer, Energy Finance Solutions (EFS). To register, Participating Contractors must complete and submit an *EFS Contractor Application Packet*. The Contractor Packet consists of the following documentation:

- EFS Contractor Application
- EFS Participation Agreement
- ACH Authorization Form (allows for electronic transfer of loan proceeds –optional)
- IRS form W-9
- Certificate of Insurance

Contractors should email a complete *EFS Contractor Application Packet* to: efs@energyfinancesolutions.com and expect a response within 5 days that will either:

- Notify Participating Contractors of Approval, or
- Request additional information

Small business and not-for-profit customers may be eligible to finance the purchase of their solar electric system through NYSERDA's low-interest small commercial financing made available by GJGNY. A customer who wishes to finance the purchase of their solar electric system will rely on the Installer/ Contractor to submit a Request for Financing to NYSERDA on their behalf. NYSERDA will review the Request for Financing and will provide the Customer with a letter approving or denying the eligibility of the solar electric system for low-interest small commercial financing made available by GJGNY. If the solar electric system is approved as eligible by NYSERDA, the Customer must submit the approval letter as part of their loan application to a Lender participating in NYSERDA's Small Commercial Energy Efficiency Program. If the Customer is approved for financing by the Lender, the Customer will receive the loan proceeds directly from the Lender. More information on NYSERDA's low-interest energy efficiency financing options for small business and not-for-profit customers can be found at www.nyserda.ny.gov/small-commercial-financing.

Contractors should email a complete *EFS Contractor Application Packet* to: efs@energyfinancesolutions.com and expect a response within 5 days that will either:

- Notify Participating Contractors of Approval, or
- Request additional information

2.16.1 Affordable Solar – GJGNY Third Party Owner Pilot (TPO Pilot)

NY-Sun has initiated a pilot program to determine the effectiveness of using GJGNY loans to prepay solar leases and PPAs for projects receiving the Affordable Solar residential added incentive. The TPO Pilot will run through 2016 and is limited to 300 projects.

TPO Pilot projects must meet all requirements for NY-Sun incentives, the Affordable Solar residential added incentive, GJGNY financing, as well as the following:

Be financed through a fully prepaid lease or PPA, with no outstanding financial obligation to the customer beyond the GJGNY loan.

- Provide annual customer cost savings of at least 50% per kWh for the lifetime of the GJGNY loan, as documented in the GJGNY Proforma tool.
- Not exceed a GJGNY loan size of \$6,000

TPO Pilot projects must be submitted by a NY-Sun Contractor that has been approved by NYSERDA for participation in GJGNY, and additionally approved to participate in the pilot.

To participate in the TPO Pilot, contractors may request approval by contacting NYSERDA and submitting for review customer contracts and related documents that demonstrate adherence to the requirements above. Please contact NYSERDA at AffordableSolar@nyserda.ny.gov to initiate the approval process.

2.16.2 Loan Disbursements for Residential GJGNY Projects

Please make sure the project has been approved by NYSERDA and that you have received your GJGNY award letter and that the loan information is correct (**we cannot change the loan amount after EFS has created the loan documents**). Contractors will need to verify that the approved system in Power Clerk has not changed. If there are changes, a change order must be submitted and approved prior to requesting GJGNY loan disbursements.

Send only the Electrical Inspection Certificate, using the following naming convention: Electrical Inspection, (4 digit installer # + Application #) - Name of Customer (Example. Electrical Inspection – 4000-29000, John Smith) and send to appropriate mail box.

PVForms@nyserda.ny.gov or PVFormsLI@pseq.com

Once received and approved, status will change from “Approved” to “Approved - GJGNY Payment” in Power Clerk.

Alternatively, Contractor may have the loan dispersed with the 25% or 100% incentive payment.

NOTE: Only Participating Contractors in the NY-Sun Incentive Program can submit for GJGNY financing.

2.17 Tax Credits

Customers may also be eligible for State and Federal tax credits. In addition customers may qualify for Real Property Tax Exemptions and Tax Abatement Programs, along with accelerated depreciation allowances. Always consult with an accountant or tax professional to determine eligibility.

