



NY-Sun

NY-Sun PV Trainers Network

Planning and Zoning for Solar

Presented by the
NY-Sun PV Trainers Network



About the PV Trainers Network

The NY-Sun PV Trainers Network aims to **lower the installation cost and expand adoption** of solar PV systems throughout the state.

training.ny-sun.ny.gov

Scale

Capacity



Residence
5-10 kW



Office
50 – 500 kW



Factory
1 MW+



Utility
2 MW+

Rooftop/Land Area



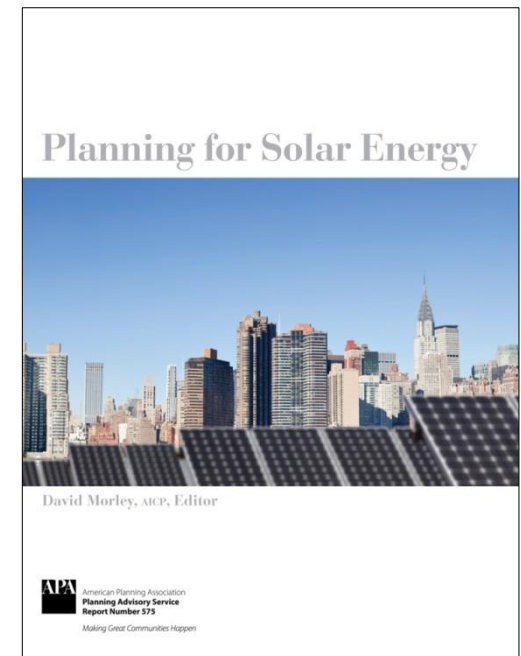
1 kW \approx 100 SqFt



1 MW \approx 6 acres

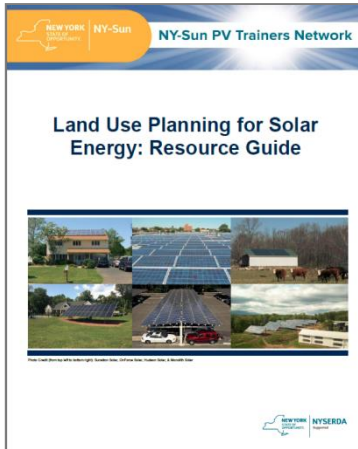
Land Use Planning for Solar Energy

- Policy Development
- Community Engagement
- Plan Making



Resources: NY-Sun PV Trainers Network

Land Use Planning for Solar Energy



https://training.ny-sun.ny.gov/images/PDFs/Land_Use_Planning_for_Solar_Energy.pdf

Policy Development Framework

Adopt a Resolution or Mayoral Proclamation that:

- Lists solar benefits and findings
- States intention to plan and regulate for solar
- Adopts a task force
- Authorizes research and studies
- Establishes a training program
- Authorizes an inter-municipal partnership
- Seeks state and federal funding and assistance
- Develop a community engagement process

Example: Statement of Purpose

New York State Model Solar Zoning Ordinance



- Taking advantage of a safe, abundant, renewable, and non-polluting energy resource;
- Decreasing the cost of energy to the owners of commercial and residential properties, including single-family houses; and
- Increasing employment and business development in the region by furthering the installation of Solar Energy Systems.

Additional Benefits

- Decreasing the use of fossil fuels, thereby reducing the carbon footprint of [Insert Name of Municipality];
- Investing in a locally-generated source of energy and increasing local economic value, rather than importing non-local fossil fuels;
- Aligning the laws and regulation of the community with several policies of the State of New York, particularly those that encourage distributed energy systems;
- Becoming more competitive for a number of state and federal grants and tax benefits;
- Making the community more resilient during storm events;
- Aiding the energy independence of the country;
- Diversifying energy resources to decrease dependence on the grid;
- Improving public health;
- Encouraging a sense of pride in the community;
- Encouraging investment in public infrastructure supportive of solar, such as generation facilities, grid-scale transmission infrastructure, and energy storage sites;
- Creating synergy between solar actions of the community and the sustainability provisions of the Comprehensive Plan; and/or
- **Creating synergy between solar and [other stated goals of the community pursuant to its Comprehensive Plan], [such as urban/downtown revitalization, vacant land management, creating a walkable, healthy community, etc.].**

