



NYSERDA's Agricultural Policies and Initiatives for Large-Scale Solar Facilities

**Agriculture Solutions Fair
Friday, February 16, 2024**

Agenda

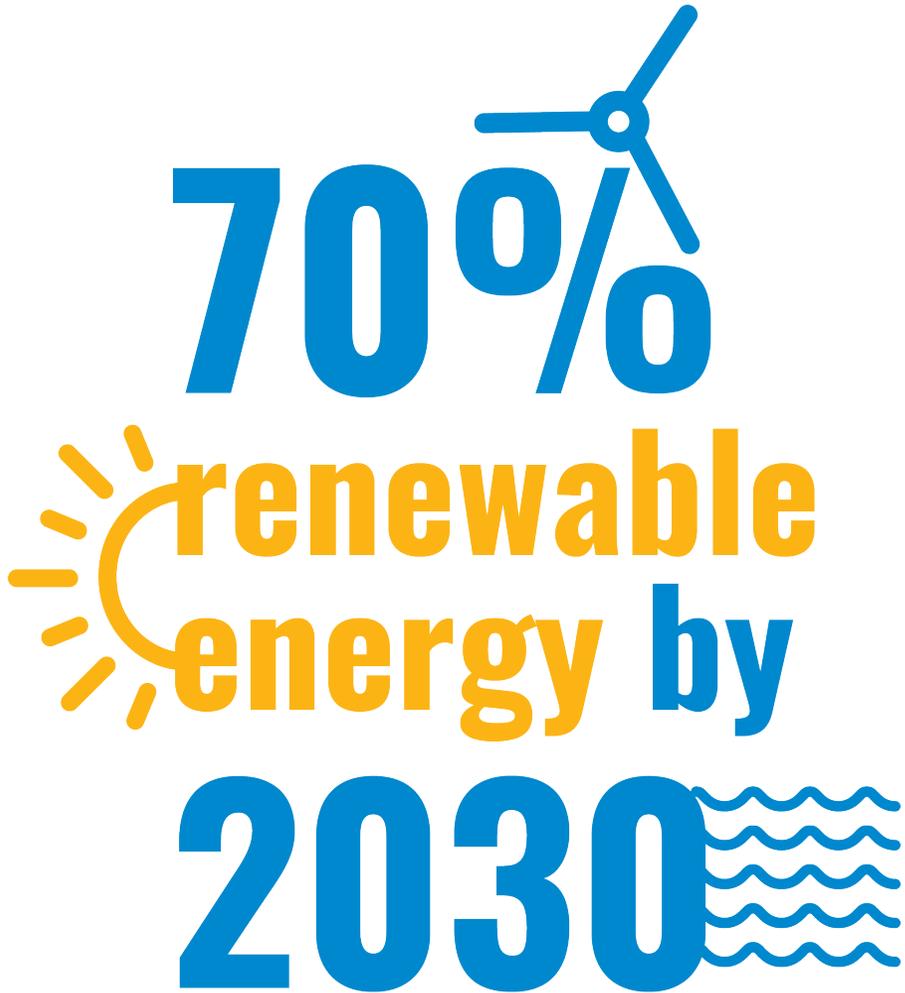
**New York State's Climate Act
2030 Renewable Energy Goal and
NYSERDA's role to achieve it**

**Overview of the New York State Agricultural
Technical Working Group (A-TWG) & the Solar
Guidebook**

**NYSERDA's LSR RESRFP Agricultural Siting
Considerations & Smart Solar Siting Scorecard**



Progress to New York's 70% Renewable by 2030



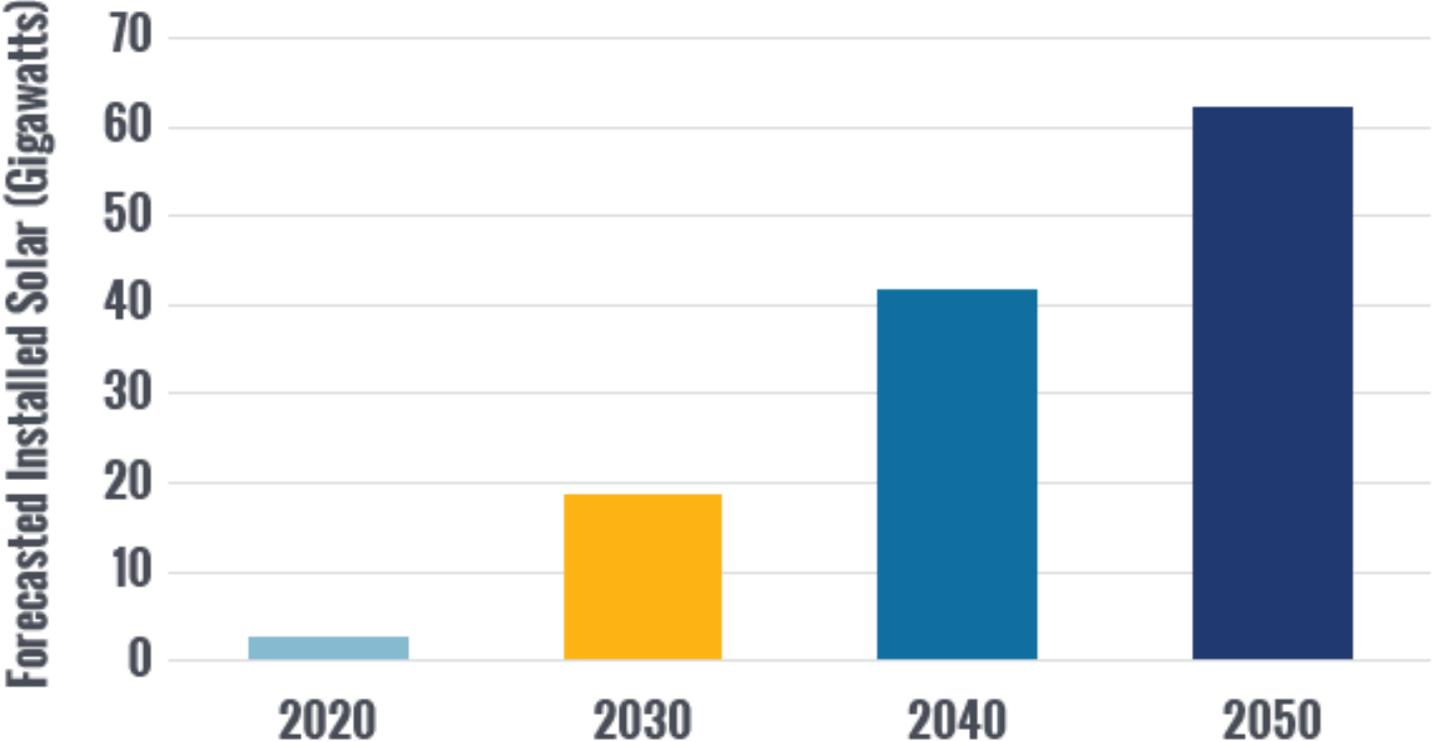
Learn more about renewable energy in New York at nyserderda.ny.gov/Impact-Renewable-Energy

Find the latest data on Large-Scale Renewable projects reported by NYSERDA [here](#).

Find the latest data on NY-Sun projects reported by NYSERDA [here](#).

