

NY-Sun Initiative Quarterly Performance Report to the Public Service Commission Quarter Ending December 31, 2019

Final Report | February 2020

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 December 31, 2019

Final Report

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Table of Contents

NYSERDA Record of Revision	i
List of Tables.....	iii
1 Overview of NY-Sun.....	1
1.1 Introduction.....	1
1.2 High-Level Accomplishments This Quarter.....	2
2 Progress and Results	4
Endnotes	EN-1

List of Tables

Table 1. Capacity toward 3GW Goal.....	4
Table 2. Production Associated with 3GW Goal	5
Table 3. Budget and Financial Status for NY-Sun Program.....	6

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 solar 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 NY-Sun, with the announcement that the NY-Sun goal of 3,000 megawatts (MW) of distributed solar by 2023 would be expanded 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. On November 25, 2019, New York State Energy Research and Development Authority (NYSERDA) filed a new petition with the New York State Public Service Commission seeking authorization of an additional \$573 million to support the expanded 6,000 MW policy goal as well as an extension of the NY-Sun Program through 2025.

Through December 31, 2019, NYSERDA realized 1,126 MW of solar installed statewide with NY-Sun funding and had an additional 1,110 MW in the pipeline (Table 1). The NY-Sun funded solar capacity installed statewide as of December 31, 2019 generates approximately 1,322,183 megawatt-hours (MWh) of electricity each year (Table 2). These NY-Sun solar PV installations reduce annual carbon dioxide equivalent (CO₂e) emissions by 666,085 metric tons (MT)¹ and provide for an estimated \$162 million annually in customer (participant) bill savings.² NY-Sun has leveraged substantial outside investment in solar PV, amounting to over \$2,811 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 NYSERDA-administered initiatives, 1,648 MW have been installed statewide and an additional 1,236 MW are in the pipeline as of December 31, 2019.³ These distributed solar installations generate approximately 1,917,287 MWh of electricity each year, reducing annual CO₂e emissions by 974,922 MT.¹

Through December 31, 2019, a total of 2,223 MW of distributed solar capacity was installed statewide,⁴ including more than 591 MW installed to date without direct NYSERDA funding.

1.2 High-Level Accomplishments This Quarter

- A total of 180 MW of NY-Sun supported projects were brought online in Q4 2019. This was the largest installed capacity completed in a quarter, and the 382 MW of completed projects in 2019 were the most for the entire NY-Sun program. This was a 41% year-over-year increase over 2018, which was the previous record year for the program.
- In Q4 2019, NYSERDA recognized an important milestone on the pathway to the new 6,000 MW goal by 2025. More than 2,200 MW of installed capacity have been completed statewide.
- Following the strong interest in the Retail Energy Storage Incentive Program in the Rest of State region (which consists of the Hudson Valley and Upstate regions of the State), Block 4 was fully subscribed in December 2019. Retail storage incentives remain available in the New York City and Long Island region. The majority of projects approved in the Retail Energy Storage Incentive Program are paired solar PV and represent community solar projects.
- In response to market uptake and to provide certainty, 200 MW of additional capacity was added to the Upstate Commercial Block 14. The block will maintain the incentive level of \$0.17/watt.
- In December 2019, the New York Public Service Commission adopted a new order on consolidated billing, and the Joint Utilities are directed to implement this for all existing and new community distributed generation (CDG) projects. NYSERDA anticipates that consolidated billing will significantly reduce customer acquisition and management costs for community solar and make community solar a more accessible and attractive product for customers.
- In October 2019, after extensive collaboration with NYSERDA, the New York State Department of Agriculture and Markets released an updated Guidelines for Solar Energy Projects—Construction Mitigation for Agricultural Lands⁵ document to guide solar installation practices on farmland.
- The Multifamily Affordable Housing Added Incentive, which provides additional incentives for projects sited on regulated affordable housing, has continued to grow. The fourth quarter of 2019 saw the largest number of new project submissions to date. Through Q4 2019, 45 installations were completed with 55 more in the pipeline. The projects completed with the Multifamily Affordable Housing adder now total over 1 MW of installed capacity with approximately 2.5 MW in the pipeline.
- 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 to the previous quarter. Through Q4 2019, 524 installations were completed with 34 more in the pipeline. A total of 85 NY-Sun contractors have submitted Affordable Solar projects to date.
- 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 and contracted 21 project applications through Q4 2019.

