



**NYSERDA**

# **Managing Clean Energy in Your Community**

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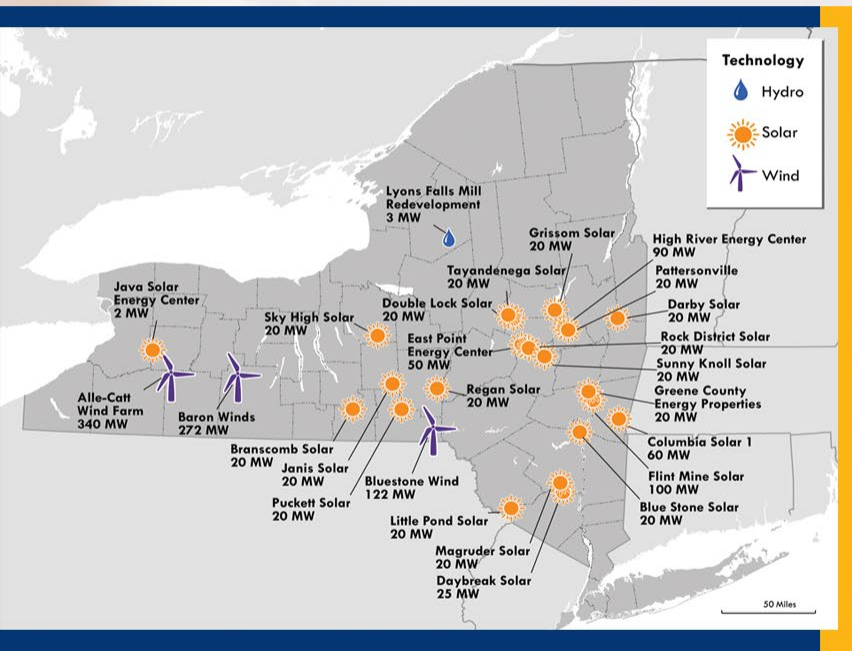
**January 31, 2018**

# New York Energy Policy

- Reforming the Energy Vision (REV) is Governor Andrew Cuomo's strategy to build a clean, resilient and affordable energy system for all New Yorkers
- Clean Energy Standard: 70% renewable energy by 2030
- Clean Energy Fund (CEF)
  - 10-year, \$5 billion funding commitment
  - Reshapes NY's energy efficiency, renewable energy and energy innovation programs
  - Reduces the cost of clean energy
  - Accelerates the adoption of energy efficiency to reduce load
  - Increases renewable energy to meet demand
  - Mobilizes private investment in clean energy

**70%**  
**renewable**  
**energy by**  
**2030**

# NYSERDA 2017 Large-Scale Renewable Awards



**\$1.4 billion**

single largest commitment to renewable energy by a state in the U.S.

**26** large-scale renewable energy projects across New York

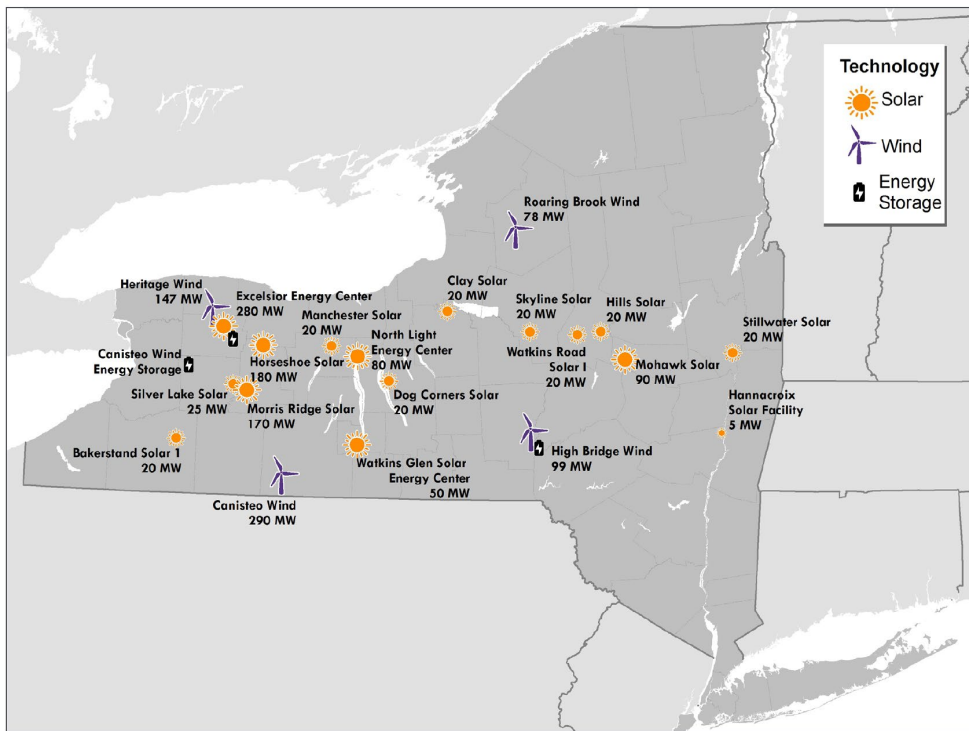
- > **22** solar farms
- > **3** wind farms; one features energy storage
- > **1** hydroelectric facilities