New York City Residents may be eligible for the Real Property Tax Abatement Program. Contractors installing systems in New York City should consult with The New York City Department of Buildings for specific information.

Real Property Tax information can be found at New York State Department of Taxation & Finance Office of Real Property Tax Services website.

The Real Property Tax Exemption FORM RP487 may be found at the following:
http://www.tax.ny.gov/pdf/current_forms/orpts/rp487_fill_in.pdf

For a listing of jurisdictions that have opted out of the Real Property Tax exemption and Form RP487 does not apply may be found at the following:

<http://www.tax.ny.gov/research/property/legal/localop/487opt.htm>

3 SPECIFIC PROGRAM RULES

3.1 New Components

All components installed as part of an approved solar electric system must be new.

3.2 Qualified Solar Modules

All solar electric modules must be certified as meeting all applicable standards of the Institute of Electrical and Electronics Engineers (“IEEE”) and Underwriter’s Laboratory (“UL”) 1703, and detailed in the CEC eligible list found on PowerClerk. It is the manufacturer’s responsibility to update PowerClerk with the most up to date product information.

3.3 Inverters

All inverters must be certified as meeting all applicable standards of IEEE and UL and must meet the standards of the New York State Public Service Commission. See Link:

<http://www3.dps.ny.gov/W/PSCWeb.nsf/All/DCF68EFCA391AD6085257687006F396B?OpenDocument>

The CEC eligible list can be found in PowerClerk. It is the manufacturer’s responsibility to update PowerClerk with the most up to date product information.

3.4 Monitoring Equipment

Each solar electric system must have the ability to record system production in kWh. Recorded production output information in kWh must be provided to NYSERDA as required in other sections of these documents. The contractor has the option of providing this information from either a hard wired solar electric production meter, on line monitoring system, inverter display recorded production or other approved method.

When a hard wired meter is provided it shall have the capability of displaying: (a) instantaneous AC power, and (b) cumulative total AC energy production. Such meter(s) must have a minimum accuracy of 5% and a certificate of compliance from the manufacturer. Remanufactured utility-style meters are permitted if they are certified as calibrated to the applicable ANSI standards for electricity metering. The meter(s) must include numerical digital displays, or analog (“easy-read type”) in watts or kilowatts for power and kilowatt-hours or megawatt-hours for energy.

4 SYSTEM REQUIREMENTS

4.1 Grid Connection

To be eligible for Incentives, all solar electric systems must be grid-connected, end-use applications. End-use solar electric systems are those where the solar electric system is connected on the customer’s side of the electric meter, and electricity generated by the solar electric system offsets the customer's electricity purchases in accordance with current net metering laws and utility guidelines. In addition to net metering, upon approval by the

local participating utility, projects may benefit from remote net metering of multiple utility accounts. In all cases NYSERDA's incentive will be limited to the maximum system size cap of 25kW DC for residential installations and 200kW DC for commercial installations and may not to exceed 110% of the aggregated 12 month annual usage.

4.2 Approved System Design

Solar electric systems must be installed in accordance with the design and solar electric system components submitted in the application and approved by NYSERDA. Any change in solar electric system design from the approved design must be approved in writing by NYSERDA prior to installation of the solar electric system.

Solar electric systems that are not installed according to the design submitted to and approved by NYSERDA are **not** eligible to receive Program incentives. When significant changes are made a new 3-line diagram must be included with the change order. See Section 2.7 for details on submitting a Change Request Form.

4.3 Interconnection

The Participating Contractors and Eligible Installer are required to ensure that all approved solar electric systems have an appropriate interconnection agreement that meets New York State Standard Interconnection Requirements. The Participating Contractors and Eligible Installer must ensure that all approved systems are installed in compliance with that interconnection agreement.

4.4 Other Electrical Components

All other electrical components of each solar electric system, including, but not limited to, charge controllers, batteries, wiring, and metering equipment must be certified as meeting the requirements of all relevant national and New York State codes and standards.

4.5 Structural Requirements

The Participating Contractor and Eligible Installer are responsible for determining that a building is structurally able to support the addition of a solar electric system and that the installation of that solar electric system, including its wind load, does not over stress the structure and/or increase the load beyond acceptable limits as described in all relevant National and New York State codes and standards. NYSERDA encourages consulting with a Licensed Professional Engineer.

