

PLANNING COMMUNITY SOLAR



CDRPC Local Government Workshop

January 9, 2019



WHAT IS COMMUNITY SOLAR?

- **COMMUNITY SOLAR IS AN ARRAY OF PANELS INSTALLED IN A SUNNY LOCATION.**
- **ANYONE IN THE AREA CAN ACCESS THE CLEAN ENERGY PRODUCED BY THESE SOLAR PANELS & GET CREDITS TOWARD THEIR ELECTRICITY BILLS**

ROLE OF LOCAL COMMUNITIES

- **Permitting & Inspection Practices**
- **Zoning Ordinances**
- **Can Either Inhibit or Support Solar Development** **Solar Soft Costs**
- **Silence is a barrier**

LOCAL AUTHORITY

The sole siting authority for solar projects under 25 MW resides at the local level rather than the state level

- Site Plan
- Special Use Permit



HOSTING CAPACITY MAPS & USEFUL LINKS

Hosting Capacity is the utility's estimate of new distributed generation (DG) resources that may be interconnected at a particular part of the distribution system without negatively impacting power quality or reliability under current configurations and without expensive system upgrades.

If the local electrical systems within a community appear to have development potential, the community should review and, if necessary, amend their comprehensive plans to address solar energy development.

MODEL SOLAR ENERGY LOCAL LAW

GUIDANCE DOCUMENT

Model Solar Energy Local Law



Model Solar Energy Local Law Instructions

1. The sole siting authority for solar projects under 25 MW resides at the local level rather than the state level. One purpose of this Model Solar Energy Local Law (Model Law) is to inform and facilitate local efforts to expand solar energy generation in a sustainable way. This Model Solar Energy Local Law regulates the installation, operation, maintenance, and decommissioning of solar energy systems. The Model Law is intended to be an “all-inclusive” ordinance to allow for a thorough review of all aspects of solar energy systems under typical zoning and land use regulations, including the State Environmental Quality Review Act. Municipalities are encouraged to review this Model Law, examine their local laws and regulations and the types, size range and number of solar energy projects proposed, and adopt a local law addressing the aspects of solar energy development that make the most sense for each municipality, deleting, modifying, or adding other provisions as appropriate.

ELEMENTS OF SITE PLAN REVIEW

Lot Size

Lot Coverage

Setbacks

Fencing Requirements

Screening & Visibility

Agricultural Resources

Emergency & Service Vehicle Access

Ownership Changes

Safety

UTILITY REQUIREMENTS

Underground
Requirement
Of Utilities Except
Main
Service
Connection to
Electrical Grid



UTILITY REQUIREMENTS



SIGNAGE

- Check proper sign construction
- Check for sign identifying PV power source system attributes at dc disconnect
- Check for sign identifying switch for alternative power system

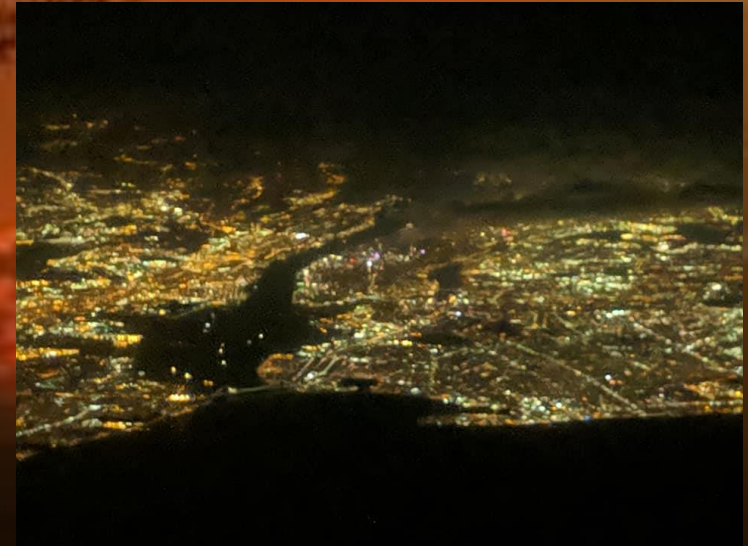
GLARE

A common misconception about solar photovoltaic (PV) panels is that they inherently cause or create "too much" glare, posing a nuisance to neighbors and a safety risk for pilots.