Generate enough energy to power **more than 430,000 homes**

Reduce carbon emissions by **1.6 million metric tons**, equivalent to taking nearly **340,000 cars off the road**

Create **over 3,000** short- and long-term **well-paying jobs**

# NYSERDA 2018 Large-Scale Renewable Awards



**\$1.5 billion** commitment

**20** large-scale renewable energy project across New York

- 16 solar farms; one features energy storage
- 4 wind farms; two with energy storage

Generate enough energy to power **more than 550,000 homes**

Reduce carbon emissions by more than **2 million metric tons**, equivalent to taking nearly **437,000 cars off the road**

Create **over 2,600** short- and long-term **well-paying jobs**

# NY-Sun Initiative

- Significantly expand installed solar capacity
- Attract private investment
- Enable sustainable development of a robust industry
- Create well-paying skilled jobs
- Improve the reliability of the electric grid
- Reduce air pollution
- Make solar available to all New Yorkers

Reduce Soft Costs

Approx. \$1 Billion Total  
Budget

Self-  
Sustaining  
Market

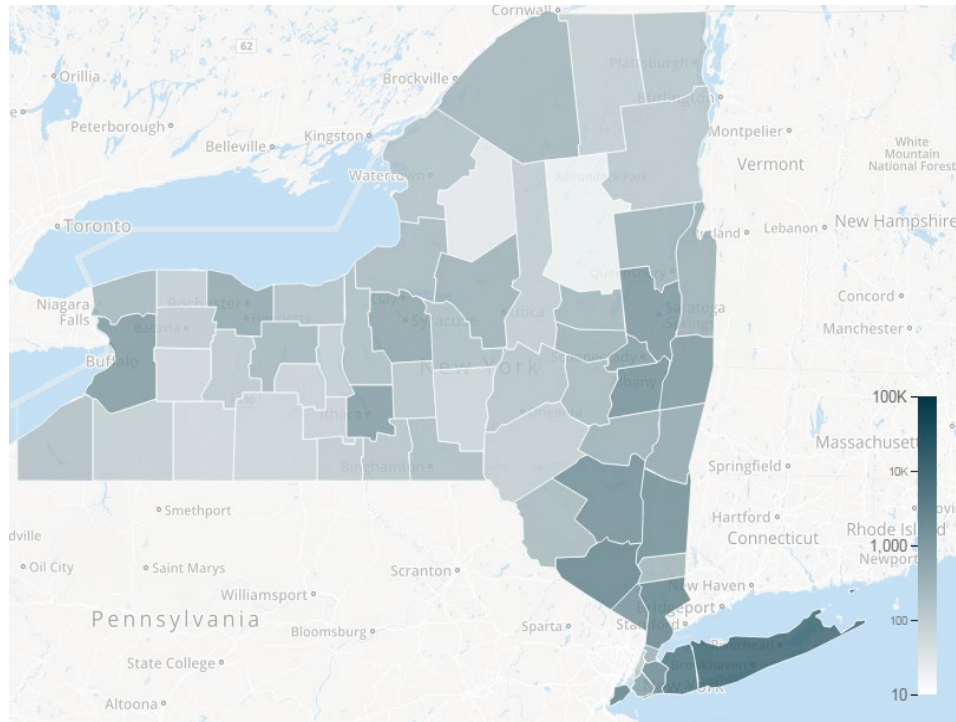
Statewide  
Goal of 3 GW  
by 2023



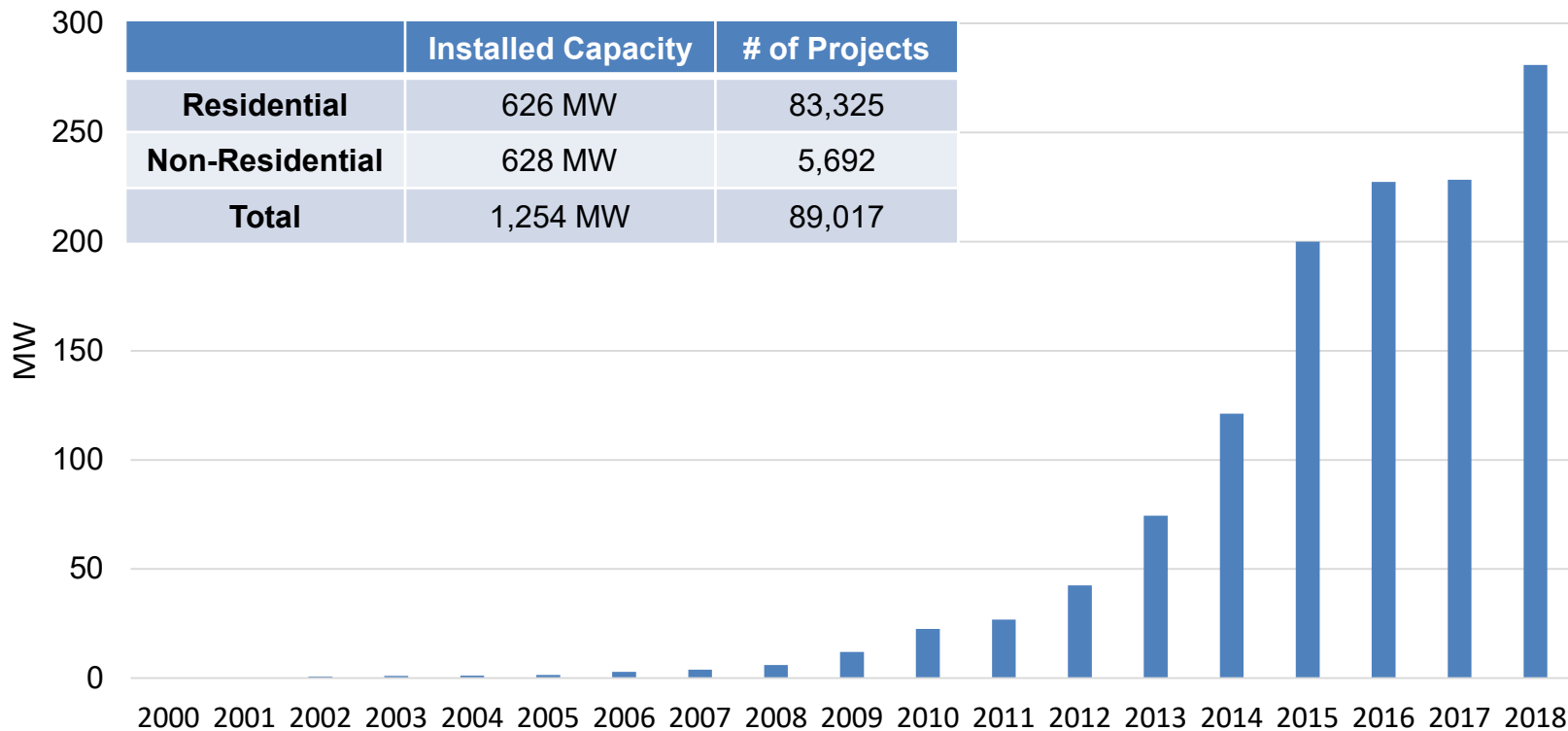
# NY-Sun Program Activity to Date

- 1,254 MW installed statewide with NYSERDA support
  - 626 MW of residential PV (83,325 projects)
  - 628 MW of non-residential PV (5,692 projects)
- 929 MW currently in NY-Sun pipeline
- Installations all 62 counties and in 1,681 different zip codes