Community Engagement

Designing the Process



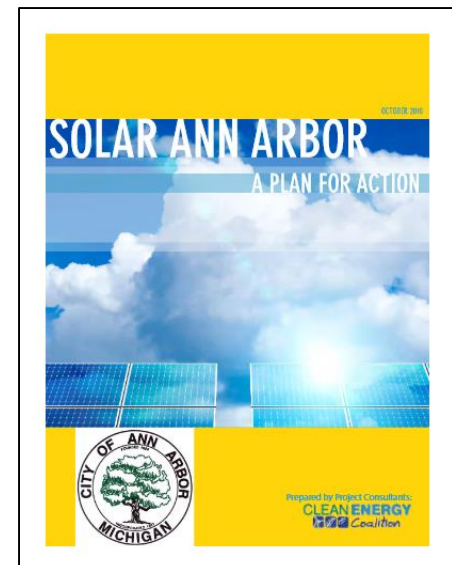
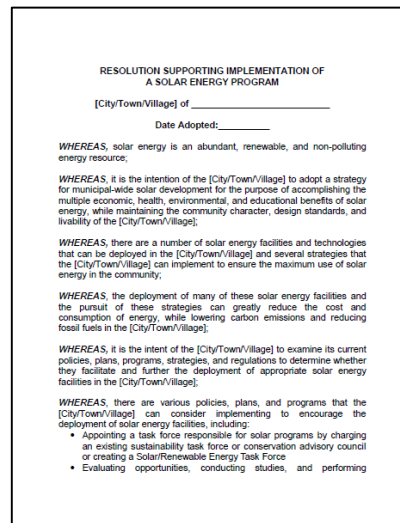
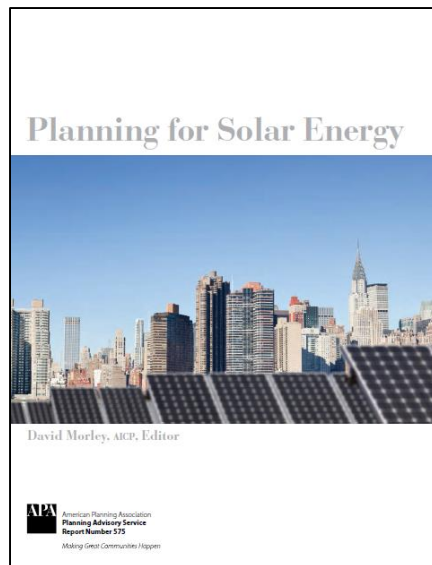
Community Engagement

Potential Competing Interests & Priorities



Planning to Accommodate Solar

- Add Solar Energy Component to Comp Plan
- Adopt Solar Energy Policy or Plan



Plan Making

Communitywide Comprehensive Plan

Nearighborhood
Plans

Corridor Plans

Special
District Plans

Green
Infrastructure
Plans

Energy Plan

Climate Action
Plan

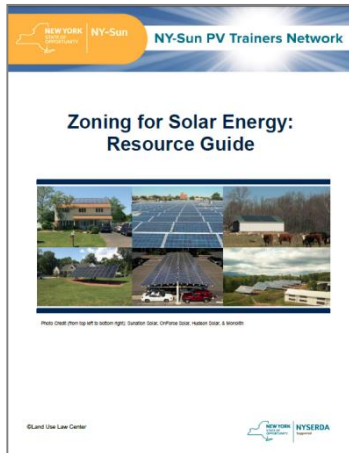
Zoning for Solar Energy

Zoning Must Be in Accordance with Comprehensive Plan



Photo Credit (from top left to bottom right): Sunation Solar, OnForce Solar, Hudson Solar, & Monolith Solar

New York Zoning Resources



Zoning for Solar Energy: Resource Guide

https://training.ny-sun.ny.gov/images/PDFs/Zoning_for_Solar_Energy_Resource_Guide.pdf