4.6 Compliance with Laws and Codes

All approved solar electric systems, system components, and installations must comply with any and all manufacturers' installation requirements, applicable laws, regulations, codes, licensing and permit requirements, including but not limited to, the New York State Environmental Quality Review (SEQR), the New York State Building Code, the National Electric Code (NEC), New York State's Standard Interconnection Requirements and all applicable State, city, town, or local ordinances or permit requirements.

For further information on NYC fire codes and the **NYC Fire Code Section 504.4**, please see links below:

Fire Code-Section FC504:

www.nyc.gov/html/fdny/html/firecode/index.shtml or <http://bit.ly/bpVFKD>

Fire Code-Frequently Asked Questions:

www.nyc.gov/html/fdny/html/firecode/faq.shtml or <http://bit.ly/a5FtjQ>

Application for a Variance to Fire Code FC504:

www.nyc.gov/html/fdny/pdf/fire_prevention/modification_variances.pdf or <http://bit.ly/cRLNjp>

4.7 Solar Electric System Warranty

The Participating Contractor must provide the purchaser of the solar electric system with a full five year transferable warranty. The warranty must cover all components of the generating system against breakdown or degradation in electrical output of more than ten percent from the original rated electrical output. The warranty shall cover the full costs, including labor, of repair or replacement of defective components or systems. The Participating Contractor is responsible for providing warranty coverage in a timely manner regardless of the level of support from the equipment manufacturer. Requests for warranty services must be responded to within 72 hours and repairs completed within 30 days. Batteries must be covered by a minimum two-year warranty. The Participating Contractor must provide the customer with information on any additional or extended warranties that may also be applicable. Refer to the Addendum for production guarantees applicable to Power Purchase Agreements and Leases.

5 REQUIRED APPLICATION DOCUMENTS

Each Application for Incentives must include a complete and accurate copy of each of the following. Contractors are strongly encouraged to review the sample documents provided on the NY-Sun website.

5.1 Project Application Form

All applications

The Eligible Installer or their Participating Contractor must submit all applications electronically using the PowerClerk database. The Project Application Form must be signed by the Contractor/Installer and Customer.

5.2 Site Map (Site Plan)

All applications

The site map must include:

- Location of all solar electric system components, including solar electric modules, inverter(s), disconnects, point of interconnection, and utility meter
- Layout of solar electric array, showing the tilt, azimuth, and number of solar electric modules on each roof face or sub-array
- Length of all wire runs over 100 feet
- Indication of which trees, if any, that will be removed prior to system installation
- Customer name and address

A sample site map is available on the NY-Sun website at <http://ny-sun.ny.gov/For-Installers/Contractor-Resources>.

5.3 Photos

All applications

There must be photos of the array location, from both the ground and roof level, and photos taken looking south. In addition, the application must include photos of the existing electrical service and the proposed location of the inverter. A single aerial photo does not meet this requirement.

A sample site map is available on the NY-Sun website at <http://ny-sun.ny.gov/For-Installers/Contractor-Resources>.

5.4 One or Three-Line Drawing

All applications

A legible electrical diagram is required, using standard symbols to clearly describe the solar electric system. Either a one or three line drawing is acceptable. The drawing must indicate:

- The quantity, conductor size, and insulation type of all energized (hot) conductors, neutral/grounded conductors, and ground conductors.
- Type and characteristics of all raceways, conduit, and enclosures.
- The configuration of solar electric array into electrical strings.
- The voltage and amperage ratings of all combiner boxes, overcurrent protection devices, switches, inverters, batteries, electrical panels and other relevant equipment as applicable. The rating of the main service panel and its main breaker must be given.
- The quantity, manufacturer, and model of the inverter and solar electric modules.
- Customer name and address.

Due to the potential for overloading, solar electric systems may not be connected to split bus panel boards (or load centers) by supply side or load side connection.

A sample wiring diagram and a list of design issues is available on the NY-Sun website at <http://ny-sun.ny.gov/For-Installers/Contractor-Resources>.

5.5 Shading Report and Estimate of Annual Output

All applications

The Shading Report and Estimate of Annual Output must be uploaded into PowerClerk as a single pdf file.