## *Completions by County*

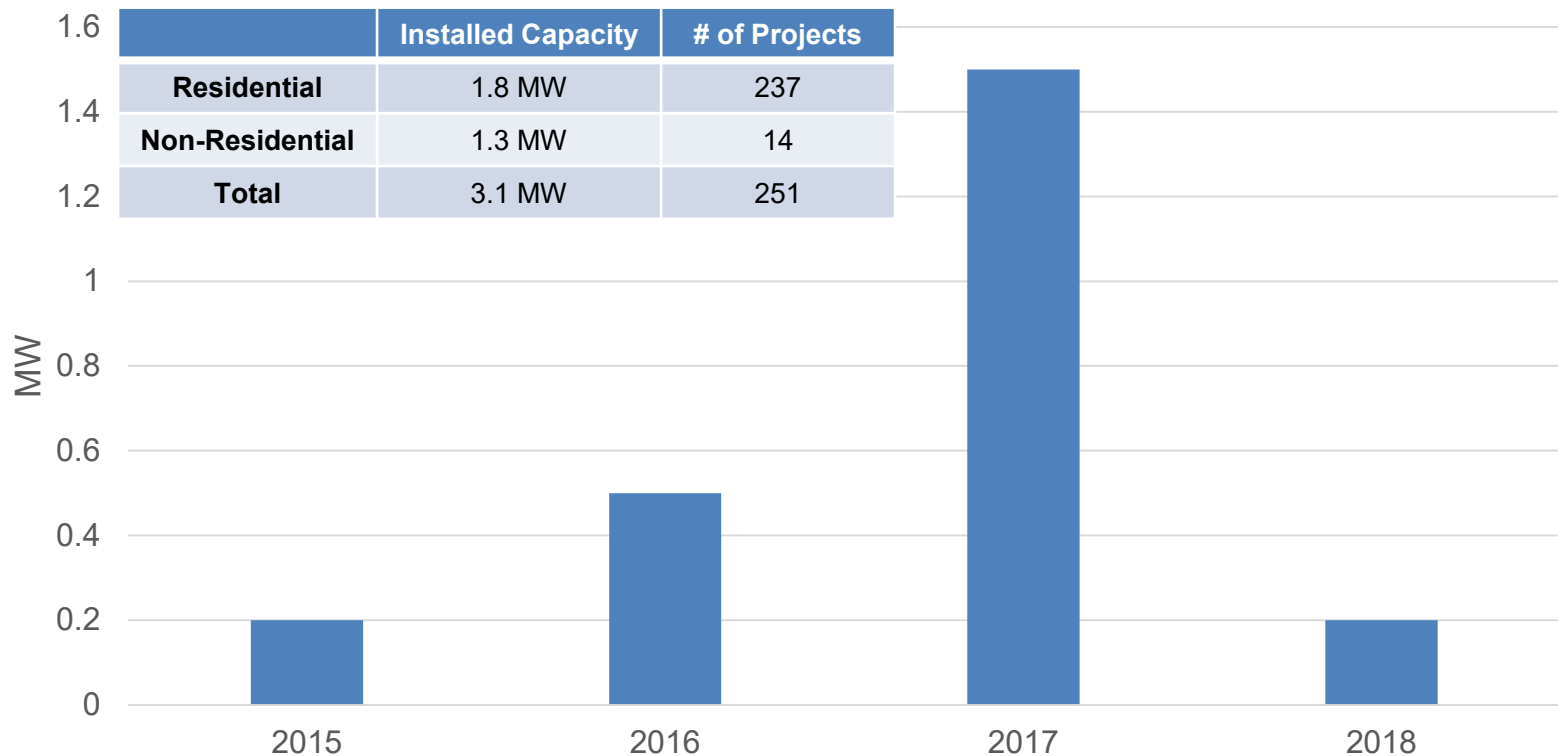


# MW Installed Statewide by Year



	Installed Capacity	# of Projects
Residential	626 MW	83,325
Non-Residential	628 MW	5,692
Total	1,254 MW	89,017