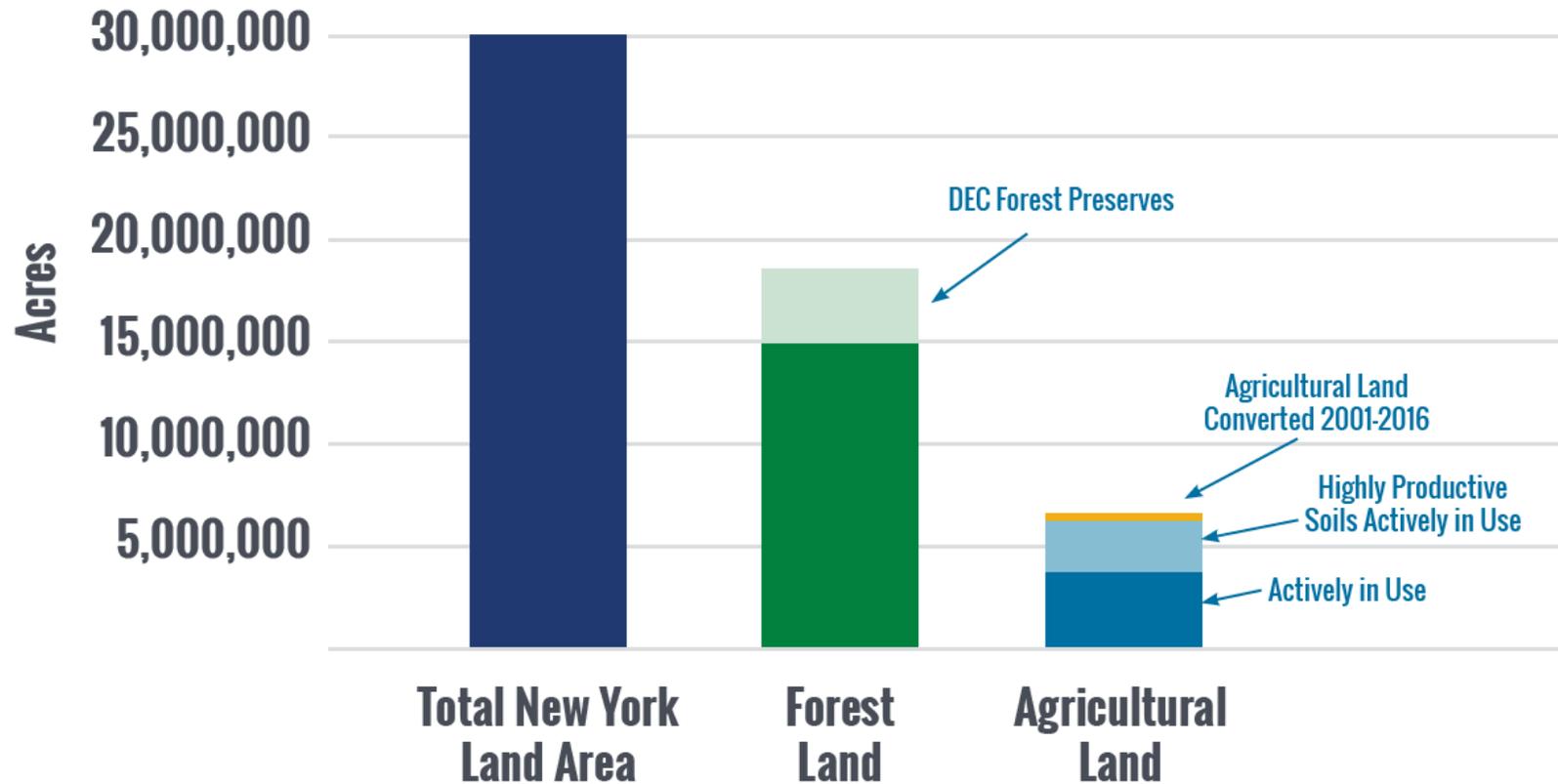
Climate Action Council's Scoping Plan:

Estimated Solar Deployment in New York, 2020-2050



Source:
[climate.ny.gov/
resources/
scoping-plan/](https://climate.ny.gov/resources/scoping-plan/)

Climate Action Council's Scoping Plan: 2050 Solar Projection Land Use Comparison



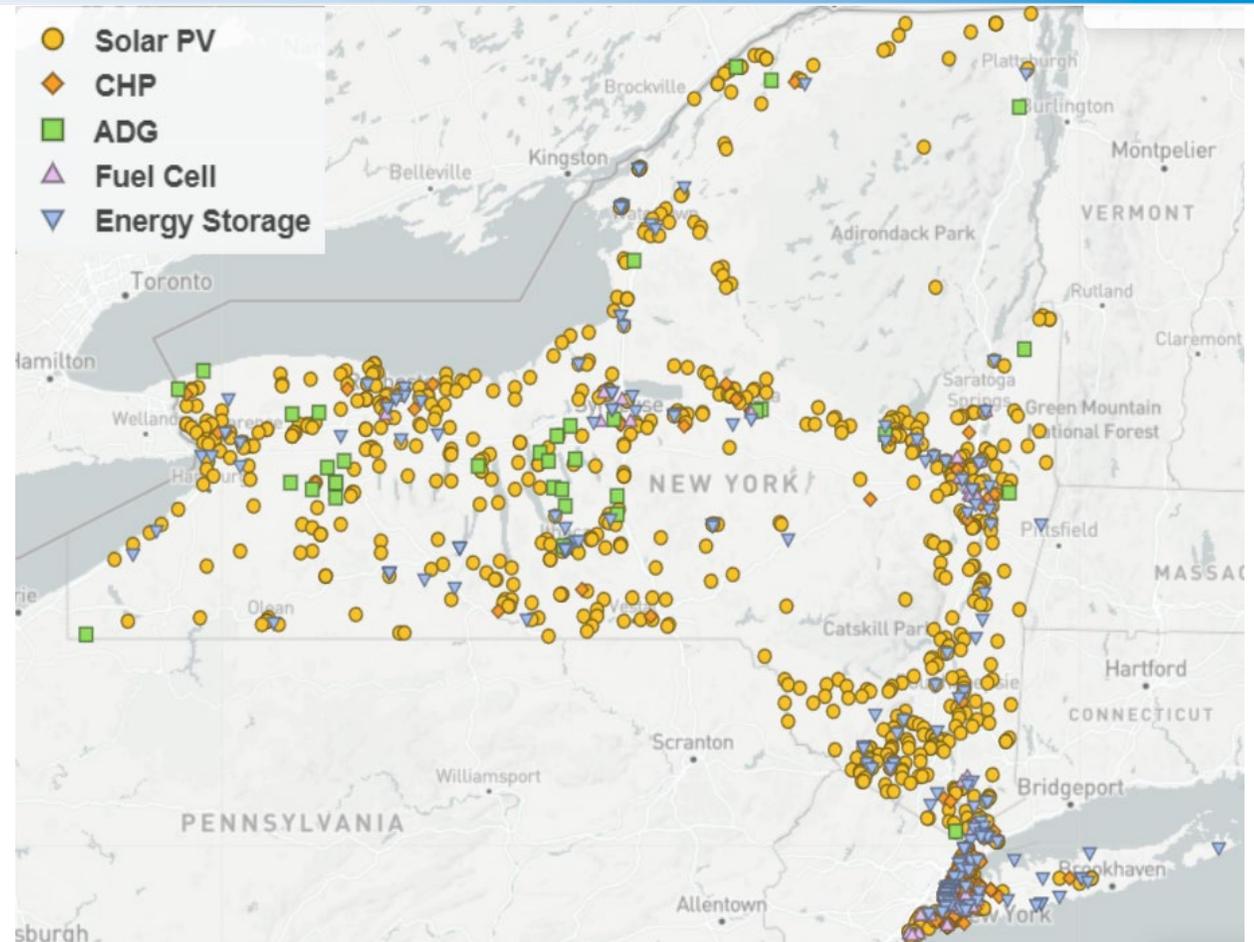
Sources: climate.ny.gov/resources/scoping-plan/

