

NY-Sun Initiative Quarterly Performance Report to the Public Service Commission Quarter Ending September 30, 2019

Final Report | November 2019

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.

NY-Sun Initiative
Quarterly Performance Report to the
Public Service Commission

Quarter Ending September 30, 2019

Final Report

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1 Overview of NY-Sun

1.1 Introduction

NY-Sun is a \$1 billion initiative to expand solar capacity throughout New York State by utilizing public funds in a strategic manner to build a self-sustaining solar market. NY-Sun provides financial support to photovoltaic (PV) installations and presents a comprehensive approach to reducing solar market costs and barriers. Building on the goals and accomplishments of the NY-Sun program, Governor Andrew M. Cuomo's Green New Deal advanced the next phase of the program by expanding NY-Sun's goal of 3,000 MW of distributed solar by 2023 to 6,000 MW by 2025. This expansion goal was identified as an integral component of the Climate Leadership and Community Protection Act (CLCPA), which was enacted on July 18, 2019.

Through September 30, 2019, the New York State Energy Research and Development Authority (NYSERDA) realized 934 MW of solar installed statewide with NY-Sun funding with an additional 1,053 MW in the pipeline (Table 1). The NY-Sun funded solar capacity installed statewide as of September 30, 2019 generates approximately 1,096,189 megawatt-hours (MWh) of electricity each year (Table 2). These NY-Sun solar PV installations reduce annual carbon dioxide equivalent (CO₂e) emissions by 552,986 metric tons,¹ and provide for an estimated \$143 million annually in customer (participant) bill savings.² NY-Sun leveraged substantial outside investment in solar PV, amounting to more than \$2,558 million in non-NYSERDA funding to date. The budget and financial status associated with NY-Sun programs is presented in Table 3.

Expanding the view to include all funding support for distributed solar from NYSEDA-administered initiatives, 1,451 MW have been installed statewide and an additional 1,182 MW are in the pipeline as of September 30, 2019.³ These distributed solar installations generate approximately 1,686,077 MWh of electricity each year, reducing annual CO₂e emissions by 859,212 metric tons.⁴

Evidence of a self-sustaining solar market continues to build, with distributed solar capacity being installed even in the absence of direct NYSEDA funding support. Through September 30, 2019, a total of 2,014 MW of distributed solar capacity have been installed statewide,⁵ including more than 563 MW installed to date without direct NYSEDA funding.

1.2 High-Level Accomplishments This Quarter

- A total of 50 MW of NY-Sun supported projects were brought online in Q3 2019. While the pipeline has grown from 970 MW in Q2 to 1,040 MW in Q3, overall completions of NY-Sun supported projects through the first three quarters of 2019 are down 7% (192 MW) over the first three quarters of 2018 (206 MW). However, many projects reached mechanical completion during the summer months, and NYSERDA anticipates a strong fourth quarter in 2019.
- Following its opening in May 2019, Block 2 of the Retail Energy Storage Incentive Program is now fully subscribed and closed. Block 3 opened in July 2019 at \$200/kWh in Rest of State and is approximately 50% subscribed. Block 1 in Long Island and Block 2 in New York City remain open. Although the retail storage program is distinct from NY-Sun, all retail storage project applications to date have been paired with PV. Additionally, Block 1 of the Long Island Single-Family Residential Incentives, which provides additional incentives for single-family residential storage paired with a PV system on Long Island, opened in July 2019 at \$250/kWh.
- In anticipation of the full allocation of the Upstate Commercial Block 13, the Upstate Commercial Block 14 was announced in September 2019. This new block will total 200 MW at an incentive level of \$.17/Watt.
- Uptake for the Affordable Solar Residential Onsite program, which provides additional incentives for on-site residential projects for low- to moderate-income homeowners, was comparable in Q3 2019 to Q2 2019. Through Q3 2019, 485 installations were completed with 34 more in the pipeline. A total of 84 NY-Sun contractors have submitted Affordable Solar projects to date.
- The Multifamily Affordable Housing Added incentive, which provides additional incentives for projects sited on regulated affordable housing, has seen steady growth since its introduction in June 2018. Through Q3 2019, 19 installations were completed with 34 more in the pipeline.
- The Affordable Solar Predevelopment and Technical Assistance program, which provides funding to support the development of community solar projects serving low- to moderate-income households as well as solar serving multifamily affordable housing properties, approved 21 project applications through Q3 2019, with 19 predevelopment projects under contract. Additionally, the Urban Homesteading Assistance Board (UHAB) became the first Predevelopment Program contractor to complete all project milestones. UHAB exceeded initial project goals by securing commitments with 23 Housing Development Fund Corporation to install 585 kW of combined capacity.
- Although all Residential Block NY-Sun incentives for Long Island have been exhausted, Green Jobs - Green New York financing is still available. As of Q3 2019, 1,485 financing-only Long Island projects have been completed and 203 additional Long Island financing-only project applications have been received or approved in the pipeline.