5.5.1 Shading Report

Contractor must submit a report describing the percentage of the available solar resource that the solar electric array will receive, accounting for losses from shading, array azimuth, and tilt. Projects with a total solar resource fraction (TSRF) below 80% will receive a reduced incentive, as described in Section 2.12.

Reports generated by Solmetric Suneye, Solar Pathfinder, Bright Harvest, Solar Census, Lightmile, Wiley ASSET, and other approved methods are acceptable.

In cases where trees or other obstructions must be removed, incentive payment will not be made until a new shading report has been submitted to and approved by NYSERDA.

When the solar electric system consists of multiple arrays with different azimuths, tilts, or shading profiles, it is necessary to run a shading report for each array and find the overall TSRF for the site by taking a weighted average. The contractor must clearly indicate the overall system TSRF on the shading report.

5.5.2 Estimate of Annual Output

A calculation of annual system output (in kWh) must be submitted, using industry-accepted tools, verifiable assumptions, and calculations. The estimate of annual output calculation must factor in system losses from array shading, azimuth, and tilt.

Certain tools, such as Solar Pathfinder, meet the requirements for both the shading report and the estimate of annual output.

Contractors can use the Solar Electric Calculator to generate and estimate of annual output report: <https://psegli.powerclerk.com/IncentiveCalculator/PSEGLI/IncentiveCalculator.aspx>

Contractors can also use the NREL PVWatts tool: <http://pvwatts.nrel.gov/>.

A sample shading report and estimate of annual output, including the weighted average calculation, are available on the NY-Sun website at <http://ny-sun.ny.gov/For-Installers/Contractor-Resources>.

5.6 Utility Bill

Non-residential applications only

The site address on the utility bill must match the installation site address on the Project Application Form. The customer's historic usage for the past twelve (12) months is

required. When 12 months of past billing does not exist, then provide those months that do exist along with supplemental calculations that demonstrate the anticipated yearly usage. For projects using remote net metering, contractors must submit 12 months of electric use data for both the host site and all satellite sites. For new construction (both residential and non-residential), information on anticipated electric usage is required. The Eligible Installer must submit detailed calculations for review.

5.7 Permits

All applications, may be submitted with Incentive Request Form

For Non-Residential applications, all necessary permits, approvals, certificates, must be submitted to appropriate agencies required for construction of the solar electric project that will receive incentive funding through this application. The Installer and/or Contractor are required to produce any/all documents immediately upon NYSEDA's request. A copy of the approved permit must be submitted with the initial invoice.

Residential customers may submit permits either with the application or the initial invoice. Invoices for solar electric systems without permits will be rejected. All permits must clearly reference installation of the approved solar electric system at the customer site. If permit(s) are not needed for installation, a signed letter from the Town Code Officer, or Authority Having Jurisdiction (AHJ) must be submitted stating that no building permit is required. An AHJ or 3rd party electrical inspection certificate will be required prior to payment of the final incentive.

5.8 Environmental Assessment

Applications over 4,000 square feet only

For all projects that include the installation of solar electric modules with total panel surface area exceeding 4,000 square feet, an environmental assessment form must be completed and the project must satisfy the New York State Environmental Quality Review Act (SEQRA). Installers must indicate if solar electric panel surface area exceeds 4,000 square feet. Information regarding SEQRA is available from the NYS DEC website at <http://www.dec.ny.gov/permits/357.html>.

It is the installer's responsibility to identify all agencies involved or that may be an "interested party" in the SEQRA process. You can find the SEQR form at:

<http://search.usa.gov/search?affiliate=nysdec&query=SEQR+short+form&Search.x=37&Search.y=10>

A sample SEQRA environmental assessment form is located on the NY-Sun website at <http://ny-sun.ny.gov/For-Installers/Contractor-Resources>.

5.9 Green Jobs-Green New York Documents

Applications using GJGNY Financing

For residential projects using Green Jobs-Green New York financing, the following documents must be submitted through Powerclerk with the project application:

- Loan Preapproval letter from EFS
- GJGNY Proforma worksheet

The customer name and address on the preapproval letter and Proforma worksheet must match the information in Powerclerk. The project cost, NYSERDA incentive, utility company, and customer contact information on the Proforma worksheet must exactly match the information in Powerclerk. The “Annual kWh Produced by system” amount on the Proforma must exactly match the output of the estimate of annual output report (Section 5.5).