[NYSERDA 2023 Soils Data for LSR & NY-SUN Programs](#)

[American Farmland Trust Farms Under Threat](#)

NY Sun and Distributed Solar

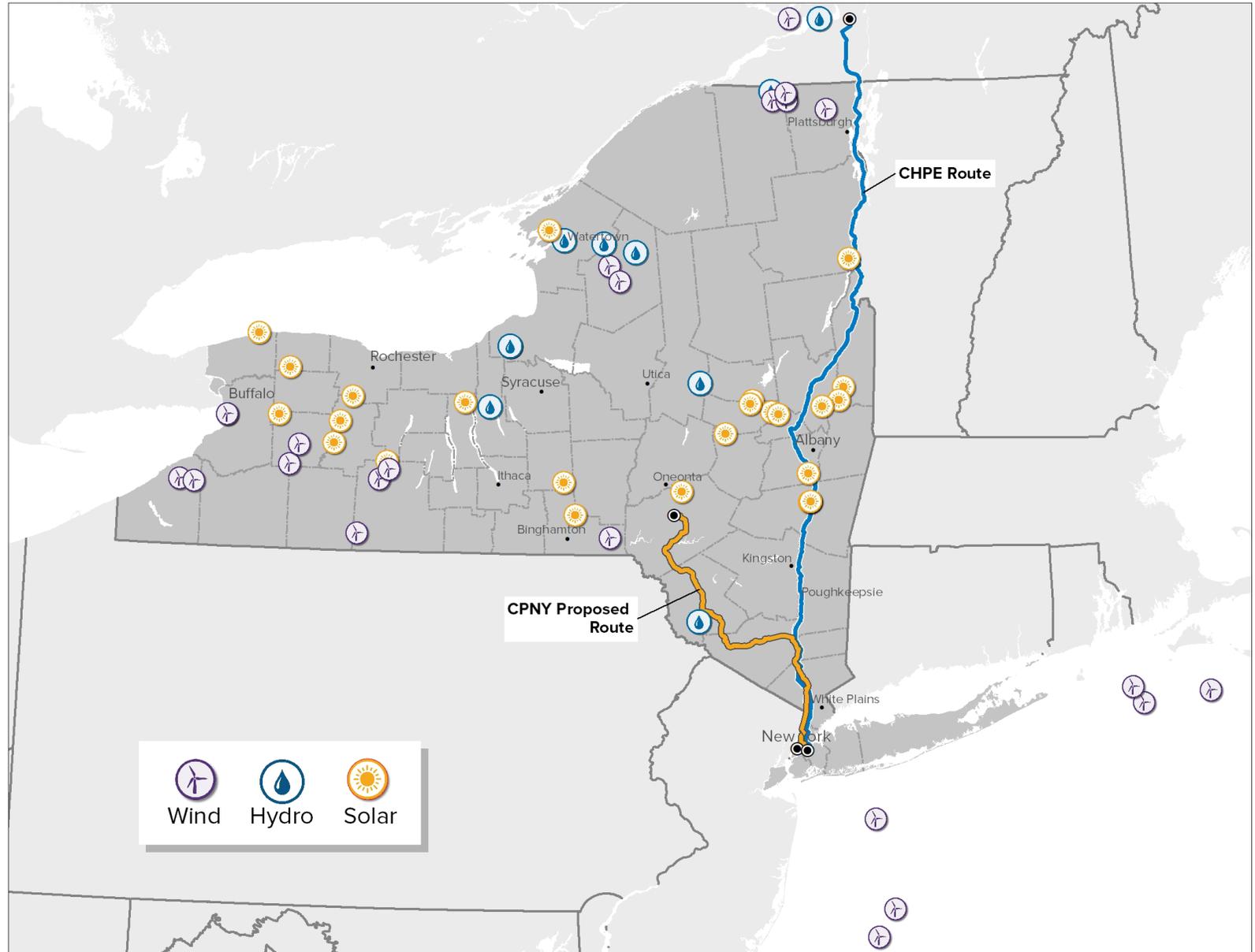
- NY-Sun is the states initiative to advance the scale-up of distributed solar and create a sustainable, self-sufficient solar industry
- NY-Sun is helping New York to install 10,000 megawatts of solar by 2030
- Map reflects nonresidential / small commercial through community solar-sized systems



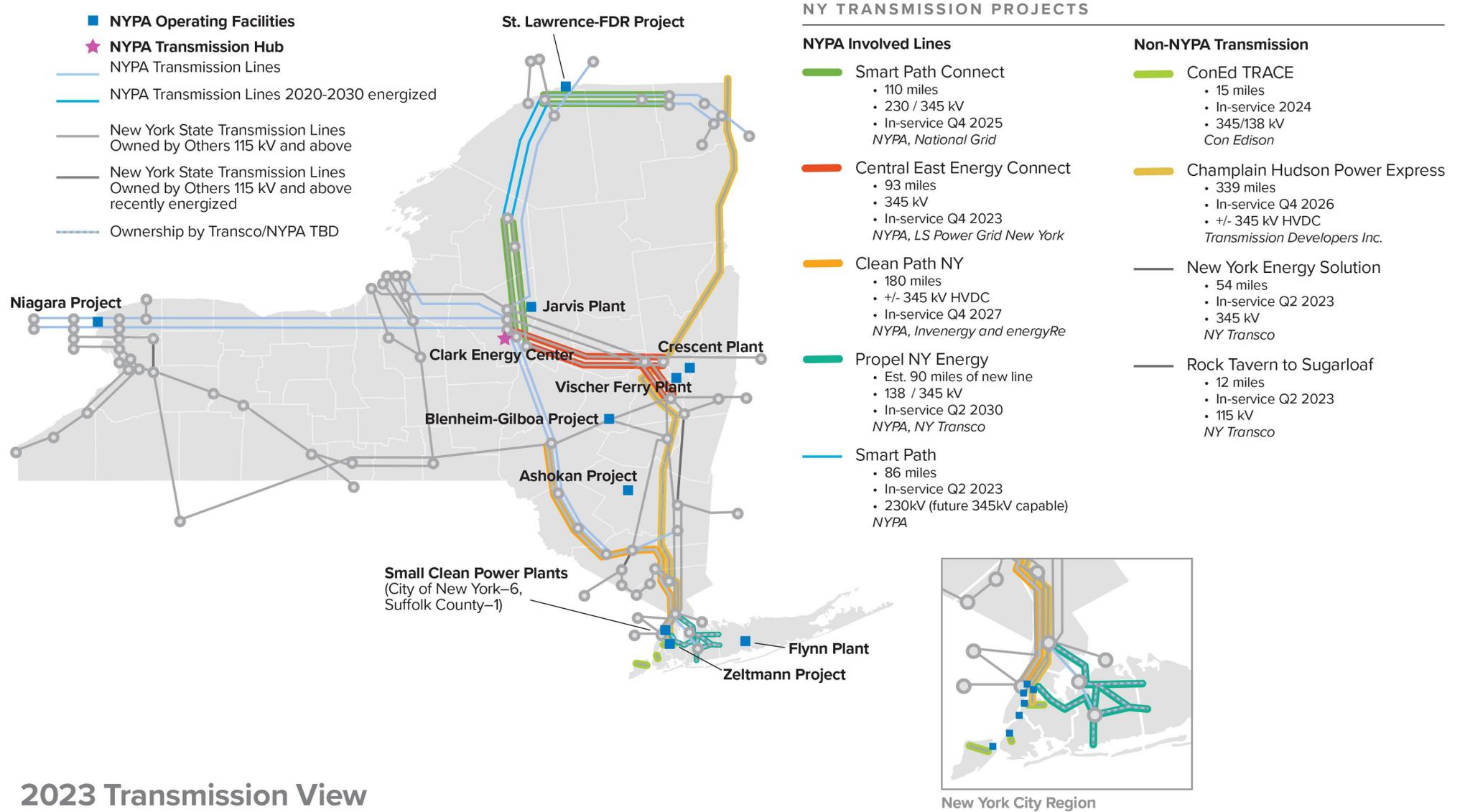
Nation-Leading Renewable Ramp-Up for a Clean Grid