# MW Installed in Otsego County by Year



OpenNY Data as of 12/31/18



NYSERDA



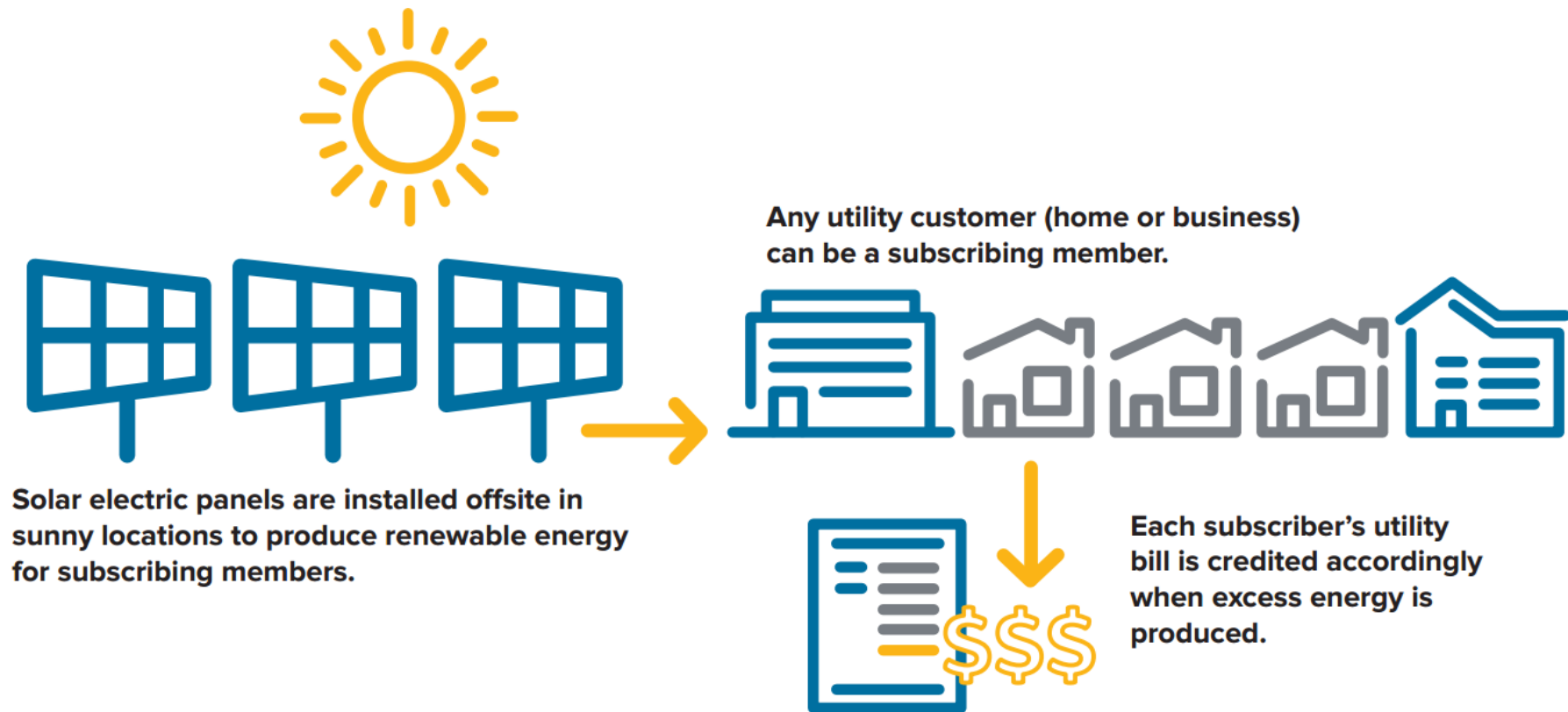
# Community Solar in New York



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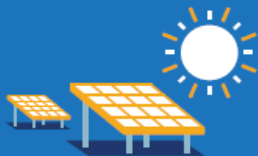
# Community Solar: How it Works



# How Community Solar Works



1



Solar panels are installed at a site in your community.

2



The clean energy is then fed into the local power grid.

3



You continue to get electricity from your utility, with no need to install or maintain panels on your home or property.

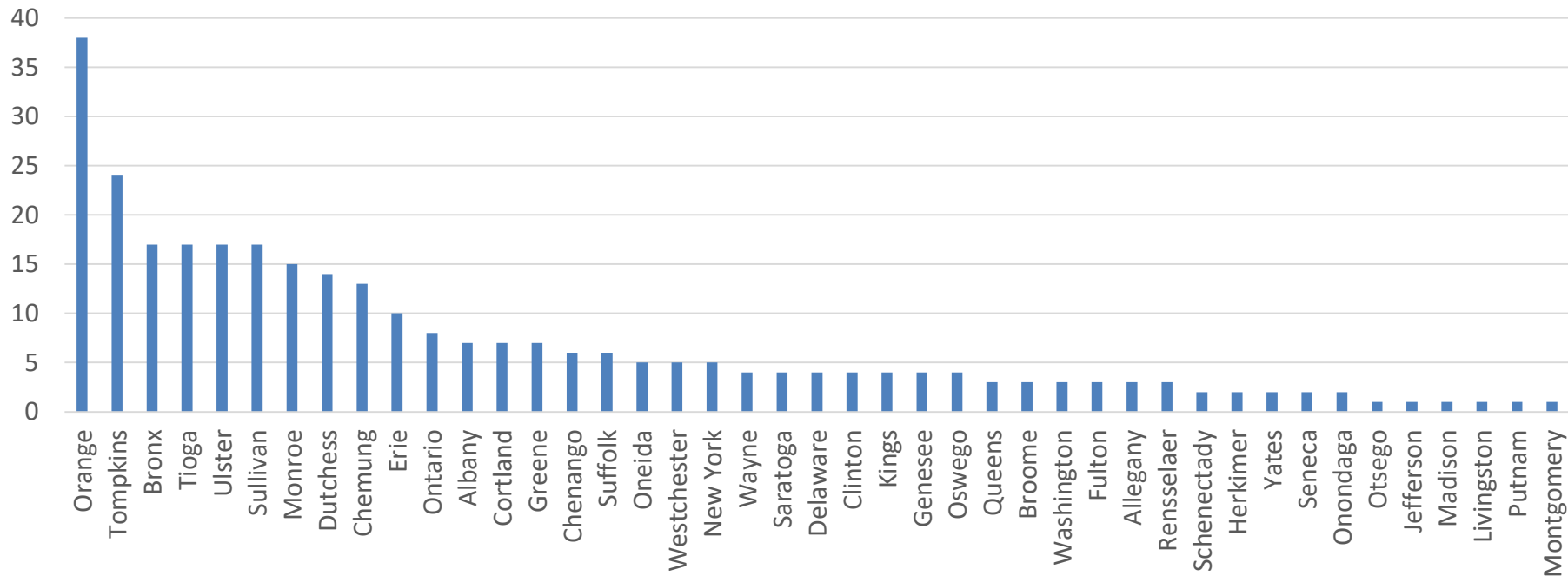
4



As a program participant, you receive credits on your electric bill at no cost to you.



# Number of Proposed CDG Projects



- There are proposed community solar projects in 43 counties
- Orange and Tompkins have the most proposed projects
- The average project size is about 2 MW AC