- As of Q4 2019, eight Solar for All projects have come online and are allocating credits to low-income subscribers. The final Solar for All project will begin commercial operation in Q1 2020. Through Q4 2019, 1,171 Solar for All subscribers were assigned to projects and are receiving credits on their electricity bills.
- Although all Residential Block NY-Sun incentives for Long Island have been exhausted, Green Jobs - Green New York financing is still available. As of Q4 2019, 1,709 financing-only Long Island projects were completed, and 230 additional Long Island financing-only project applications were received or approved in the pipeline.
- Through the Clean Energy Siting and Soft Cost Reduction initiative, NYSERDA works with local government officials to realize the benefits that can be realized through implementation of recommendations in the New York Solar Guidebook for Local Governments and the New York Battery Energy Storage Guidebook for Local Governments. Such technical assistance was provided to more than 350 counties, towns, and villages throughout New York. More than 40 topic-specific workshops and more than 50 in-person meetings were held through Q4 2019.

2 Progress and Results

Table 1. Capacity toward 3GW Goal

Through December 31, 2019 (MW)^{6,7}

Program	Projects Completed (Installed Units) with Adjustments through 9/30/19	Projects Completed (Installed Units) 10/01/19 - 12/31/19	Projects Completed (Installed Units) through 12/31/19	Applications Approved but Not Yet Contracted (Current Pipeline)	Projects Contracted but Not Yet Completed (Current Pipeline)	Total (Current Pipeline + Installed Units) through 12/31/19
Residential / Small Commercial	549.90	26.87	576.77	9.24	95.78	681.79
Commercial / Industrial	283.81	153.16	436.97	126.61	872.17	1,435.74
Competitive PV	112.52	0.00	112.52	0.00	6.51	119.03
Grand Total	946.23	180.02	1,126.25	135.84	974.46	2,236.55

Table 2. Production Associated with 3GW Goal

Through December 31, 2019 (MWh) ^{8, 9}

Program	Projects Completed (Installed Units) with Adjustments through 9/30/19	Projects Completed (Installed Units) 10/01/19 - 12/31/19	Projects Completed (Installed Units) through 12/31/19	Applications Approved but Not Yet Contracted (Current Pipeline)	Projects Contracted but Not Yet Completed (Current Pipeline)	Total (Current Pipeline + Installed Units) through 12/31/19
Residential / Small Commercial	645,495	31,537	677,032	10,841	112,435	800,308
Commercial / Industrial	333,150	179,780	512,930	148,615	1,023,782	1,685,327
Competitive PV	132,222	0	132,222	0	7,639	139,861
Grand Total	1,110,867	211,316	1,322,183	159,456	1,143,856	2,625,495

Table 3. Budget and Financial Status for NY-Sun ProgramAs of December 31, 2019 (in dollars)¹⁰

Program	Pre-encumbrances	Open Encumbrances	Expended Funds	Grand Total	Budgeted Funds 2014–2023
Residential/Small Commercial	1,127,190	16,095,463	285,946,197	303,168,849	533,522,000
Commercial/Industrial	35,661,015	350,887,955	74,961,717	461,510,687	482,801,203
Competitive PV	-	15,175,420	35,545,377	50,720,797	50,720,797
Program Implementation	336,993	3,212,071	7,796,041	11,345,105	32,600,000
Low- to Moderate-Income	169,562	2,257,933	2,352,100	4,779,595	13,000,000
Consumer Education	-	2,529,254	970,747	3,500,000	3,500,000
Community Adder	1,656,368	7,863,599	194,040	9,714,007	43,393,813
Admin (NYSUN Only)	14,915	225,840	12,253,357	12,494,112	38,706,000
Evaluation (NYSUN Only)	-	63,013	237,822	300,836	2,500,000
NYS Cost Recovery Fee (NY-SUN Only)	-	-	3,210,857	3,210,857	19,250,000
Total	38,966,043	398,310,548	423,468,254	860,744,845	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 <https://www.nyserra.ny.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 NYSERDA: Statewide Completed Solar Projects, data through December 31, 2019: <https://www.nyserra.ny.gov/All-Programs/Programs/NY-Sun/Solar-Data-Maps/Statewide-Projects>.
- ⁵ https://agriculture.ny.gov/system/files/documents/2019/10/solar_energy_guidelines.pdf
- 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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