Map current as of January 26, 2024

Map of NYSERDA's Active Renewable Energy Standard Large-Scale Renewable Projects



Growing Transmission Capacity in New York State



2023 Transmission View

Source: <https://www.nypa.gov/power/transmission/transmission-overview>

Typical Development Timeline for a Utility-Scale Solar Power Plant (250 MW)

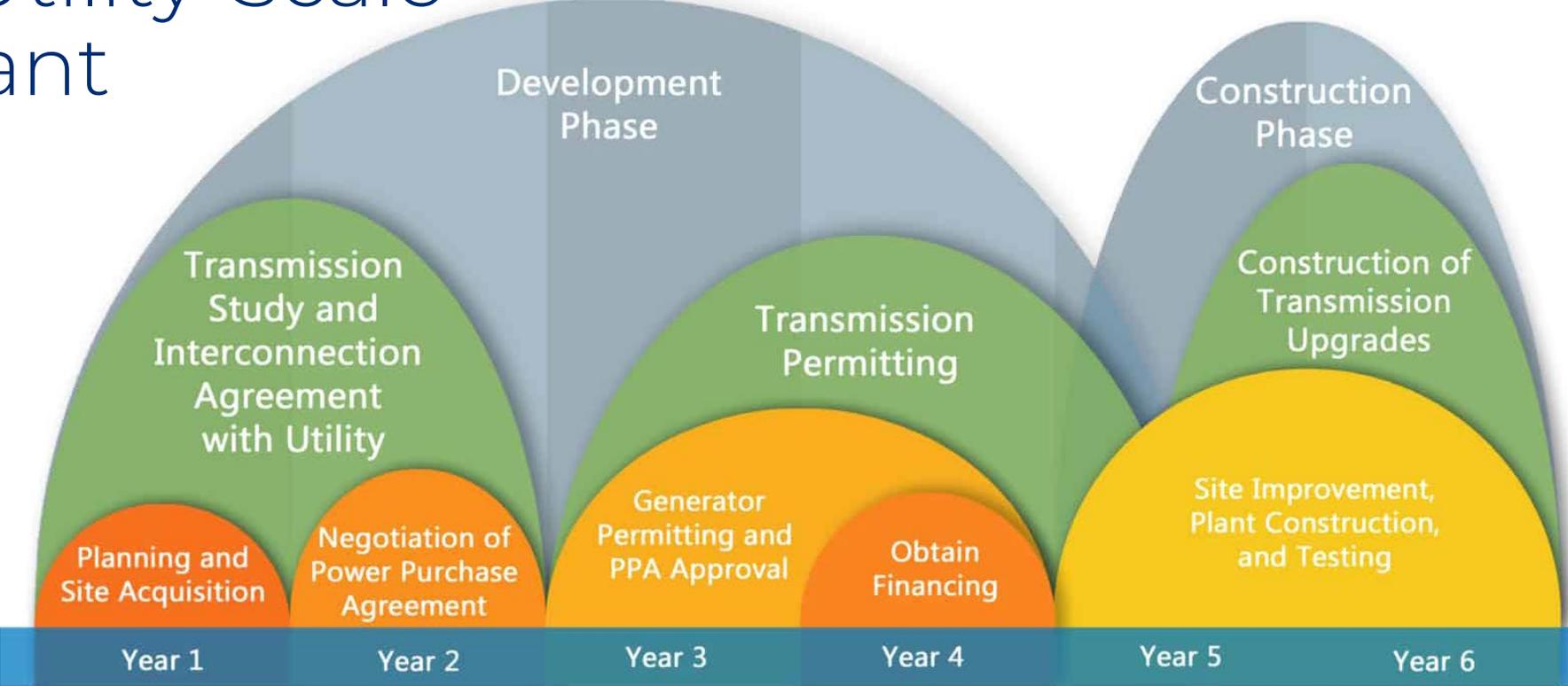


Figure provided courtesy of Solar Energy Industries Association



Commence Construction

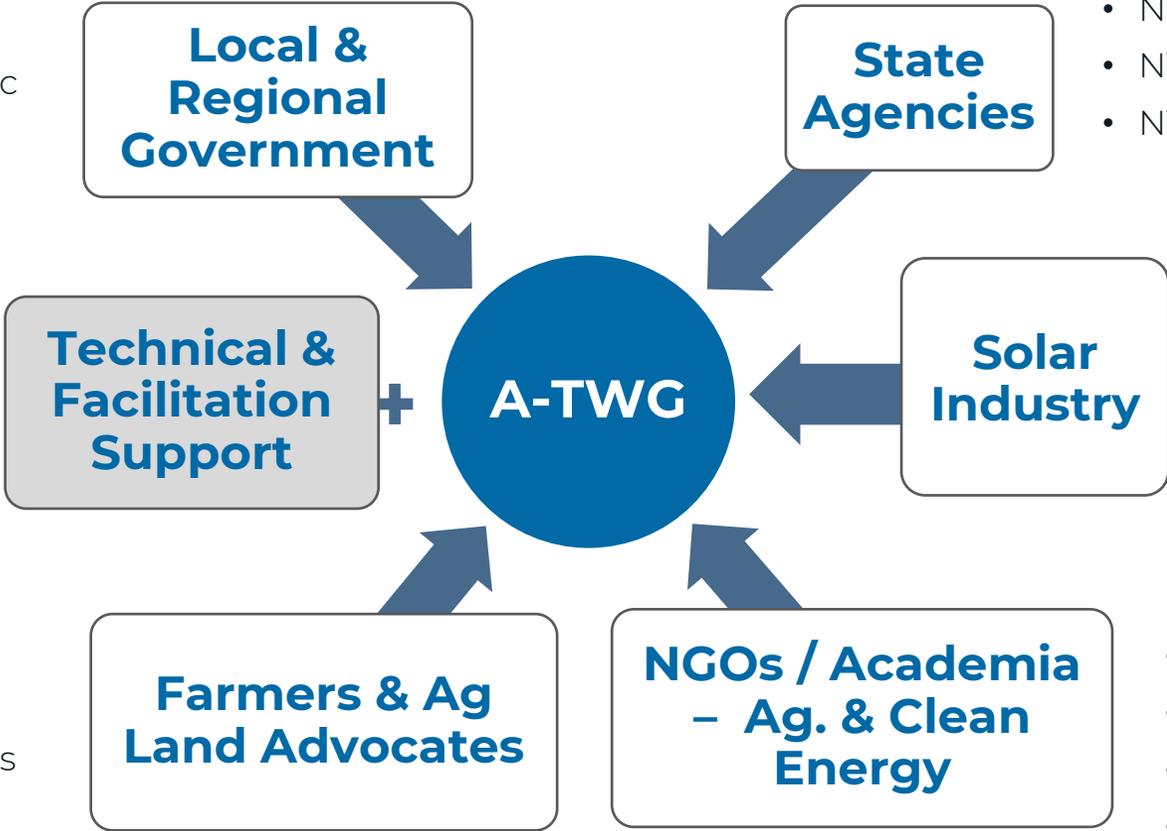
Placed in Service

Agricultural Technical Working Group (A-TWG)

- Genesee/Finger Lakes Regional Planning Council
- Suffolk County Dept. of Economic Development & Planning
- Tug Hill Commission

- Consensus Building Institute
- WSP
- Pace Law

- American Farmland Trust
- NY Farm Bureau