# **The New York Solar Guidebook and Technical Assistance for Local Governments**



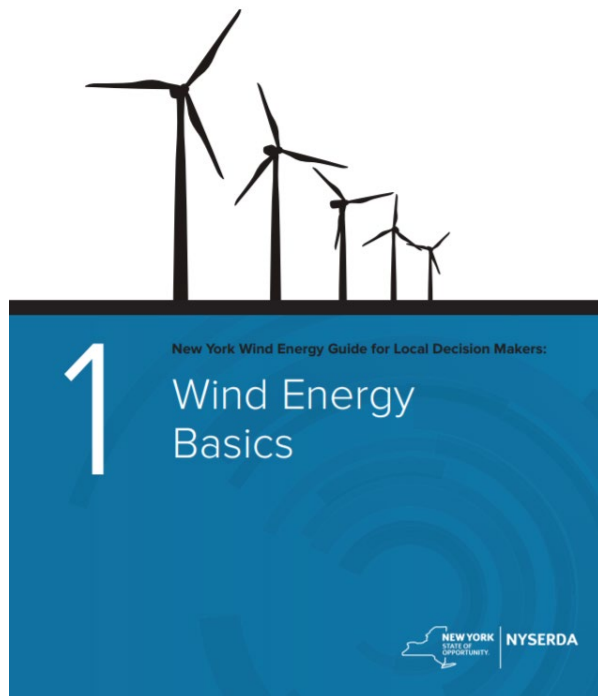
# Technical Assistance for Local Governments

## **NYSERDA offers local governments free one-on-one assistance on:**

1. Adopting a Payment-In-Lieu-Of-Taxes (PILOT) law and agreement
2. Completing the SEQR process for large solar installations
3. Planning and Zoning for Solar
  - Adopting a Model Solar Energy Law
  - Siting PV in Agricultural Districts and agricultural areas
  - Updating master plans and zoning regulations
4. Municipal Solar Procurement
5. Permitting and Inspections
  - Adopting and implementing the Unified Solar Permit
  - Technical consulting to relieve administrative burdens



# Resources for Local Governments



# NY Solar Guidebook for Local Government



**Chapter 1** - Solar PV Permitting and Inspecting in NYS

**Chapter 2** - Roof Top Access and Ventilation Requirements

**Chapter 3** - State Environmental Quality Review (SEQR)

**Chapter 4** - NYS's Real Property Tax Law § 487

**Chapter 5** - Solar Payment-In-Lieu-of-Taxes Toolkit

**Chapter 6** - Using Special Use Permits and Site Plan Regulations

**Chapter 7** - Solar Installations in Agricultural Districts

**Chapter 8** - Landowner Considerations for Solar Land Leases

**Chapter 9** - Decommissioning Solar Panel Systems

**Chapter 10** - Model Solar Energy Local Law

**Chapter 11** – Municipal Solar Procurement Toolkit

# Clean Energy Siting Homepage

## Clean Energy Siting for Local Governments

[New York State Solar Guidebook](#)

[New York Wind Energy Guide](#)

[Article 10](#)

[Technical Assistance and Support](#)

[Clean Energy Siting Email List](#)

## Clean Energy Siting for Local Governments

NYSERDA offers several resources to help local governments understand how to manage responsible clean energy development in their communities. These resources include step-by-step instructions and tools to guide the implementation of clean energy, including permitting processes, property taxes, siting, zoning, and more. If you have a question on clean energy siting in your community, or need help with a chapter of the Guidebook, email [cleanenergyhelp@nyserda.ny.gov](mailto:cleanenergyhelp@nyserda.ny.gov) and we'll respond to you within 24 hours. For more hands-on support, learn more about our free [training and technical assistance opportunities](#).

Stay up-to-date with the latest about Clean Energy Siting. [Join our email list](#) for local government officials.

*The entire Solar Guidebook is available for download here*

*Ask the team any question by sending an email to [cleanenergyhelp@nyserda.ny.gov](mailto:cleanenergyhelp@nyserda.ny.gov)*