The Contractor/Installer is required to enter into Powerclerk, the customer’s preferred Loan Type (On-bill or Smart Energy Loan), Loan Term (5, 10, or 15 years) and Loan Amount. These fields must match the customer’s desired loan selection information on the Proforma tool. If there is a discrepancy in this information, EFS cannot approve the loan.

A sample preapproval letter and Proforma worksheets are available on the NY-Sun website at <http://ny-sun.ny.gov/For-Installers/Contractor-Resources>.

5.10 Affordable Solar Residential Incentive Documents

Applications using Affordable Solar incentive

For residential projects applying for the additional Affordable Solar incentive, the following documents must be submitted through Powerclerk with the project application:

- Income eligibility letter from EFS (application available <http://ny-sun.ny.gov/Get-Solar/Affordable-Solar>)
- Affordable Solar Residential Project Screening Tool

5.11 Affordable Solar – GJGNY Third Party Owner Pilot Documents

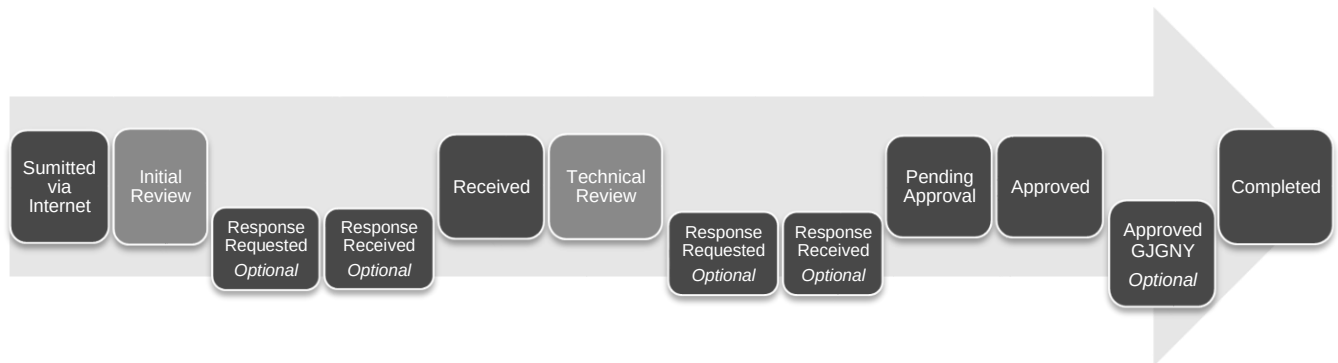
Applications participating in TPO Pilot

For projects participating in the TPO Pilot, the following must be submitted through Powerclerk with the project application:

- TPO Pilot Prepaid lease/PPA documentation – verifying that the lease or PPA has been fully prepaid with no further financial obligations by the customer to the third party owner of the system installation.
- GJGNY Proforma worksheet

6 APPLICATION PROCESS

The Application will progress through the following statuses in Powerclerk:



6.1.1 Initial Review and Technical Review:

Upon application submission, NYSERDA will perform an initial review of the application and required documents to ensure all documents have been completed correctly and determine if any information is missing. Once the application has been “Received”, the project will receive a full technical review to confirm that the project has been designed appropriately and meets all Program rules.

In instances where a Project Application has missing or inaccurate information or documents, as determined by the Initial Review or Technical Review, NYSERDA/PSEG will contact the Contractor/Installer requesting the missing information be provided and/or inaccurate information be corrected.

The application will be moved to “Response Requested” status in Powerclerk. **If the information is not provided or corrected within 10 calendar days of being requested by NYSERDA/PSEG, the Project Application will be denied.** The project can be re-submitted at a later date.

The application may be in “Response Requested” for a total of 20 calendar days maximum during the length of the project – 10 calendar days for the initial review and 10 calendar days for the technical review.

