NY-Sun

2020 – 2030 Operating Plan

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EFFECTIVE

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CASE 21-E-0629 - In the Matter of the Advancement of Distributed Solar.

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1 INTRODUCTION

This NY-Sun Operating Plan, hereinafter the "2022 Operating Plan", sets forth the goals and implementation strategies for the NY-Sun Program. The 2022 Operating Plan replaces the 2020 Operating Plan and any amendments thereto, and incorporates revisions to NY-Sun to achieve the goal of 10,000 Megawatt direct current (MWdc) of distributed photovoltaic (PV) deployment by 2030. The 10,000 MWdc goal includes the Climate Leadership and Community Protection Act (Climate Act) requirement of 6,000 MWdc of distributed solar to be installed by 2025. On May 14, 2020, the Public Service Commission issued an Order Extending and Expanding Distributed Solar Incentives[1] whereby the Commission authorized program funds needed to meet the requirement of 6,000 MWdc by 2025. On April 14, 2022, the Public Service Commission issued an Order Expanding the NY-Sun Program[2] to authorize additional funds needed to achieve the goal of 10,000 MWdc of distributed solar deployments by 2030.

Established in 2012, NY-Sun is a comprehensive initiative to develop a sustainable distributed solar industry in New York State. It consists of numerous components to be implemented by NYSERDA in collaboration with the New York Power Authority (NYPA) and the Long Island Power Authority (LIPA). Components of NY-Sun include a distributed PV incentive program, consumer education, technical assistance to local governments, training, reduction of soft costs of installation, and initiatives to improve access to solar electric energy for low to moderate income (LMI) customers, affordable housing, environmental justice communities and disadvantaged communities. The 2022 Operating Plan will describe these components funded through the Clean Energy Fund (CEF), with additional information at a less detailed level for initiatives pertinent to NY-Sun but funded via other sources (e.g., the Regional Greenhouse Gas Initiative (RGGI)). Further information regarding NY-Sun can be found on the NY-Sun website (http://ny-sun.ny.gov/).

1.1 Background

In April of 2014 the Commission issued an Order[3] whereby the Commission authorized NYSERDA to allocate up to $960.556 million to support, implement and administer eligible PV programs during the term 2016 through 2023; approved initial design criteria for the Megawatt Block (MW Block) program; and authorized NYSERDA to use $13 million of program funds to advance participation by LMI customers. Subsequently, in January 2016, the Commission authorized the CEF Framework and identified NY-Sun to be one of the four main portfolios of activity within the CEF, and authorized the collections of funds as allocated by the April 2014 Order.[4]

In 2019, the Climate Act set a requirement for New York to achieve a carbon-free electricity system by 2040 and reduce greenhouse gas emissions 85% below 1990 levels by 2050. The implementation of the Climate Act is purposed to target investments to benefit disadvantaged communities, create new jobs, improve public health and quality of life and provide all New Yorkers with more robust clean energy choices. In advancing the clean energy investments, the Climate Act codified commitment to install 6,000 MWdc of distributed solar by 2025.

In May of 2020 the Commission issued an Order (May 2020 Order) in response to a November 25, 2019 NYSERDA Petition (November 2019 Petition) by which NYSERDA requested approval of an additional

[1] Case 19-E-0735, Proceeding on Motion of New York State Energy Research and Development Authority Requesting Additional NY-Sun Program Funding and Extension of Program Through 2025, Order Extending and Expanding Distributed Solar Incentives (issued and effective May 14, 2020) (May 2020 Order).
[2] Case 21-E-0629, In the Matter of the Advancement of Distributed Solar, Order Expanding NY-Sun Program (issued and effective April 14, 2022) (April 2022 Order).
[3] Case 03-E-0188, Proceeding on Motion of the Commission Regarding a Retail Renewable Portfolio Standard, Order Authorizing Funding and Implementation of the Solar Photovoltaic MW Block Programs (issued and effective April 24, 2014) (April 2014 Order).
[4] Case 14-M-0094, Proceeding on Motion of the Commission to Consider a Clean Energy Fund, Order Authorizing the Clean Energy Fund (issued and effective January 21, 2016).

$573 million in program funds to achieve the expanded goal of 6,000 MWdc by 2025. In the May 2020 Order, the Commission authorized NYSERDA to allocate these funds, approved modifications to the MW Block program, and directed NYSERDA to dedicate $135 million to projects benefitting LMI customers, affordable housing, environmental justice communities, and disadvantaged communities.

With the 6,000 MW goal nearly achieved, on December 17, 2021, NYSERDA and the New York State Department of Public Service Staff jointly filed the Distributed Solar Roadmap. The April 2022 Order adopted the Solar Roadmap recommendations including extending NY-Sun's goal from 6,000 MWdc of distributed solar by 2025 to 10,000 MWdc by 2030. It authorized an additional $1,474 million in program funding to support the deployment of the incremental 4,000 MWdc. The Order included funding for additional base incentives for the Upstate Commercial/Industrial block design, and for residential and nonresidential base incentives in Con Edison territory, as well as funding for project incentive adders (including the Community Adder), and over $251 million to expand the Solar Energy Equity Framework (SEEF). The Order also instituted a new prevailing wage requirement for projects 1 Megawatt alternating current (MWac) or larger, and authorized $239 million in incentive funds to enable an industry transition to prevailing wage.

The MW Block program is administered by NYSERDA as a single, coordinated statewide program, and is offered to customers in all relevant sectors on a standard-offer, first-come-first served basis. Funding for the program will be provided through the CEF surcharge for customers of the investor-owned utilities who pay the CEF surcharge on their utility bill. Funding for the program for customers that do not pay the CEF surcharge, including customers served by NYPA and municipal utilities, will be provided by RGGI funds, subject to availability. Customers of LIPA were eligible for MW Block program funding for residential and non-residential projects up to 750 kWdc prior to the commitment of available RGGI funds in 2018. Customers in LIPA remain eligible for certain incentives benefitting LMI households, regulated affordable housing, and disadvantaged communities until available RGGI funds are fully committed.

1.2 PV + Energy Storage

On December 13, 2018, the Commission established a statewide energy storage goal to install up to 3,000 MW of qualified energy storage systems by 2030, with an interim objective of deploying 1,500 MW by 2025. In the Energy Storage Order,[5] the Commission authorized additional funding of $310 million for an Energy Storage Market Acceleration Bridge Incentive, administered by NYSERDA. Previously approved NY-Sun CEF funds included $40 million for storage paired with PV systems and $55 million in energy storage incentive funds for projects located on Long Island. NYSERDA describes how it administers the energy storage incentives through the Retail Energy Storage Incentive Program and the Bulk Energy Storage Incentive Program in its previously approved implementation plan.[6]

As stated in the State of Storage Report,[7] the technology's declining costs and ability to pair storage with PV as well as capturing additional revenue streams, indicates energy storage is increasingly being used to augment the existing pipeline of distributed PV projects being developed in the State. Currently, 75% of projects in the program are paired with PV and predominantly use a Community Distributed Generation (CDG) configuration. On Long Island, residential storage systems are increasingly being paired with PV, and can help LIPA relieve grid demands during peak summer days. On July 3, 2019, incentives were made available for grid-connected residential solar projects that are paired with an energy storage system in the Long Island region. A second block for this incentive was introduced on September 30, 2021. Residential

[5] Case 18-E-0130, In the Matter of Energy Storage Deployment Program, Order Establishing Energy Storage Goal and Deployment Policy (issued December 18, 2018) (Energy Storage Order).
http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId=%7bFDE2C318-277F-4701-B7D6-C70FCE0C6266%7d
[6] Case 18-E-0130, In the Matter of Energy Storage Deployment Program, Energy Storage Market Acceleration Incentives Implementation Plan, (Revised January 27, 2020).
http://documents.dps.ny.gov/public/MatterManagement/CaseMaster.aspx?MatterSeq=55960
[7] Case 18-E-0130, In the Matter of Energy Storage Deployment Program, First Annual State of Storage Report, (April 1, 2020).
http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId=%7bEE291D9C-F169-4B37-97EB-7182C5F062BF%7d

solar-plus-storage projects are currently required to participate in PSEG Long Island's Dynamic Load Management (DLM) Program.