*Municipalities can request technical assistance here*

# Model Solar Energy Law

# What Is the Model Solar Energy Law?

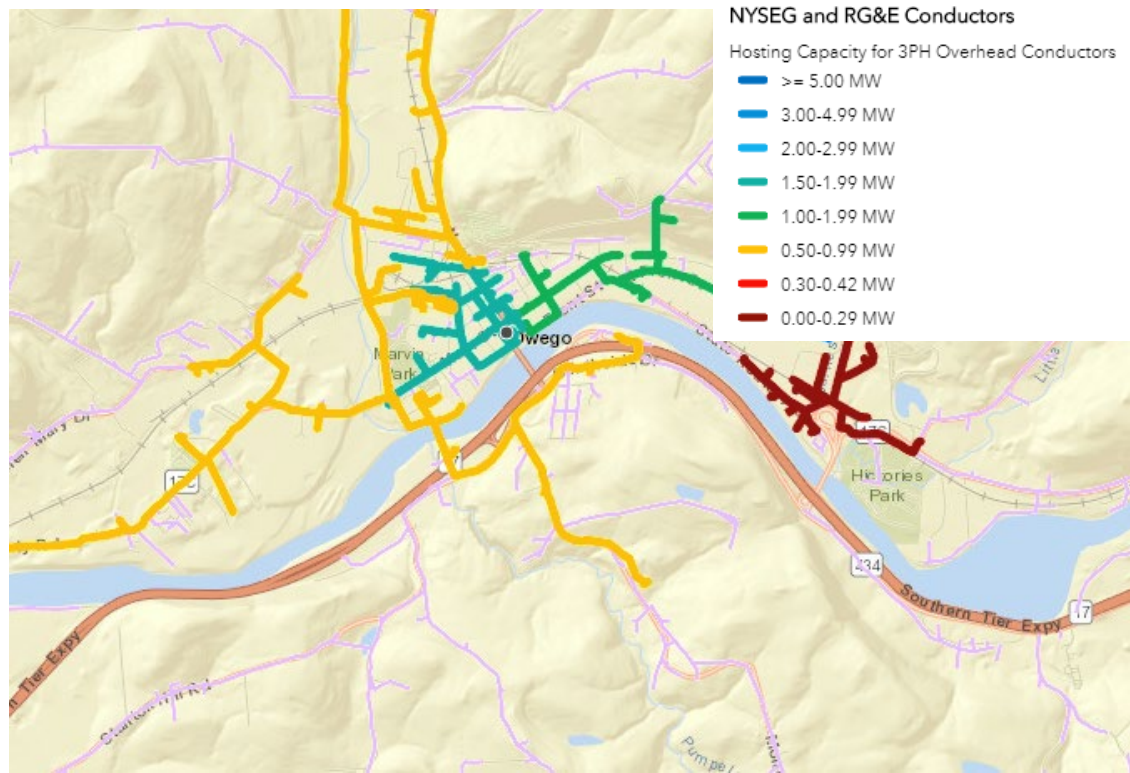
- This Model Law is an “all-inclusive” ordinance and is intended to provide a thorough review of all aspects of solar energy systems that could be regulated.
- The Model Law gives municipalities flexibilities to choose the options that work best in some cases.
- Municipalities should review this model law, examine their local situation, and adopt the regulations that make the most sense for their municipality, deleting, modifying, or adding other provisions as appropriate.

# What Should Municipalities do Before Drafting a Local Solar Energy Law?

2. Amend the comprehensive plan concurrently as developing a solar law to include a strategy for municipal-wide solar development.
3. Conduct outreach with the community to gather all available ideas, identify divergent groups and views, and secure support from the entire community.
4. Create a working group that will conduct meetings on a community wide basis and studies to determine whether existing policies, plans, and land use regulations require amendments to remove barriers to and facilitate solar energy development goals.

# What Should Municipalities Do Before Drafting a Local Solar Energy Law?

1. Municipalities should first review the available Hosting Capacity maps to learn if the development of solar energy systems is economic and possible.