- NYS Assoc. of Conservation Districts
- Northeast Ag & Feed Alliance
- Northeast Dairy Producers Assoc.



- NYSERDA
- NYSAGM
- NYSDEC

- ACE NY
- EDF Renewables
- Nexamp
- NYSEIA

- Scenic Hudson
- The Nature Conservancy
- New Yorkers for Clean Power
- Cornell College of Ag & Life Sciences

A-TWVG Specialist Committees

Scorecard

- Formed Oct '21; Met 9 times
- <https://www.nyatwg.com/atwg-smart-siting-scorecard-specialist-committee>

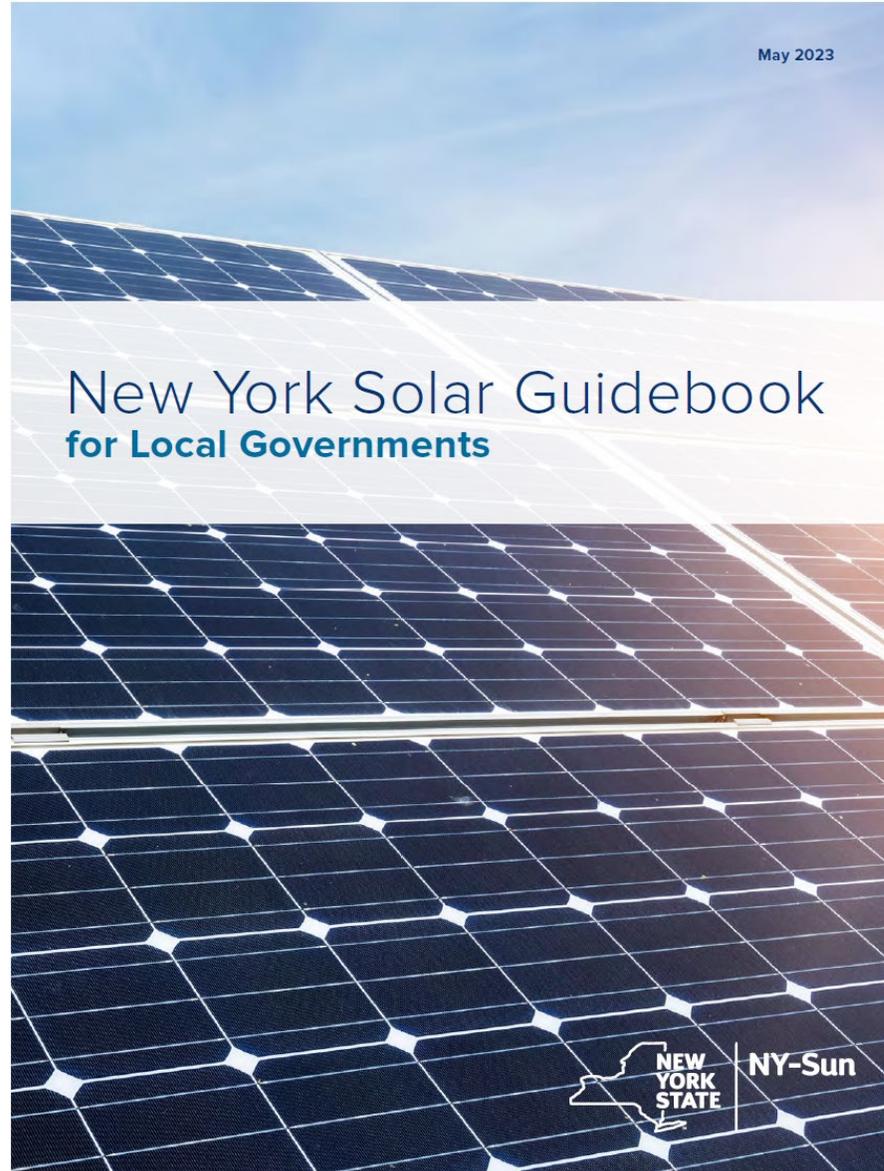
Agrivoltaics

- Formed in Nov '22; Met 8 times
- <https://www.nyatwg.com/agv-specialist-committee>
- [Growing Agrivoltaics in New York](#)

RAISE

- Formed Jan '24; Initial meeting planned for March '24
- <https://www.nyatwg.com/raise-specialist-committee>
- RAISE = Regional Agronomic Impact From Solar Energy