Zoning for Solar: Webinar

<https://training.ny-sun.ny.gov/zoning-for-solar-webinar>



New York Model Solar Energy Law

http://www.cuny.edu/about/resources/sustainability/reports/NYS_Model_Solar_Energy_LawToolkit_FINAL_final.pdf

**New York State
Model Solar Zoning
Ordinance**

Types of Solar Energy Systems



Building Integrated



Small-Scale Roof



Large-Scale Roof



Small-Scale Ground



Large-Scale Ground

Defining Solar: Four Factors To Consider

- Energy System Type
- Location Where System-Produced Energy is Used
- Bulk & Area of System Dimensions
- System Energy Capacity

System Type and Energy Capacity

PERMIT APPLICATION

NY State Unified Solar Permit

For Small-Scale Solar Electric Systems:

- Rated capacity of 25 kW or less
- Roof-mounted, ground-mounted, or pole-mounted

Link to Permit: <https://www.nyserda.ny.gov/solarguidebook>

Example: System Type & Energy Usage



New York State Model Solar Zoning Ordinance

- Building-Integrated Photovoltaic
- Roof-Mounted – on or off site use
- Ground-Mounted – primarily used on-site
- Large-Scale System → ground mounted & offsite energy consumption

Solar as Accessory Use



Solar as Accessory Structure

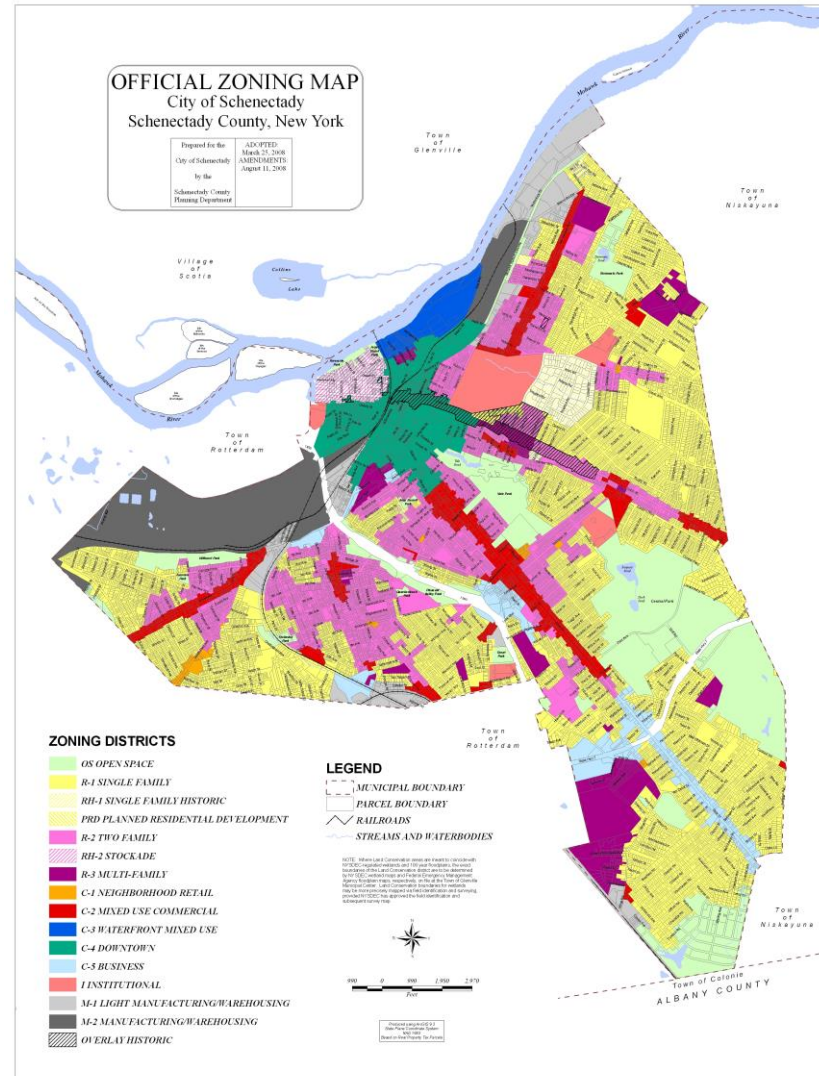


Solar as Special Use



Update Zoning Code

Siting: Determine which zoning districts to permit each defined system



Review and Approval Process

Project review and approval requirements generally intensify as impacts associated with permitted solar energy systems increase.