Energy storage soft cost reduction activities are coordinated with the NY-Sun Program as described in the Reducing Barriers to Distributed Energy Storage Investment Plan[8] as well as the Clean Energy Siting and Soft Cost Reduction initiative as described in the Multi-Sector Solutions Investment plan [9]filed under the CEF. These Plans include resources for reducing soft costs associated with customer or site identification, permitting and siting, interconnection, design and engineering, and revenue risk that results in higher financing costs. Technical assistance resources are also available, in coordination with NY-Sun's Solar Energy Equity Framework (Section 3), for projects serving LMI customers, affordable housing providers, and other facilities in disadvantaged communities that seek to deploy energy storage in conjunction with other on-site clean generation, such as PV.

In January 2022, as part of her 2022 State of the State proposals, Governor Kathy Hochul directed DPS and NYSERDA to update New York's Energy Storage Roadmap towards achieving a target of at least 6,000 MW of energy storage by 2030. The updated Energy Storage Roadmap will identify needed market reforms and cost-effective procurement mechanisms to capture the full benefits of energy storage, and outline ways to incentivize the private market to produce sufficient storage capacity to enable the realization of New York's climate energy targets, including the 10,000 MWdc by 2030 distributed solar goal. In addition to standalone storage applications, the updated Energy Storage Roadmap will also consider use cases and market segments where storage is paired with solar, including distributed (residential and retail) solar projects.

1.3 Solar Energy Equity Framework

The May 2020 Order authorized NYSERDA's proposal for the Solar Energy Equity Framework (SEEF), an expansion of the NY-Sun activities focused on low-to-moderate income (LMI) customers, affordable housing, environmental justice communities, and disadvantaged communities, and dedicated $135 million exclusively for the SEEF. This SEEF funding is complemented by no less than $65 million from base MW Block incentives. The $135 million funding is in addition to the uncommitted portion of the original $13 million authorized by the April 2014 Order to increase solar access for LMI customers.

The April 2022 Order further expanded the SEEF as a means for NYSERDA to meet the Climate Act mandate that disadvantaged communities receive at least 35 percent, with the goal of 40 percent, of overall benefits of spending on clean energy. The April 2022 Order directed that no less than 1,600 MWdc (40% of the incremental 4,000 MWdc needed to reach the new 10,000 MWdc by 2030 target) be included in the SEEF, with an additional $251.8 million in dedicated funding authorized to meet this requirement. NYSERDA will leverage RGGI funding, to the extent available, to serve eligible customers that do not pay into CEF surcharge.

The April 2022 Order directed that, as proposed in the Roadmap, at least half of that 40% target must be focused on projects that provide LMI residential customers with direct, guaranteed bill savings, such as residential rooftop solar and CDG projects serving individual LMI customers, or CDG projects serving LMI customers through an opt-out community solar program. The Order emphasized that the SEEF, while primarily focused on higher incentive levels and/or capacity targets for projects that provide direct savings to LMI customers and disadvantaged communities, should also provide technical assistance, predevelopment funding, and other programmatic support for community solar projects serving disadvantaged communities. The full range of incentives and other strategies included in the SEEF are

[8] Matter 16-00681, In the Matter of the Clean Energy Fund Investment Plan, Clean Energy Fund Investment Plan: Energy Storage Chapter, (Revised May 7, 2021). This chapter includes the Reducing Barriers to Deploying Distributed Energy Storage initiative as well as the Solar Plus Energy Storage initiative. https://www.nyserda.ny.gov/-/media/Files/About/Clean-Energy-Fund/CEF-Energy-Storage.pdf

[9] Matter 16-00681, In the Matter of the Clean Energy Fund Investment Plan, Clean Energy Fund Investment Plan: Multi-Sector Solutions, (Revised September 17, 2021). This chapter includes the Clean Energy and Soft Cost Reduction initiative. https://www.nyserda.ny.gov/-/media/Files/About/Clean-Energy-Fund/CEF-Multi-Sector-Solutions-chapter.pdf

described in more detail in Section 2.

As part of the ongoing implementation of the NY-Sun program, NYSERDA will continue to work closely with interested stakeholders to maximize the SEEF's reach and effectiveness and ensure that the authorized SEEF budget is used in a thoughtful and comprehensive manner to benefit disadvantaged communities. In addition, upon the Climate Justice Working Group's finalization of the criteria defining "disadvantaged communities," NYSERDA and DPS Staff will review the SEEF and, as necessary, file with the Commission any adjustments to the program design and budget.

1.4 Agricultural Protection and Land Use

Farmland protection and the maintenance of a vibrant agricultural economy are important State policy goals. New York State recognizes the importance of collaboration between the agriculture and clean energy sectors as a critical part of the State's overall decarbonization strategy. NYSERDA works in close coordination with the Department of Agriculture and Markets (NYSAGM) and other stakeholders to responsibly support the development of renewable energy projects.

Program requirements, further detailed in the Program Manual, for Commercial/Industrial projects that are proposed within a State-Certified Agricultural District include:

- Compliance with New York State Agriculture and Markets Law;
- Submission of appropriate notices to NYSAGM and local Agricultural and Farmland Protection boards;
- Execution of a copy of the Guidelines for Solar Energy Projects – Construction Mitigation for Agricultural Lands document published by NYSAGM;
- Mitigation Fund payment or commitment to other mitigation measures where impacted agricultural soils exceed 30 acres.

The State's Agricultural Technical Working Group (A-TWG), an independent advisory body convened by NYSERDA early in 2021, will continue to serve as the primary forum for stakeholder and interagency collaboration on policies and practices pertaining to distributed solar and agriculture. Guidance provided by the A-TWG and the New York State Farmland Protection Working Group will continue to inform agricultural preservation and mitigation requirements and practices going forward. NYSERDA also continues to provide and expand resources to landowners and local governments through the New York State Solar Guidebook and provide direct technical assistance.

2 MW BLOCK PROGRAM

The MW Block program provides certainty and transparency regarding incentive levels, accounts for regional market differences, and provides a clear signal to the industry that New York intends to ramp down and eliminate cash incentives in a reasonable timeframe. It allows for the early elimination of incentives in regions where market conditions, such as market penetration, demand, and cost-effectiveness, support it.

This 2022 Operating Plan maintains the structure of the existing MW Block program. As authorized by the April 2022 Order, NYSERDA will add 3,393 MWdc of new capacity to the MW block structure (see Table 2-1). The new blocks, coupled with the previously deployed blocks and distributed PV projects built without NY-Sun incentives, will result in a statewide total of 10,000 MWdc by 2030.

2.1 MW Block Incentives

The MW Block program segments the New York State electrical utility service market into three separate regions: Con Edison ("Con Edison region"), Orange & Rockland, Central Hudson Gas & Electric, New York State Gas & Electric, Rochester Gas & Electric, and National Grid ("Upstate region"), and PSEG Long Island ("Long Island region"). The program further segments the market into three sectors based on system size measured in Watts direct current (DC): residential, nonresidential, and commercial/industrial. These segments are organized into the MW Block structure, consisting of declining incentive blocks. The complete MW Block incentive structure is detailed in the Appendix and can be monitored in real time though the online MW Block dashboard[10].