- Through the Clean Energy Siting and Soft Cost Reduction initiative, which seeks to reduce soft cost barriers inhibiting the deployment of clean energy technologies, NYSERDA has been working with local government officials to help implement sections of the clean energy guidebooks. Additionally, as a complement to the updated version of the New York Solar Guidebook for Local Governments and the creation of the New York Battery Energy Storage Guidebook for Local Governments, technical assistance was provided to more than 300 counties, towns, and villages throughout New York State. More than 40 topic-specific workshops were held, reaching an audience of more than 2,500 local officials through Q3 2019.
- As of Q3 2019, six Solar for All projects have come online and are allocating credits to low-income subscribers. Two of the remaining three Solar for All projects are anticipated to come online in Q4 2019, and the final project is anticipated to come online in Q1 2020. Through Q3 2019, 902 Solar for All subscribers have been assigned to projects and are receiving credits on their electricity bills.
- In Q4 2018, the fourth round of Solarize campaigns concluded. Since 2014, 93 Solarize campaigns throughout New York State led to the installation of 2,579 solar projects totaling 19.9 MW capacity. More detailed information on these projects including a map can be found online at nyserda.ny.gov/All-Programs/Programs/NY-Sun/Communities-and-Local-Governments/Solarize/Solarize-Campaign-Map.

2 Progress and Results

Table 1. Capacity toward 3GW Goal

Through September 30, 2019 (MW)^{6,7}

Program	Projects Completed (Installed Units) with Adjustments through 6/30/19	Projects Completed (Installed Units) 7/01/19 - 9/30/19	Projects Completed (Installed Units) through 9/30/19	Applications Approved but Not Yet Contracted (Current Pipeline)	Projects Contracted but Not Yet Completed (Current Pipeline)	Total (Current Pipeline + Installed Units) through 9/30/19
Residential / Small Commercial	525.54	24.36	549.90	6.93	87.00	643.83
Commercial / Industrial	258.71	25.11	283.81	47.42	895.03	1,226.26
Competitive PV	100.14	0.00	100.14	0.00	16.24	116.37
Grand Total	884.38	49.47	933.85	54.35	998.26	1,986.46

Table 2. Production Associated with 3GW Goal

Through September 30, 2019 (MWh) ^{8, 9}

Program	Projects Completed (Installed Units) with Adjustments through 6/30/19	Projects Completed (Installed Units) 7/01/19 - 9/30/19	Projects Completed (Installed Units) through 9/30/19	Applications Approved but Not Yet Contracted (Current Pipeline)	Projects Contracted but Not Yet Completed (Current Pipeline)	Total (Current Pipeline + Installed Units) through 9/30/19
Residential / Small Commercial	616,902	28,594	645,496	8,133	102,123	755,752
Commercial / Industrial	303,680	29,470	333,150	55,660	1,050,622	1,439,432
Competitive PV	117,543	0	117,543	0	19,058	136,601
Grand Total	1,038,125	58,064	1,096,189	63,793	1,171,803	2,331,784

Table 3. Budget and Financial Status for NY-Sun ProgramAs of September 30, 2019 (in dollars)¹⁰