The Contractor/Installer must submit responses to: PVResponses@nyserda.ny.gov

7 QUALITY ASSURANCE AND COMPLIANCE

NYSERDA maintains the integrity of its NY-Sun Incentive Program through an independent Quality, Standards and Compliance (QSC) team which manages the quality assurance system for the NY-Sun Incentive Program. The quality assurance system has several components including review of qualifications and credentials, paperwork audits, establishment of program standards and a comprehensive field inspection. QA Field inspection includes verification of contracted scope of work, accuracy of site analysis, comparison of installation to submitted design drawings, general health and safety compliance, and the overall delivered quality of the solar electric installation.

NYSERDA QSC or its representatives may make a reasonable number of visits to the customer site before, during and/or after installation of a solar electric system.

Field QA inspections are conducted by a qualified independent third party, using a comprehensive field inspection QA checklist, or other QA standard as approved by NYSERDA.

Such visit(s) will be at a time convenient to the customer. The customer is given the option of having the Installer or contractor attend the field inspection. If the customer declines to have the Installer or contractor present at the time of the field inspection, no notice of scheduled field inspections is sent out to the Installer or contractor. If the customer accepts the attendance of the Installer and contractor, a notice of the scheduled field inspections will be sent to both parties with approximately one week-advance notice. Every effort will be made to accommodate the schedule of the Installer and contractor, but the customer's schedule and efficient scheduling of inspections take precedence.

7.1 Field Inspection of Completed Projects

NYSERDA selects specific "completed" projects for QA field inspection following a sampling protocol. The sampling protocol utilizes random sampling of completed units with sampling rates primarily based upon the current NY-Sun Incentive Program status of the Eligible Installer and "Contractor."

NYSERDA intends to conduct field inspections on 15% of units installed by full status installers and contractors. Probationary and Suspended status installers and contractors will be subjected to 30% inspection overall and up to 100% inspection on specific units for cause. Provisional installers and contractors will initially be subjected to up to 100% inspection and after demonstrated competency their inspection rate as determined by NYSERDA and generally not less than 15%

The purpose of the QA Field Inspection is to provide NYSERDA with an opportunity to evaluate the accuracy of the site analysis and design paperwork and to verify that the solar electric system was installed according to all NY-Sun Incentive Program requirements including selected health and safety and performance items and specific compliance items per applicable code.

Following the QA Field Inspection a QA Field Inspection report will be made available to the installer and contractor approximately 15 days after the inspection. The report will be made available to the owner upon submission of a request directly to NYSERDA.

NYSERDA may select any completed project at any point in the future for Field Inspection based upon customer complaints, warranty related issues or a review of the work done by an Installer or Contractor under status review or program disciplinary action.

QA field inspection for Long Island customers will be conducted on 100% of all completed projects according to performance and health and safety inspection protocol currently in place and administered by PSEG, and will transition to the statewide comprehensive QA field inspection protocol upon approval by NYSERDA.

7.1.1 Affordable Solar Residential Incentive Project QA

QA field inspection will also be conducted on a minimum of the first two (2) projects receiving the Affordable Solar residential incentive completed by any NY-Sun Participating Contractor, and a minimum of 5% of Affordable Solar incentive projects completed thereafter, will be subject to NYSERDA's onsite Quality Assurance inspection. In addition to standard NY-Sun onsite Quality Assurance inspection, Affordable Solar incentive projects will also be inspected for compliance with lighting and water efficiency requirements, as detailed in Section 2.4 and in the Affordable Solar Energy Efficiency Specifications found on the NY-Sun website at: <http://ny-sun.ny.gov/For-Installers/Contractor-Resources>.

7.2 Procedure for handling Non-Conformance and Corrective Action

The QA report generated from the field inspection will provide details of all evaluated elements of the project and list any non-conformances that were identified. The report will identify the overall score of the project and whether this result passes or fails program requirements.

Projects that have non-conformances related to critical (Health & Safety) or major (System Performance) attributes will automatically fail. Projects that have only non-conformances to minor or incidental attributes may pass or fail based upon their overall merits.

All non-conformances are expected to be addressed and corrected with regard to future work conducted in the NY-Sun Incentive Program. Acknowledgement and plans for preventing future problems may be requested with the report.