The program offers capacity-based (fixed rate incentives per Watt DC) incentives for residential projects up to 25 kWdc and nonresidential projects up to 750 kWdc for the Upstate region and up to 7.5 MWdc for the Con Edison region. It offers performance-based incentives (not-to-exceed amount per Watt DC) for commercial/industrial (C/I) projects up to 7.5 MWdc in the Upstate region. Residential and nonresidential incentives were offered in the Long Island region until RGGI funding was fully committed. The Long Island residential sector was fully subscribed on April 16, 2016 with an installed capacity of 122MW. The Long Island nonresidential block was fully subscribed on February 13, 2019 with an installed capacity of 84 MW.

Incentive applications are submitted through a central database managed by NYSERDA. Information required in the application includes the project's address and electric utility service provider, which enables NYSERDA to apply the appropriate funding source (RGGI or CEF). As required in the April 2014 Order, NYSERDA must identify the RGGI funds used to support the MW Block Program, distinguishing such funds from CEF funds also being used to support the program.

NYSERDA tracks the status of each MW block on the NY-Sun website, which includes the date that each block was initiated, the incentive level for each block, and the date a block closes. Through the MW Block dashboard, developers can monitor block status and access real-time information regarding the likely timing for incentive changes. Each region and system size category are tracked separately, and regional demand will drive the rate at which each block is subscribed. NYSERDA will report the number of MW installed in each block in the NY-Sun Annual Report which documents the number of MW installed. Blocks can differ from the original allocation because of cancellations, project budgetary re-allocation or project adjustments once a block is closed. NYSERDA also presents online Solar Data Maps showing the number of PV projects and installed capacity statewide and provides downloadable data on all NYSERDA-funded PV projects through Open NY.

As stated in Section 1.1, NY-Sun provides RGGI incentives for PV installations for customers that do not pay into the CEF surcharge and are not customers of LIPA (e.g., customers of NYPA and municipal

[10] https://www.nyserda.ny.gov/All-Programs/Programs/NY-Sun/Contractors/How-the-Dashboard-Works.

utilities). In order to receive the RGGI incentive, these customers are served on a first-come, first-served basis, subject to availability of funds and the capacity associated with a project will be counted toward the appropriate MW block, based on sector and region. As a result, any CEF funds that remain uncommitted in a block after the block has been fully subscribed, will be reallocated as described in Section 2.5.

To encourage the installation of cost-effective PV systems and to make PV available to a greater number of customers, NYSERDA will facilitate access to financing to further stimulate the growth of the industry. For example, customers can also access financing for PV systems through Green Jobs-Green New York to the extent that funding is available.[11] PV developers are encouraged to explore financing options through the New York Green Bank[12] in coordination with other investors and financial institutions. NYSERDA also provides consumer education on the characteristics of PV systems, community solar subscriptions vs. rooftop installation options, and information on the variety of purchase and leasing options in the market. Such activities help to reduce the "soft costs," (non-installation costs), of PV projects.

The program requires that an electric energy efficiency audit be completed and encourages energy efficiency implementation as another approach to cost-effectively meet the energy saving needs of households and businesses. Residential members of CDG projects are not required to complete the electric energy efficiency audit.

Table 2-1 shows the status of the existing MW Block program as of April 2022, as well as the breakdown of the new capacity authorized by the April 2022 Order. The column *Existing MW Block Capacity* includes completed and in-development projects in the existing MW Block structure, as well as any remaining open block capacity. MW capacity funded outside of NYSERDA's MW Block structure, or not receiving a NYSERDA incentive, is not included on this table. Prior to the April 2022 Order, the Con Edison nonresidential blocks were not divided into the three size categories listed below.

Table 2-1. Summary of MW Blocks

Region	Sector	Size	Existing MW Block Capacity	New block capacity	Total
Upstate	Residential	Up to 25 kWdc	527	-	527
	Nonresidential	Up to 750 kWdc	279	-	279
	Commercial/ Industrial	750k Wdc to 7.5 MWdc	3,270	2,943	6,213
Con Ed	Residential	Up to 25 kWdc	291	150	441

[11] Public Authorities Law, Title 9-A, sections 1890-1899-a, "Green Jobs-Green New York Act of 2009."

[12] Case 13-M-0412, Order Establishing NY Green Bank and Providing Initial Capitalization (issued and effective December 19, 2013).

	Nonresidential	200kW dc and smaller	435	50	735
		Between 200 kWdc and 1MW dc		100	
		1MW dc and larger		150	
Long Island	Residential	Up to 25 kWdc	100	-	100
	Nonresidential	Up to 750 kWdc	68	-	68
Total			**4,970**	**3,393**	**8,363**[13]

2.2 Requirements for Prevailing Wage or Project Labor Agreement

For solar projects 1 MWac and greater in capacity, the April 2022 Order requires NY-Sun incentive eligibility to be conditioned on developers paying prevailing wage or entering into project labor agreements for construction activities associated with project development and installation. This requirement will only apply to projects that submit their initial utility interconnection application after April 14, 2022.

Projects subject to the prevailing wage requirement set in the April 2022 Order are eligible to receive an additional NY-Sun incentive adder. For Upstate Commercial/Industrial projects that are 1 MWac and greater in capacity, the adder is $0.125 per Watt DC, and will be paid out in the same manner as the base incentive: 50% at project completion, 25% at first anniversary of completion, and 25% at second anniversary of completion. For Con Edison Nonresidential projects that are 1 MWac and greater in capacity, the adder is $0.20 per Watt DC, and will be paid out in the same manner as the base incentive: 100% payment at project completion.

Projects that are not subject to the prevailing wage requirement set in the April 2022 Order are not eligible for the adder. Ineligible projects include those that submitted their initial utility interconnection application prior to April 14, 2022, as well as any project under 1 MWac in capacity, regardless of any other statutory or contractual requirement placed on the project related to prevailing wage.

The NY-Sun program participation agreement will be updated to require the covered solar projects to pay prevailing wage to all laborers, workmen and mechanics, within the meaning of NYS Labor Law Article 8,

[13] The balance of the 10,000 MWdc target will be met by projects that do not receive NY-Sun MW Block funding, including those supported by previous NY-Sun programs, and those receiving funding from LIPA.

performing on-site construction activities whether through long-term or short-term employment and when completed prior to the project in-service date. The prevailing wage requirement will apply to direct employees of the developer and of developer's subcontractor(s).

The applicable Prevailing Wage in the area where the eligible solar facility will be situated, erected and used, will be as published by the NYS Department of Labor[14] or the equivalent Prevailing Wage requirements of the jurisdiction where the covered solar facility is located. While the program participation agreement will refer to the NYS Labor Law Article 8, such reference will be limited to establish the amount of the Prevailing Wage required to be paid pursuant to the April 2022 Order and the categories of persons required to be paid such Prevailing Wage. The NYS Labor Law Article 8 shall not apply to the program participation agreement as a matter of law; however, the prevailing wage requirement established thereunder will apply to the participation agreement as a matter of policy.