Example: Model Solar Energy Law

- Roof-mounted systems are permitted as an **accessory use** in all zoning districts when attached to lawfully permitted principal and accessory structures, subject to the requirements.
- Ground-mounted solar energy systems are permitted as an **accessory structure** in [*Insert district(s)*], subject to the requirements.
- *Large-scale solar energy systems are permitted through the issuance of a **special-use permit** within [*Insert district(s)*] subject to requirements.*
 - **Site plan** approval is required. *WAIVERS permitted.*

Reviewing Bulk & Area Requirements

SEC.	DISTRICT	MAXIMUM HEIGHT		MINIMUM REQUIREMENTS				MINIMUM YARDS (7)			
		FT.	STY.	LOT AREA Sq. Ft.	LOT WIDTH	LOT DEPTH	FRONT DEPTH	EACH SIDE YARD	TOTAL BOTH SIDES	REAR DEPTH	
1	R-1 Single Family Residential	35	2.5	20,000	100'	100'	30'	10'	30'	30'	
2	R-2 Two-Family Residential	35	2.5	7,000	50'	100'	20'	6'	16'	20'	
3	R-3 Multi-Family Residential	40	4	1 FAMILY: 7,000	50'	100'	20'	1,2,2.5 STORY:	6'	16'	20'
	2 FAMILY: 3,000@DU(1)			40'	3 OR 4 STORY:			15'	30'	20'	
	3+ FAMILY: 1,500@DU			40'							
7	C-3 Commercial			TOWN HOUSE: 2,000(2)							18'
4	B-1 Neighborhood Business	35(3)	2.5(3)	For Dwls: same as R-3 Other Bldgs: -- -- --			50'	NOTE (4)			
5	C-1 General Commercial	40(3)	3(3)				50'	NOTE (4)			
6	C-2 Central Commercial	45(3)	3				NOTE (4)				
8	M-1 Light Industrial	45(3)	3	(11) 1500 @DU	NONE	NONE	50'	20'	50'	NONE(5)	
9	M-2 Heavy Industrial	125(6)	--	(11) 1500 @DU	NONE	NONE	50'	20'	50'	NONE(5)	
10	FW Flodway	NO BUILDING PERMITTED		NONE	NONE	NONE	NO BUILDING EXECPT UTILITY				
10	FF Flod-Fringe	DEVELOPMENT SHALL BE UNDERTAKEN IN STRICT COMPLIANCE WITH FLOOD-PROOFING AND RELATED PROVISIONS CONTAINED IN ALL OTHER APPLICABLE CODES AND ORDINANCES.									

Development Standards

Some municipalities impose specific development standards to mitigate land use impacts associated with solar energy system

Development Standards for Accessory SEEs

Roof-Mounted:

- Max height
- Min tilt, angle
- Color & location restrictions



Ground-Mounted:

- Setback, yard requirements
- Max height
- Blending or screening



Development Standards for Principal-Use SESs

Requirements To Mitigate Impacts:

- Siting
- Height Limits
- Setbacks
- Screening
- Safety (fencing, signage)
- Utility Interconnection
- Required Studies (environmental, economic)
- Decommissioning/Site Restoration



Special Districts



Agricultural District Resources

Agricultural Districts Website

<http://www.agriculture.ny.gov/ap/agservices/agdistricts.html>

Guideline for Review of Local Zoning and Planning Laws

<http://www.agriculture.ny.gov/ap/agservices/guidancedocuments/305-aZoningGuidelines.pdf>

Guideline for Review of Local Laws Affecting Small Wind Energy Production Facilities and Solar Devices

http://www.agriculture.ny.gov/ap/agservices/guidancedocuments/Guidelines_for_Solar_and_Small_Wind_Energy_Facilities.pdf