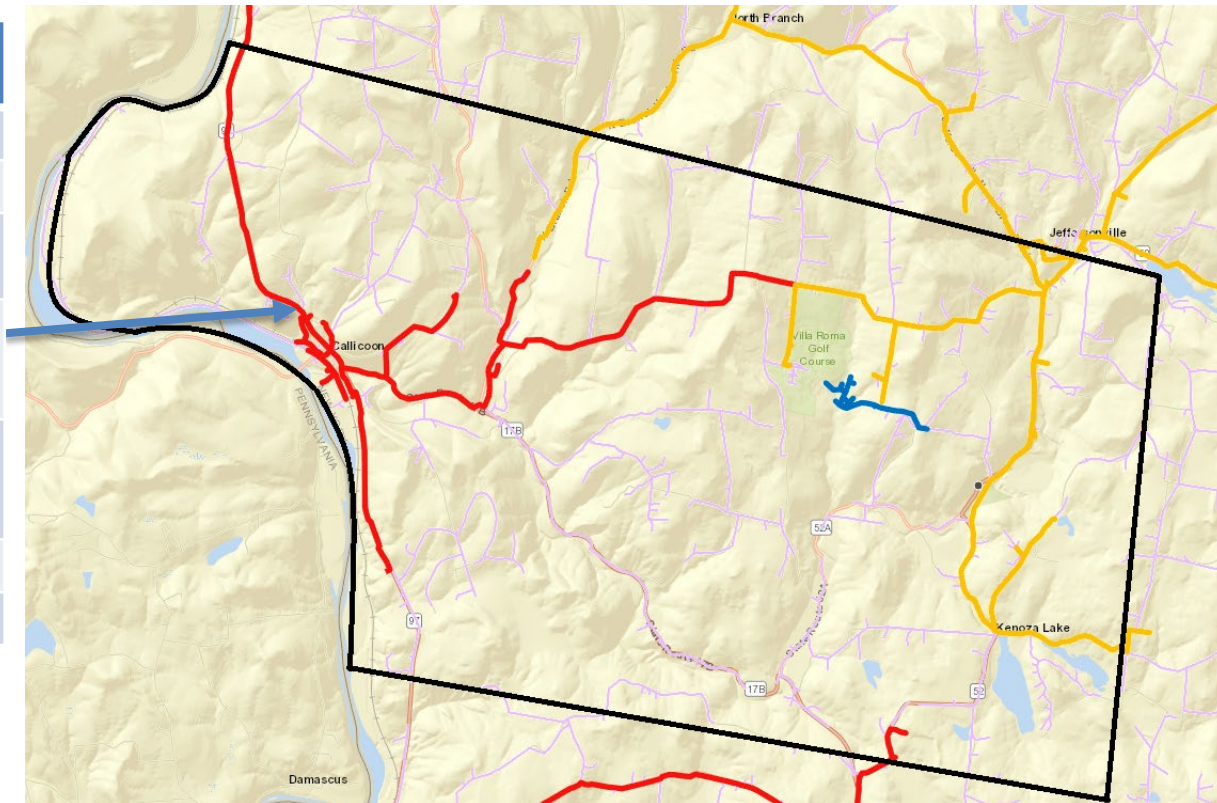




# Example Substation

## Hosting Capacity for 3PH Overhead Conductors:285

Circuit Name	285
Number of Phases	3
Nominal Voltage (kV)	12.47
Minimum total Feeder Hosting Capacity (MW)	0.14
Maximum Total Feeder Hosting Capacity (MW)	0.49
Installed D.G. (MW)	0.15
Queued D.G. (MW)	3.84



# NYS Real Property Tax Law § 487

# NYS Real Property Tax Law § 487

- Provides a 15-year real property tax exemption for renewable energy systems
- Jurisdictions may choose to “opt out” of the RPTL § 487 exemption
  - However, opting out will make solar projects uneconomic
  - RPTL § 487 does not allow partial opt-outs (e.g. to tax only large projects)
  - Jurisdictions that opt out of the RPTL § 487 exemption may opt back in by passing a local law or resolution
- Jurisdictions that do not opt out of the RPTL § 487 exemption may issue PILOT agreements, which allow jurisdictions to generate revenue “in-lieu-of” taxes

# The PILOT Toolkit

## 1. Model PILOT Law/Resolution

- Provides a legal template for jurisdictions that wish to establish a formulaic, jurisdiction-wide PILOT agreement process with solar developers

## 2. Model PILOT Agreement

- Provides a customizable draft contract to be negotiated and signed between a jurisdiction and a solar developer

## 3. PILOT Calculator

- Provides guidance on appropriate PILOT rates, for both an entire jurisdiction and for an individual solar project

## 4. Property Tax Calculator

- Provides assistance for taxing jurisdictions considering the assessed value of solar projects larger than 1MW

# Sample Annual PILOT rates

- This table displays sample PILOT rates generated by Calculator One for a typical 2 MW AC solar project in each utility service territory.
- The “Low” and “High” rates represent 1% and 3% of the compensation solar projects receive for the electricity they generate.

	Low (\$/MW AC)	High (\$/MW AC)
Central Hudson	\$2,600	\$7,600
Orange & Rockland	\$3,200	\$9,500
National Grid	\$1,700	\$5,100
NYSEG	\$1,700	\$5,000
Con Edison	\$3,700	\$11,100
Rochester Gas & Electric	\$1,700	\$5,000

# Municipal Procurement

# Solar Procurement for Municipalities

Municipalities have been taking advantage of solar across the state, totaling approximately 500 projects.