Construction activities within the scope of this requirement include, but are not limited to, the clearing, grubbing, grading, staging, installation, erection and placement of the facility, the energy storage component of the facility, electrical interconnection, as well as start-up and commissioning of the facility during the construction period. The construction period will begin on the first day of construction activities and end on the day the covered project achieves commercial operation. Compliance requirements, including those pertaining to payroll and time record-keeping and proof of payment of wages, shall apply pursuant to NYS Labor Law Article 8. NYSERDA will require contractors to submit an addendum or update to the program participation agreement prior to NYSERDA's approval of the first covered project submitted by each contractor. NYSERDA will enforce this contractual requirement pursuant to the NY-Sun program implementation rules, and may request documentation from the contractor demonstrating compliance with this requirement.

2.3 MW Block Incentive Structure

Details of the complete MW Block incentive structure are in the Appendix. Changes to the MW Block structure in this 2022 Operating Plan are described in the tables below. There are no changes to the Long Island or Upstate nonresidential blocks and the project capacity ranges and total capacity available for these blocks can be found in Table 2-2, with individual block sizes and incentive rates found in the Appendix and in the online MW Block dashboard.

2.3.1 Upstate Commercial/Industrial MW Block

The Upstate Commercial/Industrial Block Structure includes PV systems in the Upstate region ranging from 750 kWdc to 7.5 MWdc. Blocks 1-17 were fully committed as of the filing of this Operating Plan. NYSERDA expects that Block 18 will be allocated quickly, due to the prolonged absence of a MW Block offering in this market segment. In the event that more complete and eligible applications are received within the first 14 calendar days of the opening of Block 18 than the total available capacity, NYSERDA will re-order all complete and eligible applications by actual date of full utility interconnection payment, and then by actual date of 25% interconnection payment for projects that have not yet made full payment, and award Block 18 incentives in that order. In the event a project is not required to make a utility upgrade payment, the date of the utility-approved interconnection agreement will be used in place of the date of the 100% payment. Eligible projects not awarded Block 18 incentives will be awarded Block 19 incentives. NYSERDA will announce the exact capacity and incentive rates of later blocks based on continual analysis of market conditions and project economics.

Projects that have previously applied for or received a Inclusive Community Solar Adder or Brownfield/Landfill adder award but no base MW Block incentive will be able to apply for the base incentive in Block 18 or later blocks. Additionally, Community Distributed Generation solar projects that have

[14] For NYS DOL Prevailing Wage Schedules, please visit: https://labor.ny.gov/workerprotection/publicwork/PWContents.shtm

previously received a Brownfield/Landfill adder award but not Community Adder will be able to apply for the expanded Community Adder offerings authorized in the April 2022 Order (see Section 2.4.2), subject to regular program rules and eligibility requirements. Projects that have previously received a Community Adder but no base MW Block incentive will be able to: (i) retain the Community Adder with no base incentive; or (ii) cancel the Community Adder and apply for the new base incentive and Community Adder. Projects which secured a base MW Block incentive prior to the issuance of the Distributed Solar Roadmap will not be able to apply for new incentive adders.

Table 2-3. Changes to the Upstate Commercial/Industrial MW Block Structure

Block	New MW	Incentive/Watt
18	800	$0.17
19	At least 350	$0.15
20+	TBD	TBD

2.3.2 Con Edison Nonresidential MW Block

NYSERDA is adding 300 MWdc of new capacity to the Con Edison Nonresidential Block structure. While the Block had previously been open to all project sizes up to 7.5 MWdc, NYSERDA is reformatting the block design, so that there will be three distinct Con Edison Nonresidential block structures: one for projects under 200kWdc, a second for projects greater than or equal to 200kWdc but less than or equal to 1MWdc, and a third for projects greater than 1MWdc. This division of the block structure will preserve capacity carveouts for a variety of project types, while allowing "right sizing" of the incentive rates based on project capacity. Remaining capacity in Block 10 and Block 11 has been cancelled and incorporated into the new block design per the April 2022 Order.

Nonresidential projects in the Con Edison service territory that applied to the NY-Sun program subsequent to the filing of the Distributed Solar Roadmap, as well as Nonresidential projects that submitted applications to Block 10 before the Distributed Solar Roadmap's filing but were not previously awarded the Community Credit, may opt into the new Nonresidential incentive blocks, subject to regular program rules and eligibility requirements.

Table 2-4. Changes to the Con Edison Nonresidential MW Block Structure

Block	New MW	Incentive/Watt
12: Projects Under 200kW	30	$1.20
12: Projects Between 200kW – 1MW	40	$1.00
12: Projects Greater than 1MW	85	$0.50

13+	TBD	TBD

2.4 Incentive Adders for the MW Block Program

As authorized by the May 2020 and April 2022 Orders, NYSERDA offers a set of incentive adders to support PV deployment in specific market segments. Incentive adders are an effective way to encourage projects that contribute to the NY-Sun capacity goals while also meeting other policy or market objectives, such as opening new types of project sites for development. To better accommodate changing market conditions and for efficient administration of the program, NYSERDA may shift funds between different incentive adder offerings, and between adder and base incentives, following the procedure described in section 2.1.5 of this 2022 Operating Plan.

2.4.1 Parking/Rooftop Canopy Adder and Landfill/Brownfield Adder

NYSERDA offers funding for the following incentive adders:

Parking and Rooftop Canopy Adder

-
- Available for Con Edison nonresidential projects only;
- Incentive adder rate will be $.20 per Watt DC
- Rooftop adder is applied up to the first 25 kWdc of an eligible project;
- Parking Canopy adder may be applied to entire eligible project capacity.

Landfill/Brownfield Adder

- Available for all eligible nonresidential and commercial/industrial projects;
- Incentive adder rate of $0.15 per Watt DC for all eligible capacity.

2.4.2 Community Adder

As authorized in the May 2020 Order and the April 2019 Order Regarding Value Stack Compensation[8], NYSERDA offers the "Community Adder" for CDG solar projects in utility territories where the Community Credit and Market Transition allocations have been fully committed. The original Community Adder , which has been fully subscribed, is shown in Table 7-9 in the Appendix.

The April 2022 Order authorized additional Community Adder capacity, which is described in Table 2-5. NYSERDA will maintain an online dashboard displaying the Community Adder rate(s) and remaining capacity in each block. NYSERDA may adjust Community Adder rates due to changing market conditions as described in Section 2.5. Projects must allocate no less than 60% of their total generation (inclusive of any generation offsetting host meter demand) to mass market CDG subscribers.

Table 2-5. Community Adder Authorized in April 2022 Order: Total Budget of $186M

Adder	Available For	Total MWdc Available	Incentive Rate per Watt DC	Budget in $M
Upstate CA Tranche 4	National Grid, NYSEG, Orange and Rockland, Central Hudson, Rochester Gas & Electric	800 MWdc	$0.07/Watt	$144M split across multiple tranches

Upstate CA Tranche 5+	National Grid, NYSEG, Orange and Rockland, Central Hudson, Rochester Gas & Electric	1,260 MWdc	TBD	
Con Edison Tranche 1	Con Edison	100 MWdc	$0.20/Watt	$42M split across multiple tranches
Con Edison Tranche 2-3	Con Edison	110 MWdc	TBD	

2.4.3 Inclusive Community Solar Adder

The Inclusive Community Solar Adder (ICSA) provides added incentives for CDG solar projects serving low- to moderate income (LMI) subscribers, affordable housing, and certain non-profit and public facilities serving disadvantaged communities (DACs).

The goal of the ICSA is to increase access to community solar and resulting electric bill savings for LMI households and to reduce operating costs for affordable housing and nonprofit entities serving DACs. Eligible projects may receive the ICSA in addition to any NY-Sun base incentive or adders for which they are eligible, with the exception of the Multifamily Affordable Housing Adder. The ICSA is available for nonresidential or commercial/industrial CDG projects.