Solar Guidebook for Local Governments



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

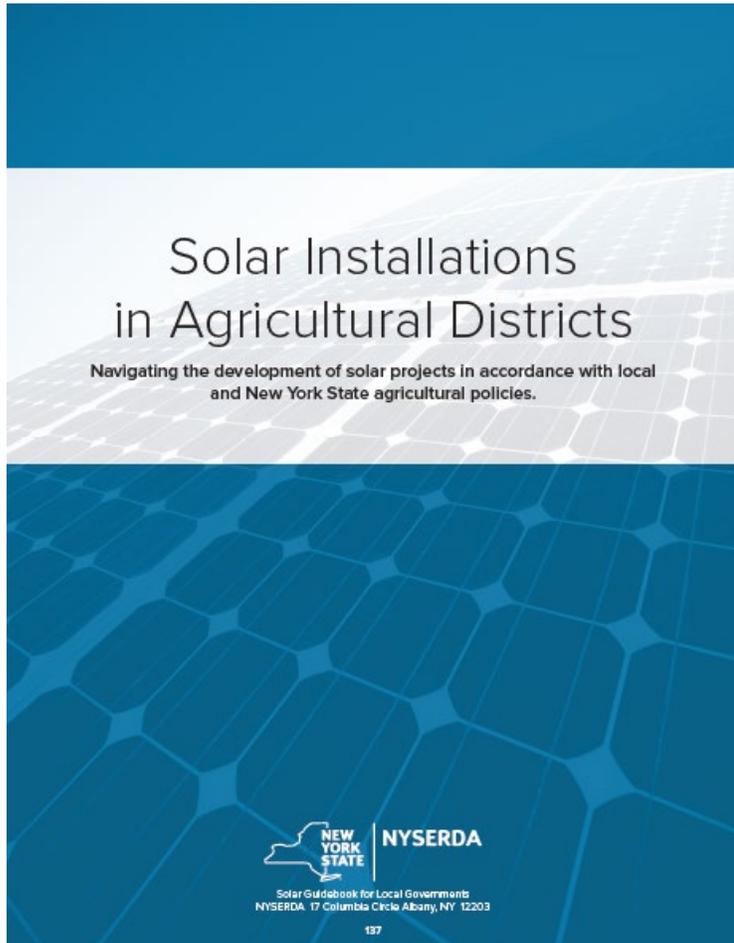
Chapter 8 - Landowner Considerations for Solar Land Leases

Chapter 9 - Decommissioning Solar Panel Systems

Chapter 10 - Model Solar Energy Local Law

Chapter 11 - Municipal Solar Procurement Toolkit

Solar Installations on Agricultural Lands



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Summary of LSR's Ag Requirements for Solar Projects Awarded in Agricultural Districts

1. NYSAGM [Notice of Intent Process](#) which is inspired by Section 305 of the Agricultural Districts Law
2. [Agricultural Mitigation Payment](#) (if applicable)
3. Agricultural Co-Utilization (if applicable)
4. NYS Department of Agriculture and Markets' (NYSAGM) [Guidelines](#) for Solar Energy Projects - Construction Mitigation for Agricultural Lands*
5. [Smart Solar Siting Scorecard](#)*

**Required for all solar projects regardless of an Ag District*

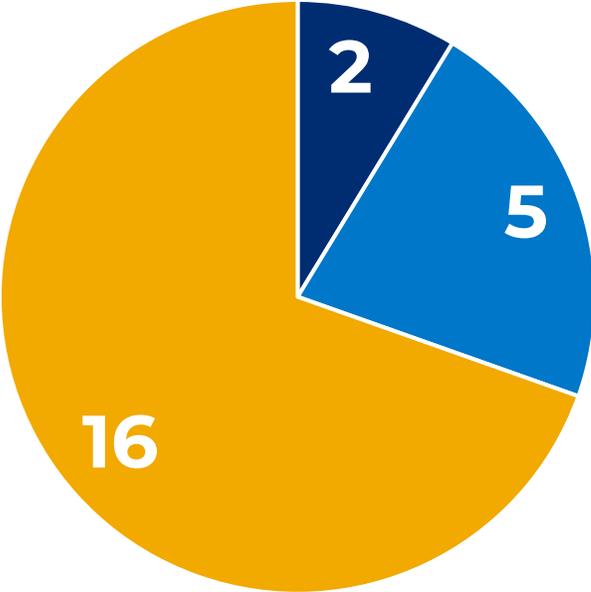
Scorecard Breakdown of Points by Category

Scorecard Section	Number of Points Available		Total
	Avoidance	Minimization	
Agricultural Protection	50	45	95
Forested Lands Protection	35	10	35*
Community Benefits & Collaboration	25		25
Extra Credit: Innovation	5		5
TOTAL POINTS AVAILABLE			160

*Maximum of 35 points available

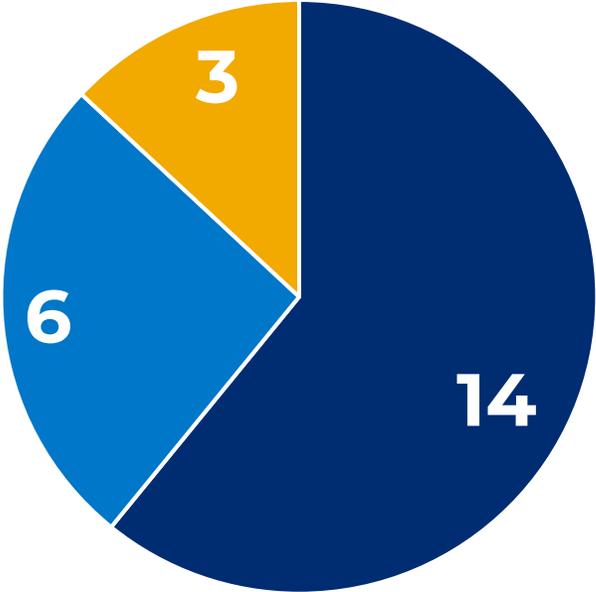
RESRFP22-1 Participant Submitted Scorecards Avoidance Results

Agricultural Avoidance: # of Projects



■ Full Points ■ Partial Points ■ No Points

Forest Avoidance: # of Projects

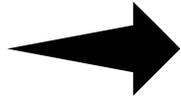


■ Full Points ■ Partial Points ■ No Points

Smart Solar Siting Scorecard Evolution

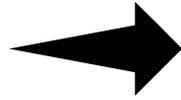
RESRFP's Before 2021

- > Incremental evolution of RFP requirements such as project viability, site character considerations and Permitting Plan Requirements and guidelines, and due diligence conducted to date



2021 Version

- > Excluded from Evaluation Criteria
- > Broad avoidance categories of certain Environmental and
- > Agricultural areas
- > All strategies were optional



2022 Version

- > Included in Evaluation Criteria
- > Focused avoidance of certain Forest and Agricultural lands
- > Strategies are now a mix of mandatory and optional
- > Expanded Categories and Strategies



2023 Version

- > Streamlined the Strategy Lists; adjusted points
- > Introduced Table 2 to prorate co-use points based on acres of co-use
- > Created list of resources to support strategy implementation
- > Strengthened Forest Protection section

Table 2:
Prorating Points
For Multiple
Co-Utilization
Types

Co-Utilization Type	Acres of FA with Co-Utilization Type ^I	FA Acres	Calculated Percentage Amount		Strategy Points Earned ^{II}		Total Points Earned
Pollinators & Ecosystem Services	_____ Acres	_____ Acres	_____ %	x	_____	=	_____
Livestock and Livestock Products	_____ Acres	_____ Acres	_____ %	x	_____	=	_____
Crop(s) Production	_____ Acres	_____ Acres	_____ %		_____		Points will be assigned by NYSERDA ^{III}

Note: NYSERDA will add any points earned for Crop(s) Production to the TOTAL.