While solar PV systems can produce glare, light absorption - rather than reflection - is central to the function of solar PV panels.

<https://www.energy.gov/eere/solar/downloads/solar-pv-and-glare-factsheet>

GLARE



LIGHTING

Lighting of a Solar Energy System shall be limited to required safety & operational purposes and shall be reasonably shielded and downcast from abutting properties.

TREE CUTTING

Removal of existing trees larger than 6 inches in diameter should be minimized to the extent possible.



Solar panels cover 800 parking spots at Bristol Community College's Fall River, Mass., campus. (Fuss & O'Neill)

DECOMMISSIONING

- Solar Energy Systems abandoned and/or not producing electricity for a 1-year period to be removed at the owner and/or operators expense
- Cost of Removing Solar Energy System
- Time required for repair or damage to the property by the installation or removal of the Energy System

DECOMMISSIONING PLAN SURETY BOND

A decommissioning plan outlines required steps to remove the system, dispose of or recycle its components, and restore the land to its original state

In the event default of conditions of approval occur, security can be used for removal.

Amount of bond or security - plus 2% annual escalator

<https://www.nyserda.ny.gov/-/media/NYSun/.../Decommissioning-Solar-Systems.pdf>

DECOMMISSIONING PLAN

FACT SHEET

DECOMMISSIONING SOLAR PANEL SYSTEMS



NY-Sun

This fact sheet provides information to local governments and landowners on decommissioning of large-scale solar panel systems.

As local governments develop solar regulations and landowners negotiate land leases, it is important to understand the options for decommissioning solar panel systems and restoring project sites to their original status.

From a land use perspective, solar panel systems are generally considered large-scale when they constitute the primary use of the land, and can range from less than one acre in urban areas to 10 or more acres in rural areas. Depending on where they are sited, large-scale solar projects can have habitat, farmland, and aesthetic impacts. As a result, large-scale systems must often adhere to

What is a decommissioning plan?

Local governments may require to have a plan in place to remove solar panel systems at the end of their lifecycle, which is typically 20-40 years. A decommissioning plan outlines required steps to remove the system, dispose of or recycle its components, and restore the land to its original state. Plans may also include an estimated cost schedule and a form of decommissioning security (see Table 1).

What is the estimated cost of decommissioning?

Given the potential costs of decommissioning and land reclamation, it is reasonable for landowners and local governments to proactively consider system removal guarantees. A licensed professional engineer, preferably with solar development experience, can estimate decommissioning costs, which vary across the United States.

Table 1: Sample list of decommissioning tasks and estimated costs

Tasks	Estimated Cost (\$)
Remove Rack Wiring	\$2,459
Remove Panels	\$2,450
Dismantle Racks	\$12,350
Remove Electrical Equipment	\$1,850
Breakup and Remove Concrete Pads or Ballasts	\$1,500
Remove Racks	\$7,800
Remove Cable	\$6,500
Remove Ground Screws and Power Poles	\$13,850
Remove Fence	\$4,950
Grading	\$4,000
Seed Disturbed Areas	\$250
Truck to Recycling Center	\$2,250
Current Total	\$60,200
Total After 20 Years (2.5% inflation rate)	\$98,900



NYSERDA

RESOURCES

Community Solar for Your Home NYSERDA

Introduction to Community Solar – NY-Sun PV Trainers Network

Model Solar Energy Local Law – NY-Sun

Planning for Solar Energy – APA

Sustainable CUNY

New York State Hosting Capacity Map

NYSERDA Unified Solar Permit

Planning for Solar Energy



David Morley, AICP, Editor

APA American Planning Association
Planning Advisory Service
Report Number 575
Making Great Communities Happen



New York State Model Solar Energy Law

May 2016

Thank You!