The ICSA was initially offered beginning in July 2021 and over 400 MWdc of projects have received ICSA incentives as of the filing of this Operating Plan. The April 2022 Order directed the continuation of the ICSA. As of the filing of this Operating Plan, NYSERDA is making revisions to the program design based on the parameters set by the April 2022 Order, program experience to date, and ongoing stakeholder engagement. New ICSA capacity is expected to be available by Fall 2022, and this Operating Plan will be updated accordingly. Projects that have previously secured Community Credit status will be eligible to apply for the new ICSA capacity, but will receive the previous applicable ICSA rates of $.05/Watt DC for Upstate and $.10/Watt DC for Con Edison.

2.4.4 Multifamily Affordable Housing Adder Incentive

The Multifamily Affordable Housing Adder Incentive is available to nonresidential projects sited at and serving regulated multifamily affordable housing properties in the Con Edison, Upstate, and Long Island regions. Eligible projects in the Upstate and Long Island regions will receive a total incentive of $1.00 per Watt DC for the first 200 kWdc of the project: the applicable nonresidential base incentive plus an added incentive. Project capacity above 200 kWdc will receive the applicable nonresidential base incentive.

CDG solar projects in the Con Edison region that did not receive the Community Credit will receive a total incentive of $2.00 per Watt DC for the first 200 kWdc of the project. CDG projects in the Con Edison region that received the Community Credit will receive a total incentive of $1.00 per Watt DC for the first 200 kWdc of the project. All other eligible projects in the Con Edison region will receive a total incentive of $1.60 per Watt DC for the first 200 kWdc of the project. Projects submitted prior to April 14, 2022 may not cancel and

resubmit or change their metering type to obtain higher incentives unless allowed to do so by the April 2022 Order.

To be eligible for this incentive, a project must be sited at an affordable housing property that has documented eligibility and offset the usage of the affordable housing property (behind-the-meter) or its residents (CDG from system located on property). CDG projects on eligible properties with offsite subscribers must meet one of the following conditions:

- Demonstrate that no less than 40% of the project capacity will be dedicated to LMI residential subscribers.
- The eligible property must be owned by a public housing authority or nonprofit organization and demonstrate that no less than 20% of the project capacity will be dedicated to LMI residential subscribers.
- The eligible property must be owned by a public housing authority or nonprofit organization and demonstrate that no less than 20% of the project capacity will be dedicated to an eligible affordable housing building within the same affordable housing portfolio or development.

CDG projects on eligible properties will receive an additional $0.15/W (total of $2.15 per Watt DC) if the eligible property is owned by a public housing authority or nonprofit organization. The project must also demonstrate that no less than 60% of project capacity will be dedicated to LMI residential subscribers, there will be a minimum bill credit discount of 20% or equivalent, and that any remaining capacity will be dedicated to an eligible affordable housing building within the same affordable housing portfolio or development (including the project site).

2.4.5 Affordable Solar Residential Incentive

As part of the SEEF, eligible onsite residential projects may receive additional incentive funding. To be eligible for this incentive adder, a project must meet all eligibility requirements of the MW Block residential incentive program except as noted below, and meet one of the following criteria:

- Service the owner-occupied residence with household income less than 80% of the Area Median Income (AMI) or 80% of the State Median Income (SMI), whichever is higher; or
- Service a residential (1-4 unit) affordable housing property.

The project must have a nameplate capacity (DC) equivalent to no more than 100% of current annual energy usage; or 110% of projected annual energy usage after implementation of electric efficiency measures identified by the required audit or confirmation that these measures are already in place.

NYSERDA may set additional qualifying requirements and process for NY-Sun contractors to offer the Affordable Solar adder. These may include additional pricing and/or financing requirements to ensure that the annual cost savings requirement is met, preapproval of contract terms, review of marketing materials, and/or other criteria.

Projects meeting the requirements above will receive, subject to funding availability, an incentive adder calculated on a per Watt DC of nameplate capacity. This adder will initially be set so as to provide a total incentive (base residential MW Block incentive plus Affordable Solar adder) of $.80 per Watt DC. The adder will be adjusted over time to maintain that total incentive level, or as needed to respond to market conditions as described in section 2.5

2.5 Technical Assistance & Predevelopment

As part of the SEEF, NYSERDA will continue to support predevelopment activities and technical assistance that address key barriers to implementing PV and/or energy storage projects for LMI households, regulated affordable housing, and disadvantaged communities. Program Opportunity Notice 3414: Affordable Solar

and Storage Predevelopment & Technical Assistance Program (Predevelopment Program) provides technical assistance grants for solar and/or storage projects that will benefit LMI households, affordable housing, environmental justice communities, and disadvantaged communities, in addition to providing viable project economics for developers, investors and other partners. NYSERDA will also support projects that are focused on outreach that will build a pipeline of solar and/or storage projects benefiting LMI households and affordable housing.

The Predevelopment Program funds predevelopment activities related to securing project financing, organizing a project business model, development of cooperative or community ownership models, early-stage project planning, site identification, team organization, customer marketing/management, benefit models unique to affordable housing tenants, or other factors of LMI solar and/or energy storage projects. Selection criteria includes project-level considerations such as size, impact on LMI households, cost-effectiveness, replicability, incorporation of efficiency measures, incorporation of resiliency measures, and related factors. Additional portfolio-level considerations include geographic balance, diversity of approaches, and overall number of distinct awardees. Eligible applicants include affordable housing providers, community-based organizations, local government entities, housing authorities, technical assistance providers, and other entities with direct capacity to aggregate LMI households or services to LMI households. NYSERDA may also issue separate solicitation(s) for additional technical assistance resources targeting specific market segments, such as support for state and local affordable housing agencies.

2.6 Flexibility to Adapt to Market Conditions

NYSERDA will periodically monitor uptake in each region and sector. Market conditions are expected to change, and uptake in individual regions and sectors may exceed or fall below projections. When necessary to optimize the Program's ability to achieve the overall 10,000 MWdc goal, NYSERDA may redesign the Block structure and reallocate funds from cancelled projects. The redesign of projects may include the reallocation of funding and capacity among sectors and regions. NYSERDA may also exercise the authority to make minor adjustments to the blocks and program rules to optimize program administration.

NYSERDA will share information with all stakeholders regarding program progress and market conditions by making data analysis publicly available. If changes to the program are necessary, NYSERDA will provide notice, gather market intelligence and consult with stakeholders. Program changes will be published on the website and subsequently reflected in periodic amendments to the Program Manual. If the necessary program changes conflict with the provisions contained herein, NYSERDA will file an addendum or a revised Operating Plan as necessary.

2.7 MW Block Program Participation Criteria

The MW Block program is divided into the residential, nonresidential and the commercial/industrial incentive program. A Program Manual that details the rules and regulations specific to each program is available. These documents describe the requirements for participation, requirements for incentive application, and the rules and processes related to incentive payments. Key criteria related to each program is described below.

2.7.1 Residential and Nonresidential Contractor or Builder Program Participation Requirements

New PV systems will be provided to residential and nonresidential customers through a network of NY-Sun eligible Contractors who will contract directly with the customer. The PV system's installation will be overseen by a "Builder". A contracting firm can apply for approval, by NYSERDA, for either participation as a Contractor only, a Builder only, or as both Contractor and Builder. NYSERDA's primary financial and contractual relationship will be with the eligible Contractor. The application process requires Contractors and Builders to describe their experience with PV installations and provide references.