- I Acres of Facility Area (FA) with Co-Utilization should align with the Bid Facility site plan submitted in accordance with the RESRFP23-1 Site Control minimum threshold requirement, Section 4.3.7.
- II Include points earned from Subtotal for each Co-utilization Subsection above.
- III NYSERDA will evaluate the current land use categories (e.g., NLCD categories Cultivated Crops and Pasture/Hay Land, MSGs 1-4) in the FA and the Crop Production plan and scale for each Bid and then assign points. Projects that commit to more extensive crop production Co-Utilization relative to the current acres of crop production will receive greater points for the crop production Co-Utilization strategy. Points will also be relative to percentage of other Bid Submissions % of Crop Production being proposed.

RESRFP23-1 Exhibit 3 to Appendix 2. Smart Solar Siting Scorecard Resources



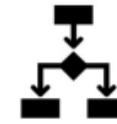
Webpages
or Blog Posts



Journal Articles
or Studies



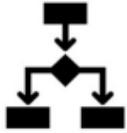
Best Management Practices
or Guidance Documents



Decision-Making Tools,
Software, or Forms

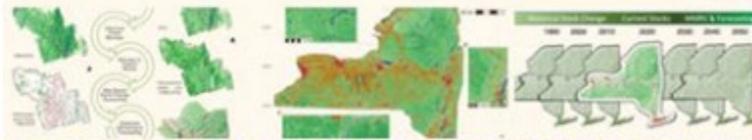


Case Studies or
Project Examples

ID#	Resource Type	Resource	Resource Description/Overview
28		The 5 Cs of Agrivoltaic Success Factors in the United States: Lessons From the InSPIRE Research Study	Agrivoltaic project success determinants and topic considerations. Provides information on site assessments and vegetation management plans. See tables 2, 3, 4, 5, 6
		McCall, et al; Vegetation Management Cost and Maintenance Implications of Different Ground Covers at Utility-Scale Solar Sites (March 28, 2023)	Review of O&M cost for vegetation management plan. <u>See sections:</u> <i>2.4. Literature Review—Vegetative O&M Costs;</i> <i>4.1. Cost Differences in O&M by Ground Cover;</i> <i>4.2. Individual Activity Costs by Ground Cover</i>
		Xerces Society, Pollinator Habitat Installation Planning Form; Pollinator Habitat Management Log (n.d.)	Forms for planning and tracking pollinator-friendly solar installation and management. Vegetation management plan may consider incorporating the following forms: Pollinator Habitat Installation Planning Form; Pollinator Habitat Management Log. <u>See sections:</u> <i>Site assessment: pages 1-5</i> <i>Vegetation management plan: pages 5-6</i> <i>Seed mix: Appendix 1</i>

NEW YORK FOREST CARBON ASSESSMENT

SUMMARY REPORT



CLIMATE & APPLIED FOREST RESEARCH INSTITUTE
JUNE 2023



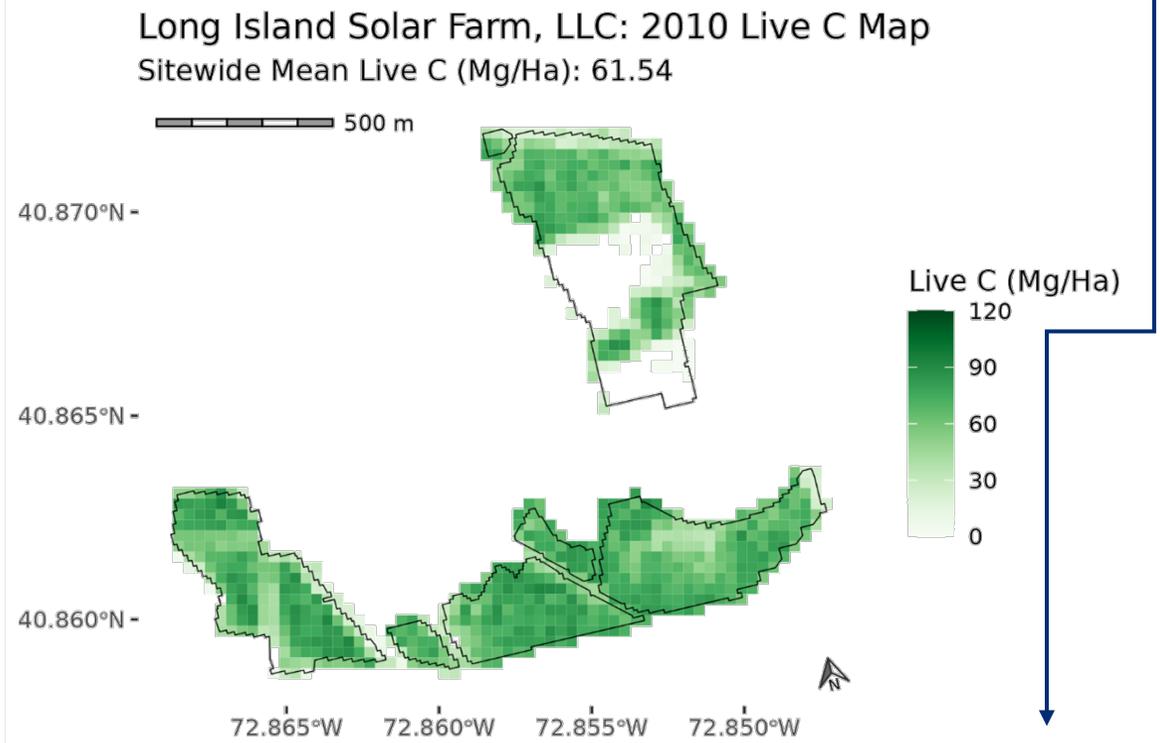
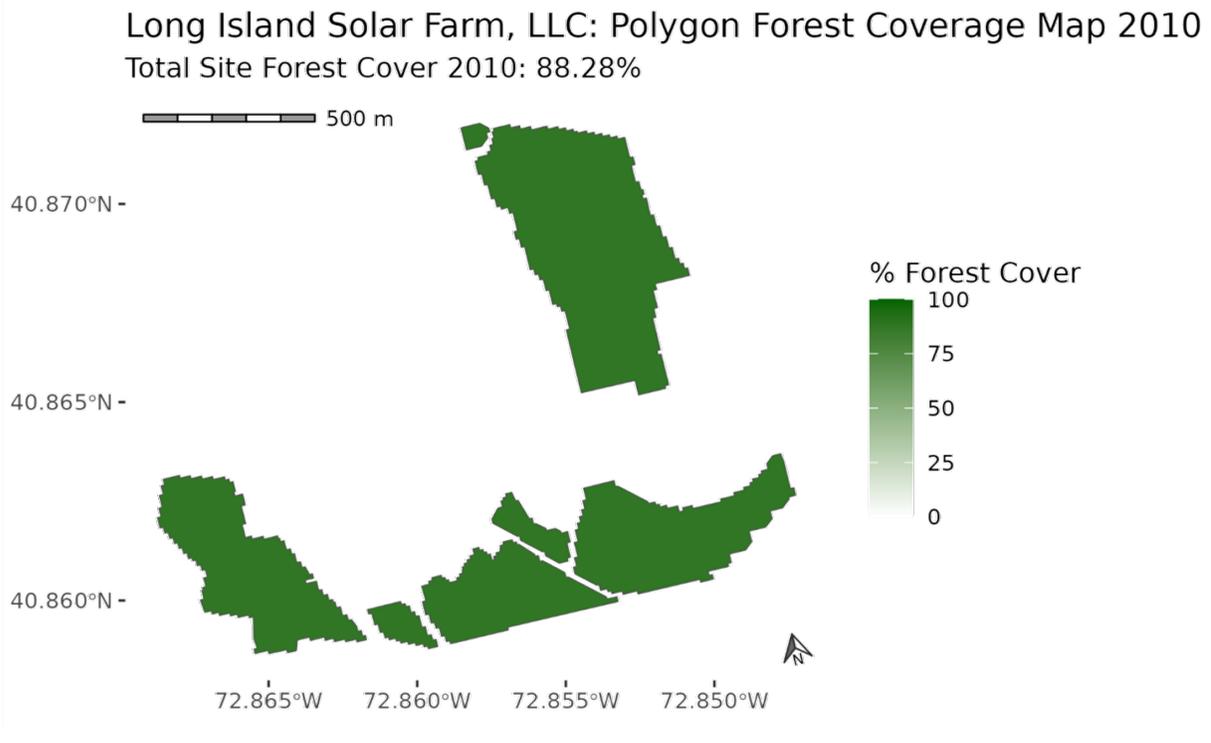
[2023 New York Forest Carbon Assessment Summary Report](#)