While some non-conformances cannot be corrected post installation, others can be remedied through corrective action to the documentation, incentive applied to the project or remediation of the installation or its components.

When NYSERDA seeks specific corrective action, a Corrective Action notice will be provided with the QA report. The Corrective Action notice must be either disputed within 15 days by contacting NYSERDA or remedied within 30 days. Sufficient evidence of the remediation must be provided to NYSERDA to document the completion of the required corrective action. NYSERDA may at its option conduct a field verification of the remediated installation.

NYSERDA retains the right to provide a copy of the QA report or specific information from the QA Field Inspection directly to the owner, all authorities having local jurisdiction or the interconnecting utility based upon health, safety and compliance concerns. In an emergency NYSERDA or its representatives may shut down the system. NYSERDA will notify the installer or contractor whenever it takes such action as soon as is practicable.

NYSERDA may, at NYSERDA's discretion, communicate by voice and/or written format with any solar electric system customer with respect to any matter relevant to a proposed or installed solar electric system. Such communications may be in reply to an inquiry from a customer or at NYSERDA's initiation.

7.3 Procedure for Prescriptive Probation and Disciplinary Action

When an installer or contractor either fails to consistently complete projects which pass NYSERDA's QA evaluation or fails to respond to or remedy Corrective Action notices, NYSERDA will review the contractor or installer status in the NY-Sun Incentive Program.

An installer or contractor may be moved to either a probation status in which specific results and a timeline for demonstrating those results will be prescribed and monitored or to a disciplinary status such as suspension or termination from the NY-Sun Incentive Program.

The complete details of the Participation Status and Review Process are stated in Section 1.5, above.

8 CONTRACTOR RESOURCES

Installers/Contractors are encouraged to utilize the Contractor Resources section of the NY-Sun website. Available documents include: Sample Program documents, instructional guides, technical fact sheets, QA checklists and inspection criteria and other documents pertaining to the solar electric Incentive Programs.

<http://ny-sun.ny.gov/For-Installers/Contractor-Resources>

9 SOLAR ANNOUNCEMENTS

Program announcements will be posted on the Solar Announcements section of the NY-Sun website. **Installers and Contractors are responsible for checking Solar Announcements periodically to ensure they are kept up to date on all Program related announcements and information.** Monthly conference call summaries will also be available on the Solar Announcements section.

<http://ny-sun.ny.gov/For-Installers/Solar-Announcements>

10 NYSERDA LOGO

10.1 Use of Logo

NYSERDA has very strict policies with regard to the use of NYSERDA logos. There are very few companies that are eligible to use a version of NYSERDA's logo on their marketing materials. For these purposes, we have established three distinctive attribution marks: Sponsored by NYSERDA, Supported by NYSERDA, and an Independent Contractor to NYSERDA. These attribution marks are distributed by NYSERDA and are evaluated on an individual basis for their appropriateness.

The Sponsored by NYSERDA logo is specifically for events that NYSERDA has provided funding to sponsor. The Supported by NYSERDA is intended specifically for companies that have received a contract award from NYSERDA, and NYSERDA is funding specific research, development, or deployment of an energy efficient technology, or service. The

Independent contractor logo is reserved for those contractors who have been tasked specifically with customer outreach on NYSERDA's behalf.

In the case of Solar Installers, ESCOs, participating builders, building contractors, and other organizations that have been qualified by NYSERDA, but not contracted, or funded by NYSERDA, it is not appropriate for them to use NYSERDA's logo on their organizations' website, or any marketing materials including business cards.

In the future, should you have a need for NYSERDA's logo, you may request one at the following website: <http://www.nyserda.ny.gov/About/Resources/Logo-Requests.aspx>

NYSERDA, a public benefit corporation, offers objective information and analysis, innovative programs, technical expertise, and support to help New Yorkers increase energy efficiency, save money, use renewable energy, and reduce reliance on fossil fuels. NYSERDA professionals work to protect the environment and create clean-energy jobs. NYSERDA has been developing partnerships to advance innovative energy solutions in New York State since 1975.

To learn more about NYSERDA's programs and funding opportunities, visit nyserda.ny.gov or follow us on Twitter, Facebook, YouTube, or Instagram.

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