Eligible Contractors:

- Eligible contractors shall execute a binding Participation Agreement with NYSERDA;
- Contractors are responsible for the Builder's performance;
- Contractors must remain compliant with all applicable program; rules; and
- Contractors will receive incentive payments, unless an alternative payment assignment has been agreed upon.

Eligible Builders:

- Eligible Builders are responsible for the installation and quality of projects under the supervision of an eligible contractor;
- Builders must have, at least, one technically competent certified installer, that must hold one of the three certification options described below; and
- Must agree to the terms of Builder / Contractor Relationship Agreement, which require, among other things, the maintenance of liability insurance.

NYSERDA requires that eligible Builders employ at least one technically competent certified installer that has at least one of the following certifications:

- North American Board of Certified Energy Practitioners (NABCEP) PV Installation Professional Certification,
- Journeymen Electrician, with documented International Brotherhood of Electrical Workers (IBEW)-National Electrical Prime Association (NECA) PV training and experience, such as that

provided by the National Joint Apprenticeship and Technical Committee (NJATC) apprenticeship program; with a minimum of 40 hours of PV training,

- Underwriters Laboratories (UL) PV System Installer certification, or
- A Non-credentialed existing Builder with at least 24 months of prior NY-Sun installation experience and sufficient history of quality performance may be granted "Full" eligibility at the discretion of NYSERDA.

If additional certification becomes available, it will be listed on NYSERDA's website.

Additionally, Contractors as well as the installations must meet all local requirements, including those of the utility service provider.

PV systems receiving residential/nonresidential incentives must meet the following criteria:

- The electrical output must be generated by new electric generation equipment that is electrically connected to the distribution grid after the date that NYSERDA received the Incentive Application.
- PV systems may be installed on new or existing residences or buildings, or be ground-mounted.
- The equipment must be new to the host site and be newly manufactured.
- All PV 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 Commission standards.
- All inverters must be: (i) certified as meeting applicable IEEE and UL standards and (ii) found on an approved list by the applicable IOU.
- A 5-year system warranty is required for purchased systems.
- A production guarantee is required for the term of all leases and power purchase agreements (PPA).
- Each PV system must have the ability to record system production in kWh. The Contractor may provide this information from a hard-wired PV production meter, on-line monitoring system, or inverter display recorded production.

2.7.2 Commercial/Industrial Contractor Program Participation Requirements

Any contracting firm can apply to NYSERDA for participation as a Contractor in the Upstate Commercial/Industrial program. Applicants must complete an online Contractor Application Form, agreeing to abide by the terms and conditions of the Participation Agreement.

Eligible Contractors are responsible for preparing and submitting all required PV Incentive Application documentation to NYSERDA.

PV systems must meet the following criteria:

- For all installations, the electrical output must be generated by new electric generation equipment that is electrically connected to the distribution grid after the date of the NYSERDA approved Incentive Application.
- The equipment must be new to the host site and be newly-manufactured.
- All PV modules must be certified as meeting applicable IEEE and UL 1703 standards.
- All inverters must be certified as meeting applicable IEEE and UL standards, and found on an approved list by the applicable IOU
- The eligible Contractor must provide, install, and maintain an internet enabled electric meter that displays instantaneous Alternating Current (AC) power and cumulative total AC energy

production and, at a minimum, can record cumulative total AC energy production of the PV system on an hourly and time-stamped basis, store the hourly readings for at least 7 days, and transmit recorded readings once per day to a NYSERDA designated Data Agent.

2.8 Quality Assurance/Quality Control (QA/QC)

The QA/QC process for the NY-Sun Program provides guidance and oversite for projects that receive NY-Sun incentives to ensure that projects meet applicable code requirements and high safety and performance standards. The overall goal is to ensure that partners can consistently provide customers with properly installed, safe, reliable solar PV systems that produce the projected amount of energy over their expected life cycle. Organizations that demonstrate a history of high QA scores receive streamlined oversight from NYSERDA. The QA/QC process consists of an onsite field inspection and/or construction photo documentation. Competitively selected third party technical experts, under contract with NYSERDA, will perform field inspections, photo review services and provide any technical assistance, if needed. NYSERDA staff may also perform reviews of the as-built photos and coordinate with Contractors and Builders regarding any corrective actions, if required.

QA/QC records will be maintained by NYSERDA in the program database. Specific functions such as inspection sampling, scheduling and field data collection will be maintained in a separate QA module. The program database is available to program staff, installers and QA/QC contractors and can be used to sample and review applications, identify installation status and ascertain quality performance.

PV systems installed by new Contractors or Builders in the Program, will be required to participate in increased onsite field inspections and as-built photo documentation to ensure a high standard of quality assurance. NYSERDA will select a representative sample of completed projects for either onsite field inspections or as-built photo evaluation based upon the Contractor or Builder's demonstrated quality performance and production volume. Contractors and Builders that have consistently demonstrated an ability to design and construct projects that meet the NY-Sun requirements will have less NYSERDA oversight. This allows NYSERDA to provide increased assistance in areas where there are quality concerns. Contractors and Builders who fail to meet the requirements of the Program will be placed on disciplinary action and/or terminated from the Program.

Contractors and Builders will receive detailed reports following the review of the photo and in-field assessment. These reports are designed to provide clear direction on any deficiencies found as well as any corrective action that must be taken. Performance reports are shared with the Contractors and Builders to facilitate continuous production improvement by effective feedback and internal training. Customers are also able to request a QA field inspection at no cost to the customer.

2.9 Mid-Point Review

NYSERDA will conduct a formal Mid-Point Review to determine, in light of potential changes in state and/or federal policy and market factors, whether any associated changes are necessary to the NY-Sun incentive structure and/or the E Value or method for setting it.

- As part of the Mid-Point Review, NYSERDA will analyze, at a minimum: (1) updated project cost estimates based on developer-reported data, utility-reported interconnection costs, and international cost trends in modules and other components; (2) the types of projects being developed in response to the incentives offered (i.e., remote crediting versus CDG projects); (3) market or policy factors that may be driving changes in rate of uptake and/or costs, such as broader adoption of net crediting, opt-out CDG, or other changes to state or federal policy; and (4) whether any changes to the E Value, base incentives or adders are warranted in response to the previous factors.
- NYSERDA shall track distributed solar development separately for the Con Edison and upstate regions, and the Mid-Point Review should account for such tracking. Accordingly, the Mid-Point Review filing is triggered by the earlier of: (1) the date when 50% of either the Upstate or Con Edison capacity allocations have been committed; or (2) December 31, 2025.

- The Mid-Point Review filing and recommendations should be formally filed with the Commission for stakeholder comment in accordance with SAPA within 60 days after one of the above occurrences, with at least one intervening technical conference to offer stakeholders an opportunity to ask questions and provide feedback on the filing.
- NYSERDA shall assess the level of capacity remaining in each Con Edison Nonresidential size category and propose adjustments to the allocation of MWs across the three project sizes (if any) based on the market response to the incentive rates. Any proposed reallocation of MW across the size categories must be conducted to maintain at least the total 300 MW target, as well as budget neutrality.
- NYSERDA shall provide a breakdown of the spending by SEEF component and region (i.e., Upstate or Con Edison), and recommend changes needed, if any, to ensure an equitable distribution of SEEF funds between Upstate and Con Edison, and to maintain the path towards compliance with the Climate Act's requirements for disadvantaged communities. In the event 50% of the total SEEF budget has been expended prior to the Mid-Point Review, NYSERDA will make this filing separately and prior to the filing of the Mid-Point Review.
- With regard to the Prevailing Wage Adder, NYSERDA and Staff will undertake a comprehensive review of the true cost of prevailing wages (including any possible offsetting factors, such as future changes to federal tax policy and/or prevailing wage requirements) as part of the Mid-Point Review. Further actions can be taken at that time if it is determined that the $239 million budget for the Prevailing Wage Adder is insufficient to support the transition, or if modifications to the adder rate is warranted based on evolving impacts of prevailing wages on project development costs.
- To ensure that one region does not disproportionately exhaust the Prevailing Wage Adder budget to the other region's detriment, the Commission directs NYSERDA to track spending of the Prevailing Wage Adder budget. As ordered with respect to the SEEF budget, the Commission similarly directs NYSERDA to file a report with the Commission detailing the spending by region and recommending changes, as appropriate, to the adder incentive rates and/or structure if 50% of the total Prevailing Wage Adder budget is exhausted prior to the Mid-Point Review.
- Potential future changes to the Value Stack directives discussed in the April 2022 Order can be considered as part of the Mid-Point Review.