Landowner Considerations for Solar Land Leases

http://www.agriculture.ny.gov/FactSheet/Solar_Land_Leases.pdf

Homenick, E. Sullivan County Real Property Tax Services, “Solar Array’s and Taxation”

https://s3.amazonaws.com/assets.cce.cornell.edu/attachments/12866/SOLAR_ARRAY%E2%80%99S.pdf?1452808160https://s3.amazonaws.com/assets.cce.cornell.edu/attachments/12866/SOLAR_ARRAY%E2%80%99S.pdf?1452808160

Resource: APA's Solar Planning & Zoning Data Search

The screenshot shows the American Planning Association (APA) website. At the top left is the APA logo with the tagline "American Planning Association" and "Making Great Communities Happen". A navigation menu includes links for "About APA", "Membership", "Events", "Education", "Outreach", "Resources", "Jobs & Practice", and "APAPanningB". A search bar is located on the right side of the header.

Below the header is a dark blue bar with the text "SolarOPs".

The main content area features a "Search Solar:" section with a search input field containing "Enter search word(s)" and a "GO" button.

Below the search bar is a "Geographic Region" dropdown menu. The selected region is "Solar Planning & Zoning Data Search". To the left of the text is a map of the United States with a globe icon.

The text below the map reads: "Welcome to the Solar Planning & Zoning Data Search! From this portal you can search hundreds of examples of solar-supportive plans, development regulations, and other planning-related implementation tools. Whether your community is large or small and has mild or harsh winters, you're likely to find some peers here that have taken steps that make it easier for residents and businesses to use solar energy."

At the bottom of the main content area, it says: "The Solar Planning & Zoning Data Search is a new pilot program. [Suggestions or comments?](#) Let us know."

The sidebar menu is located on the right side of the page and contains the following items:

- Type of Place (dropdown arrow)
 - City (633)
 - County (124)
 - State (80)
- Population Range (dropdown arrow)
 - <25K (291)
 - 100K to 250K (108)
 - 250K+ (120)
- Population Density (dropdown arrow)
 - <1,000/square mile (215)
 - 1,000-2,999/square mile (297)
 - 3,000-4,999/square mile (169)
 - >5,000/square mile (107)
- Tool Type (dropdown arrow)
 - A Map (5)
 - Comprehensive Plan (181)
 - Design Guidelines (29)
 - Development Guide (31)
 - Development Regulations (486)
 - Model Development Regulations or Plan Policy Statements (22)
 - Subarea Plan (8)
 - Sustainability Plan, Energy Plan, Climate Plan (76)
- Solar Practice (dropdown arrow)
 - Addresses Competing Priorities (105)
 - Limits Covenants, Conditions, and Restrictions (15)
 - Supports Accessory Solar Energy Use (655)
 - Supports Primary Solar Energy Use (206)
 - Supports Solar Access Protections (217)
 - Supports Solar Siting (212)
 - Supports Solar-Ready Homes (50)