Program	Pre-encumbrances	Open Encumbrances	Expended Funds	Grand Total	Budgeted Funds 2014-2023
Residential/Small Commercial	\$442,584	\$15,826,241	\$272,084,126	\$288,352,950	\$533,522,000
Commercial/Industrial	\$30,441,995	\$334,418,843	\$56,760,051	\$421,620,889	\$482,389,695
Competitive PV	-	\$20,718,087	\$30,414,219	\$51,132,305	\$51,132,305
Program Implementation	\$637,818	\$3,249,845	\$7,304,775	\$11,192,438	\$32,600,000
Low- to Moderate-Income	\$392,335	\$2,054,351	\$1,932,299	\$4,378,985	\$13,000,000
Consumer Education	-	\$2,582,818	\$917,182	\$3,500,000	\$3,500,000
Community Adder	\$7,413,827	\$449,772	\$194,040	\$8,057,639	\$43,393,813
Admin (NYSUN Only)	-	\$199,974	\$11,569,152	\$11,769,126	\$38,706,000
Evaluation (NYSUN Only)	-	\$104,754	\$180,912	\$285,666	\$2,500,000
NYS Cost Recovery Fee (NY-SUN Only)	-	-	\$2,938,364	\$2,938,364	\$19,250,000
Total	\$39,328,559	\$379,604,685	\$384,295,118	\$803,228,361	\$1,219,993,813

Endnotes

- ¹ Per the Clean Energy Advisory Council (CEAC) Metrics, Tracking and Performance Assessment (MTPA) Working Group, NYSERDA has adopted a marginal electricity grid emission factor of 1,103 pounds CO₂e/MWh for projects completed after 2016 (<http://documents.dps.ny.gov/public/MatterManagement/MatterFilingItem.aspx?FilingSeq=190731&MatterSeq=50399>). Projects completed prior to 2016 will maintain the 1,160 pounds CO₂e/MWh previously used, based on analysis of grid emissions at that time.
- ² Based on a retail rate of the electricity generated by funded solar PV systems.
- ³ nyserdanyc.gov/All-Programs/Programs/NY-Sun/Solar-Data-Maps/NYSERDA-Supported-Solar-Projects This number is exclusive of projects funded through NYSERDA's Large Scale Renewables program, which are not distributed energy resources.
- ⁴ Per the Clean Energy Advisory Council (CEAC) Metrics, Tracking and Performance Assessment (MTPA) Working Group, NYSERDA has adopted a marginal electricity grid emission factor of 1,103 pounds CO₂e/MWh for projects completed after 2016 (<http://documents.dps.ny.gov/public/MatterManagement/MatterFilingItem.aspx?FilingSeq=190731&MatterSeq=50399>). Projects completed prior to 2016 will maintain the 1,160 pounds CO₂e/MWh previously used, based on analysis of grid emissions at that time.
- ⁵ NYSERDA: Statewide Completed Solar Projects, data through September 30, 2019: nyserdanyc.gov/All-Programs/Programs/NY-Sun/Solar-Data-Maps/Statewide-Projects.
- ⁶ 1,000 MW equals one GW.
- ⁷ Changes in numbers for previously reported completed projects are due to lagged data and/or QA/QC.
- ⁸ Note that the megawatt-hours included in Table 2 are estimated amounts based on a statewide capacity factor. NYSERDA does not, by filing this report, make any claim to the environmental attributes associated with those megawatt-hours.
- ⁹ The NY-Sun program does not determine the delivery or use of solar energy (MWh) from projects that receive funding. Generation from NY-Sun-funded projects may be used by customers for their own voluntary use or used toward meeting State requirements to deliver renewable energy to electricity customers in New York State, depending on ownership of the environmental attributes and/or renewable energy certificates (RECs) from those projects. Where NYSERDA has not acquired the RECs from a NY-Sun-funded project, NYSERDA makes no claim to the environmental attributes of that energy.
- ¹⁰ Administration, Evaluation, and NYS Cost Recovery Fee are for NY-Sun funds only.

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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