3 NY-SUN BUDGET & PERFORMANCE EXPECTATIONS

This 2022 Operating Plan reflects funding for the MW Block structure beginning January 1, 2016 through 2030 without annual budget constraints[15]. Budget allocations for the specific program elements are outlined in Table 4-1 and include budgets for 2016 through 2030, as well as for administering post-completion performance payments, reporting, and other "close out" activities beyond 2030[16].

The table below does not include the RGGI funds allocated by NYSERDA for customers served by PSEG Long Island, customers that do not pay CEF surcharges, or Market Development funding from the CEF in support of NY-Sun.

Table 4-1. Revised NY-Sun Program Budget

Program Budget Element	Budget
MW Block Incentives and Adders – residential, nonresidential & commercial/industrial	$2,485,201,000
Solar Energy Equity Framework	$399,764,000
Funds to Assist Transition to Prevailing Wage	$238,725,000
Consumer Education	$6,500,000
Implementation and Quality Assurance	$32,600,000
Program Administration	$58,756,000
Evaluation	$3,500,000
State Cost Recovery Fee	$41,800,000
Total	**$3,266,846,000**

[15] Case 03-E-0188, Proceeding on Motion of the Commission Regarding a Retail Renewable Portfolio Standard, Order Authorizing the Expansion of the Solar Photovoltaic and Geographic Balance Programs from 2012 through 2015 and the Reallocation of Main-Tier Unencumbered Funds (issued and effective April 24, 2012).

[16] The budget for the MW Block program may increase over time due to disencumbrance and reprogramming of CST Solar PV Program funds from previous years and/or disencumbered funds from Competitive PV contracts.

4 PROGRAM ADMINISTRATION AND IMPLEMENTATION

Program administration costs include salary and fringe benefit costs for NYSERDA staff involved in managing programs, allocable salary and fringe benefit costs for administrative support staff, direct program management expenses (travel and other costs), QA/QC, and allocable overhead administrative, facility and equipment expenses. Program Administration funding for NY-Sun, in the amount of $38.7 million, was established in the 2016 CEF Order. The May 2020 and April 2022 Orders subsequently authorized additional funds for a total of $58.8 million.

NYSERDA will manage the Program within the administration budget, optimize administration of the programs to the best of its ability, and keep DPS Staff informed of actual costs over time. NYSERDA will bring any concerns that arise to the Commission if it appears that an adjustment to the approved budgets is warranted. NYSERDA understands that an overall examination of administrative costs, including QA/QC, and the CRF, will be addressed as part of ongoing program review.

In addition to the continued quality assurance and quality control functions of the program, described in detail in section 2, NYSERDA will use the $33 million in Program Implementation funds authorized in the April 2014 Order to address barriers to the successful implementation of the Program. In administering the Program since 2014, NYSERDA has identified deployment barriers and technical assistance needs for a range of market participants, including solar contractors, State and local government agencies, landowners, and solar customers. NYSERDA will continue developing technical assistance responses to existing and emerging barriers, and, as warranted, support pilot or demonstration efforts to test new approaches. Specific areas of importance include strategies to further encourage the positive impact of solar development on agriculture and New York's rural economy, systematic solutions to interconnection costs, and system resiliency in locations vulnerable to increased flooding or other impacts of climate change.

5 EVALUATION

It is anticipated that Impact, Market and Process evaluation components will continue to be necessary to support optimization of the NY-Sun program through the 2030 authorized funding period. Given the long-term funding authorization and the desire to be responsive and flexible to evolving needs, this section outlines likely evaluation activities at a high level, while purposefully leaving flexibility for future discussion between NYSERDA and DPS staffs to enumerate the specific direction and study plans.

5.1 Impact Evaluation

Impact evaluations are expected to: verify actual production of installed PV systems; investigate reasons for differences, if any, in actual vs. projected production, and examine persistence of system production and performance over time. Impact evaluation will deploy a sampling approach to cost- effectively address the population and potentially various segments or types of installed projects. The specific solar PV impact evaluation objectives, approaches, and timelines will be further defined through discussions between NYSERDA and DPS staff.

A number of impact evaluations have been completed for NY-Sun. An impact evaluation for NY-Sun was completed in 2018 that assessed projects installed from 2011 to May 2016[17]. A follow-up to this study was completed in 2020 that assessed projects completed between May 1, 2016 and March 31, 2018[18]. A third impact evaluation, as part of a broad solar and storage market/ impact study, is in development and will assess projects completed 2018-2024. Results from the 10-year performance persistence assessment will also be included in this study and is also anticipated to be complete in 2024.

5.2 Market and Process Evaluation

This area of evaluation will assess important market indicators over time to understand the impact of the program and to help position the program for maximum effectiveness. Market and Process evaluation will be applied in the solar PV area to understand indicators such as system cost, evolution of business models, and installer and customer satisfaction over time. The details of this potential evaluation area will also be determined through further discussion between NYSERDA and DPS staff.

A market evaluation study was completed in 2017 and estimated baseline balance-of-system soft costs for PV systems installed during 2016[19]. A second market evaluation study is underway and will assess indicators such as balance-of-system soft costs, and PV market adoption throughout New York State. This study will also conduct an assessment of the Solar Energy Equity Framework and collect data related to subscriber demographics and statewide representation, customer acquisition costs, and energy impacts. The first round of this evaluation will be completed in Q4 2022, with subsequent annual or biennial updates through 2024.

5.3 Evaluation Budget

The total budget authorized for evaluation of the NY-Sun Program is $3.5 million from 2016 through 2030. This aggregate budget, along with remaining funds from previous RPS evaluation allocations, will be managed over the duration of the Program in consultation with DPS staff to deliver the above referenced studies and other studies as may be needed. The evaluation funding will support internal NYSERDA staffing requirements and external consultant activities pertaining to evaluation.

[17] https://www.nyserda.ny.gov/-/media/Files/Publications/PPSER/Program-Evaluation/2018-Solar-Photovoltaic-Impact-Evaluation-2011-2016.pdf

[18] https://www.nyserda.ny.gov/-/media/Files/Publications/PPSER/Program-Evaluation/NYSERDA-Solar-PV-Program-Impact-Evaluation-Final.pdf

[19] https://www.nyserda.ny.gov/-/media/Files/Publications/PPSER/Program-Evaluation/2017ContractorReports/Solar-Balance-of-System-Cost-Baseline-Study.pdf

5.4 Reporting

As directed in the CEF Order and in subsequent Clean Energy Fund Reporting Guidance, NY-Sun will continue to file quarterly financial and progress reports. Reporting details include the following:

- NY-Sun financial and benefits progress data will be contained within NYSERDA's CEF Quarterly Scorecard, with the results being accessible in both the Clean Energy Dashboard and associated Open NY data set.
- The CEF Quarterly Performance Report, which includes a section featuring incremental and cumulative NY Sun progress toward the 2025 and 2030 distributed solar GW targets.
- The CEF Annual Performance Report, which provides greater contextual perspective of activities and progress.