Photo Courtesy of Wheeler Drone  
wheelerdrone@gmail.com



# Procurement Options

## Direct Purchase

- The municipality pays for construction of and owns the solar project.
- The primary financial benefit of direct ownership is the low-cost capital that municipalities can obtain through bonding or other forms of lending.
- Often, this advantage is outweighed by the tax benefits of third-party ownership.

## Third Party Ownership

- Solar developer finances the cost of the project, owns the system, responsible for operation and maintenance.
- Developers are able to claim 30% Federal Investment Tax Credit & 5 year Accelerated Depreciation.
- Municipality purchases the energy.
- The financial package offered through third-party ownership is frequently better than that of direct ownership.

## Land Lease

- Allows the municipality to lease unused land to a solar developer.
- Under a land lease the municipality does not have to purchase the energy that is generated, but will receive lease payments from the developer.
- Local residents and businesses may purchase the renewable energy and take advantage of utility bill savings

# Brownfields / Landfills / Repurposed Lands



# Solar Procurement Process

Early Stage Goal Setting & Planning



Site Identification



Draft & Issue Request for Proposal



Evaluation of Proposals



Contract Negotiation



Award the Project



# Municipal Solar Host Toolkit

## The toolkits consists of:

- Template RFP
- Template Lease Agreement
- Step by Step Instructions

REQUEST FOR PROPOSALS

Leasing Municipal Land for Solar Development

Jurisdiction Name

Jurisdiction Address

Issue Date

Proposals Due By:

# Technical Assistance for Local Governments on Municipal Solar Procurement

## **NY-Sun offers free assistance:**

- Evaluating sites and reviewing utility Hosting Capacity Maps
- Assisting on drafting Request for Proposals
- Helping on evaluating proposals that are received
- Comparing lease agreements with the Model Lease Template





Thank you

For additional questions, please contact me at:

[Kendra.Kostek@nyserda.ny.gov](mailto:Kendra.Kostek@nyserda.ny.gov) or

[cleanenergyhelp@nyserda.ny.gov](mailto:cleanenergyhelp@nyserda.ny.gov)



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