www.planning.org/solar/data/

Available Training Topics

Creating and Implementing Your Solarize Campaign

Expanding Commercial Solar With a PACE Program

Introduction to Shared Solar

Introduction to Solar Policy Workshop

Land Use Planning for Solar Energy

Safety and Fire Considerations for Solar PV

Solar Procurement for Local Governments

Solar PV for Engineers and Architects

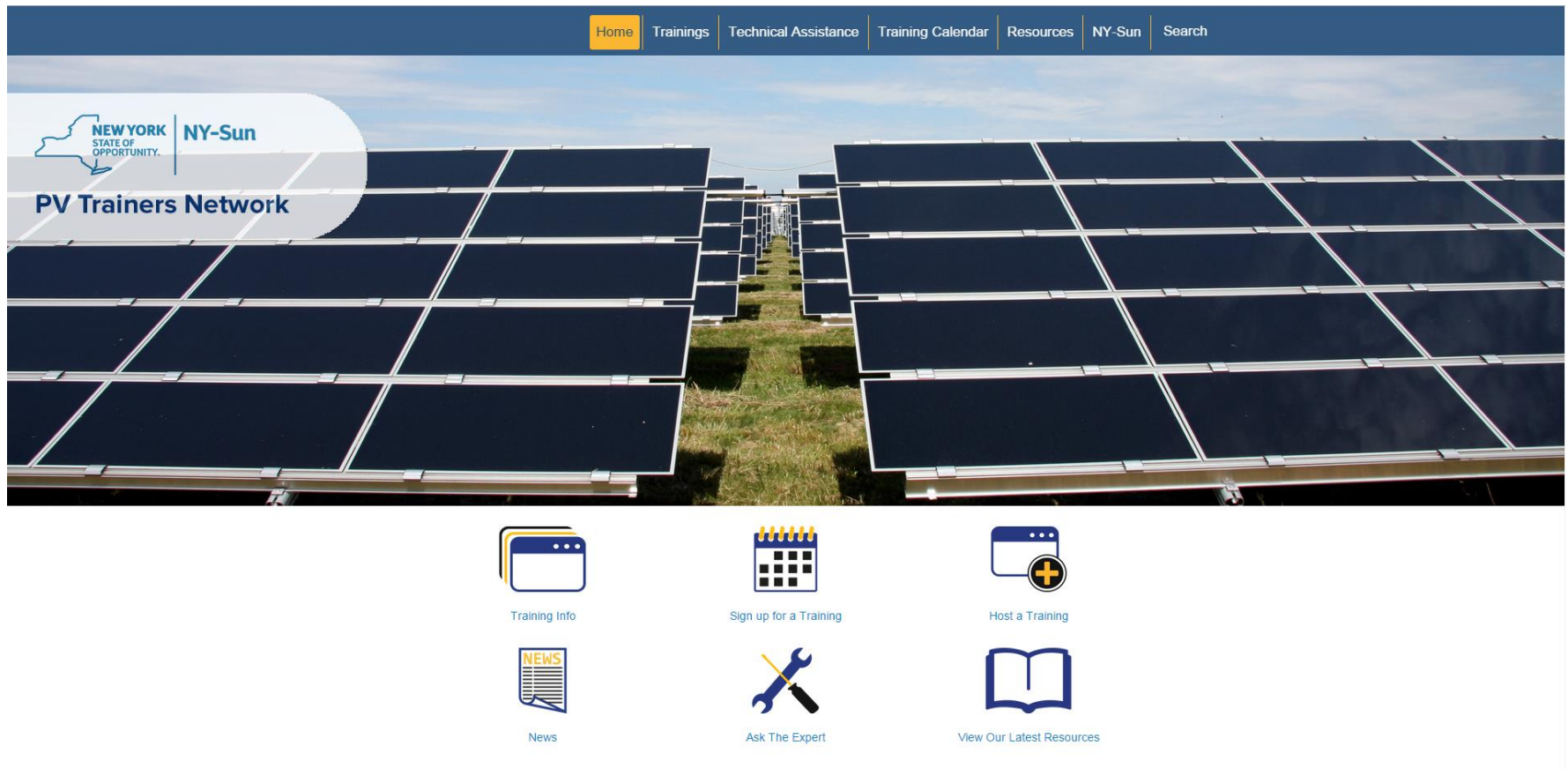
Solar PV Permitting and Inspection Methods

Streamlining Solar Permitting

Zoning for Solar Energy

<https://training.ny-sun.ny.gov>

Resources: NY-Sun PV Trainers Network



Visit: <https://training.ny-sun.ny.gov/>

Free Technical Assistance Support

PVTN can provide free technical assistance to municipal officials on solar related questions/issues. Topics include:

- Municipal Solar Procurement
- Solar Zoning Ordinance
- NYS Unified Solar Permit
- Solarize
- Shared Solar
- Solar Access
- Solar Design Standards
- Real Property Tax Exemption Section 487
- Large-scale Solar Development

Submit a request via the [Ask-the-Expert Portal](#) or Contact a PVTN Expert Directly

<https://training.ny-sun.ny.gov/technical-assistance/ask-the-expert>

NY State Solar Guidebook

Now Available!

- Understanding solar PV permitting and inspecting in NY State
- Residential Roof-top access and ventilation requirements
- Real Property Tax Law Section 487
- Land Lease Considerations for Solar
- Decommissioning Solar Factsheet
- Additional Resources

nyserdera.ny.gov/solarguidebook



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Thank You!

Contact us:

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