The May 2020 Order also required NYSERDA to detail its plans for developing and reporting metrics for energy savings and clean energy market penetration in the low- and moderate-income market and in disadvantaged communities. The above-referenced Clean Energy Dashboard currently provides the ability to filter by LMI programs. This filter can be applied for an array of metrics reported in the dashboard such as energy savings, energy generation, emission reductions, participants, etc. and will be used for NY-Sun quarterly reporting. The LMI filtered metrics in the Clean Energy Dashboard can also be leveraged to track progress on overall clean energy market penetration in the low- and moderate-income market. Once disadvantaged communities and the full suite of Climate Act benefits metrics are defined by the Climate Justice Working Group, NY-Sun will be incorporated into the annual disadvantaged community reporting process that is currently being designed.

6 APPENDIX: MW BLOCK INCENTIVE STRUCTURE

The tables below provide the complete MW Block program incentive structure utilized over the course of the program to date. Real-time information about block uptake and rates can be found on the MW Block online dashboard.[20]

Table 7-1. Con Edison Residential Block Structure

All residential systems in the Con Edison region up to 25 kWdc.

Block	MWdc	Incentive/Watt
1	14	$1.00
2	6	$0.90
3	9	$0.80
4	12	$0.70
5	15	$0.60
6	18	$0.50
7	38	$0.40
8	70	$0.30
9	270	$0.20

Table 7-2. Upstate Residential Block Structure

[20] https://www.nyserda.ny.gov/All-Programs/Programs/NY-Sun/Contractors/How-the-Dashboard-Works .

All residential systems in the Upstate region up to 25 kWdc.

Block	MWdc	Incentive/Watt
1	40	$1.00
2	15	$0.90
3	19	$0.80
4	22	$0.70
5	24	$0.60
6	31	$0.50
7	70	$0.40
8	152	$0.35
9	40	$0.50

Table 7-3. Long Island Residential Block Structure

All residential systems in the Long Island region up to 25 kWdc.

Block	MWdc	Incentive/Watt
1	37	$0.50
2	15	$0.40
3	20	$0.30
4	77	$0.20

Table 7-4. Con Edison Nonresidential Block Structure

All nonresidential systems in the Con Edison region up to 7.5 MWdc. Prior to the June 2018 Operating Plan, projects over 750kW were submitted to the Con Edison Commercial/Industrial block structure. The two block structures were combined, with a single incentive offering for all projects up to 7.5 MWdc. Where multiple incentive rates are shown, the first rate is for project capacity up to 50 kWdc, and the second rate is for project capacity above 50 kWdc. Projects submitted under Block 10 that did not receive the Community Credit have the option of reapplying under Block 11.

Block	MWdc	Incentive/Watt
1	6	$1.00/$0.60
2	4	$0.90/$0.55
3	7.5	$0.80/$0.50
4	15	$0.70/$0.45
5	10	$0.60/$0.40
6	60	$0.60
7	60	$0.50

8	60	$0.40
9	70	$0.30
10	70	$0.20
11	70	$0.15
12: Projects Under 200kW	30	$1.20
12: Projects Between 200kW – 1MW	40	$1.00
12: Projects Greater than 1MW	85	$0.50
13+	TBD	TBD

Table 7-5. Upstate Nonresidential Block Structure

This block includes nonresidential systems in Upstate Region up to 750 kWdc. Where multiple incentive rates are shown, the first rate is for project capacity up to 50 kWdc, and the second rate is for project capacity above 50 kWdc.

Block	MW	Incentive/Watt
1	35	$1.00/$0.60
2	8	$0.90/$0.55
3	10	$0.80/$0.50
4	12	$0.70/$0.45
5	18	$0.60/$0.40
6	23	$0.50/$0.35
7	59	$0.40/$0.30
8	50	$0.45
9	65	$0.35
10	90	$0.25

Table 7-6. Long Island Nonresidential Block Structure

This block includes all nonresidential systems in Long Island region up to 750kW. Where multiple incentive rates are shown, the first rate is for a project's first 50 kWdc, and the second rate is for project capacity above 50 kWdc.

Block	MW	Incentive/Watt
1	7	$0.50
2	6	$0.45/$0.43

3	7	$0.40/$0.36
4	9	$0.35/$0.30
5	22	$0.25/$0.23
6	33	$0.15

Table 7-7. Con Edison Commercial/Industrial Block Structure (Discontinued)

This block structure was discontinued and combined with the Con Edison nonresidential block structure in June 2018.

Block	MW	PBI ($/W)
1	15	$0.63
2	20	$0.61
3	4.05	$0.59

Table 7-8. Upstate Commercial/Industrial Block Structure

This block includes systems in Upstate region ranging from 750kW to 7.5MW. Where multiple incentive rates are shown, the first rate is for monetary remote net metered projects, and the second rate is for volumetric net metered or value stack projects.

Block	MW	PBI ($/W)
1	120	$0.34/$0.40
2	130	$0.28/$0.40
3	130	$0.21/$0.39
4	130	$0.15/$0.39
5	140	$0.11/$0.37
6	140	$0.06/$0.35
7	150	$0.05/$0.33
8	150	$0.04/$0.28
9	160	$0.02/$0.22
10	170	$0.01/$0.16
11	180	$0.01/$0.09
12	270	$0.25
13	350	$0.20
14	575	$0.17
15	410	$0.15
16	410	$0.13
17	415	$0.11
18	800	$0.17

19	350+	$0.15
20+	TBD	TBD

Table 7-9. Initial Community Adder Offerings: Total Budget of $191M

Adder	Available For	Total MWdc Available	Incentive Rate per Watt DC	Budget in $M
O&R CA	Orange and Rockland	65 MWdc	$0.25/Watt if qualifying before 4/18/2019, otherwise $0.15/Watt	$43M shared between O&R and Central Hudson
Central Hudson CA	Central Hudson	102 MWdc	$0.40/Watt if qualifying before 4/18/2019, otherwise $0.30/Watt	
Statewide CA Tranche 1	All Investor-Owned Utilities, with the exception of Con Ed, currently without a Community Credit or Community Adder offering	250 MWdc	$0.22/Watt	$148M split across multiple tranches
Statewide CA Tranche 2	All Investor-Owned Utilities, with the exception of Con Ed, currently without a Community Credit or Community Adder offering	200 MWdc	$0.18/Watt	
Statewide CA Tranche 3	All Investor-Owned Utilities, with the exception of Con Ed, currently without a Community Credit or Community Adder offering	215 MWdc	$0.16/Watt	

Table 7-10. Initial ICSA Levels and Capacity

Project Type	Adder $/Watt (Capacity Dedicated to Eligible Subscribers)	Adder Capacity Block (MW)*
Upstate-MTC or Community Credit	$0.05	150
Upstate-Community Adder	$0.10	150
Upstate-No MTC, CC, or CA	$0.20	100
Con Edison Projects	$0.10, or $.20 for projects meeting additional requirements for Environmental Justice Bonus Incentive	100

Total		**500**

Table 7-11. Rooftop and Carport Canopy Adder Levels (Con Edison Nonresidential Only)

Base Incentive Block	Adder $/Watt*
Blocks 6 and 7	$0.30
Blocks 8 and 9	$0.25
Blocks 10 and 11	$0.20
Future Blocks	TBD