B1. What % of the FA is sited on forested land?

88.3% \geq 15%

B2. What was the average carbon stock of living vegetation on Forest Land within the FA in 2019?

61.5 Mg/ha



5 pts

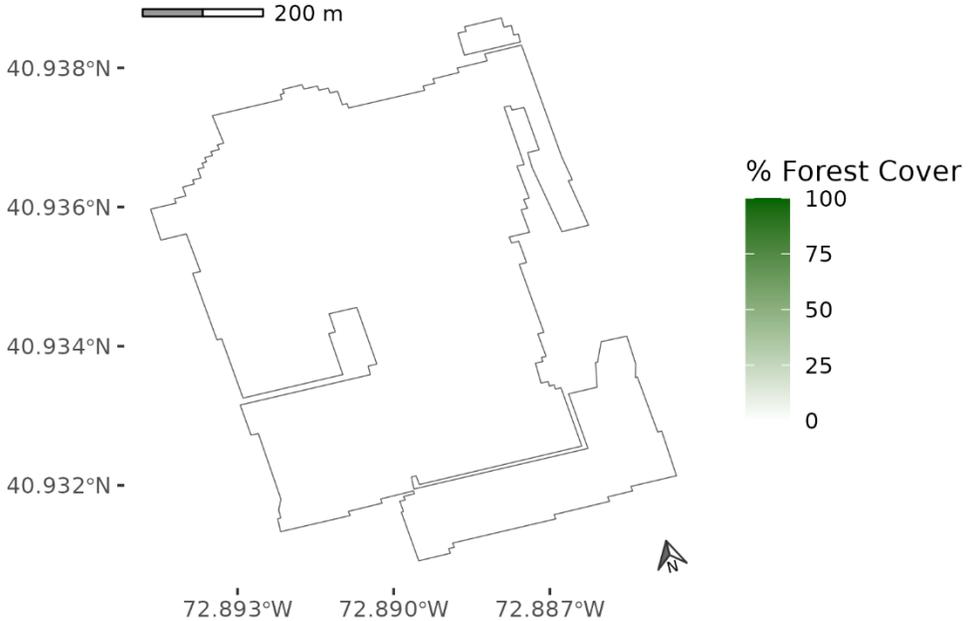
Project	Year	Forest Coverage (%)	Growing Forest (%)	Live C (Mg/ha)	Biomass Growth Rate (Mg/ha/year)	Points
Long Island Solar Farm, LLC	2010	88.3	74.2	61.5	1.6	5
Shoreham Solar Commons	2016	0	0	0	0	35

B1. What % of the FA is sited on forested land?

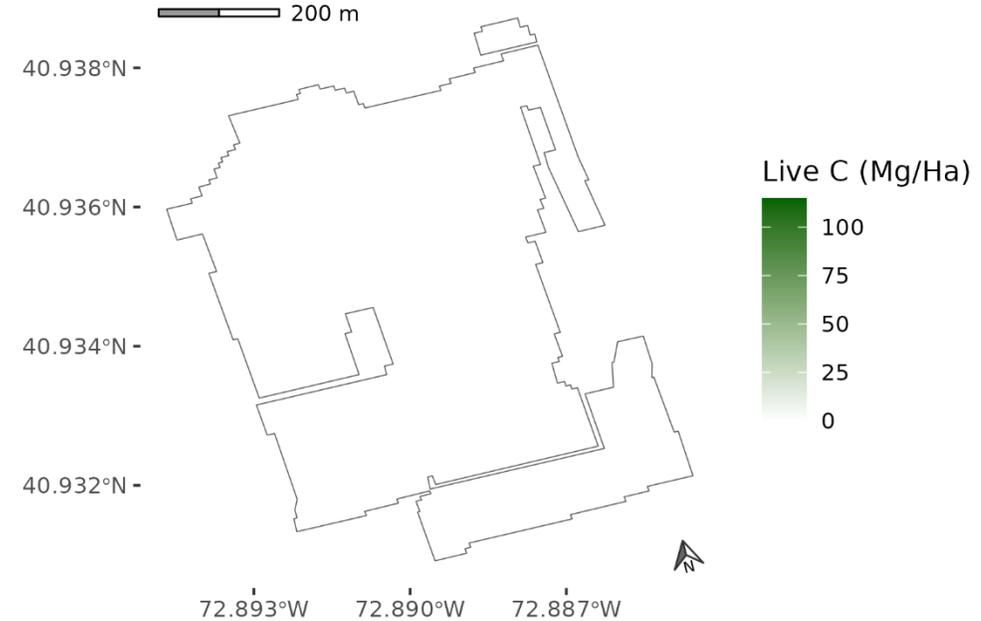
0% → <1%

B4. <1% is Forested Land. Receive 35 points and no Strategy List needed.

Shoreham Solar Commons: Polygon Forest Coverage Map 2016
Total Site Forest Cover 2016: 0%



Shoreham Solar Commons: 2016 Live C Map
Sitewide Mean Live C (Mg/Ha): 0



35 pts

Project	Year	Forest Coverage (%)	Growing Forest (%)	Live C (Mg/ha)	Biomass Growth Rate (Mg/ha/year)	Points
Long Island Solar Farm, LLC	2010	88.3	74.2	61.5	1.6	5
Shoreham Solar Commons	2016	0	0	0	0	35

2023 Scorecard Resources

Associated RESRFP23-1 Request for Proposals Documents

Appendix 2. RESRFP23-1 Smart Solar Siting Scorecard

- > Appendix 2. Exhibit 1. Smart Solar Siting Scorecard Workbook - [link](#)
- > Appendix 2. Exhibit 2. Scorecard Acronyms and Definitions - [link](#)
- > Appendix 2. Exhibit 3. Scorecard Resources - [link](#)

Attachment A. RESRFP23-1 Standard Form Agreement and Exhibits

- > Exhibit E. NYS Dept. of Agriculture and Markets Guidelines for Solar Energy Projects: Construction Mitigation for Agricultural Lands - [link](#)

NYS Agricultural Technical Working Group Resources:
<https://www.nyatwg.com/resources>

Thank You!

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