Municipal Solar Policy

Presented by the
NY-Sun PV Trainers Network

Who’s in the room?

A. Land Use Board member
B. Municipal Planning/Building Department staff
C. Elected officials
D. County government
E. State Agency
F. Solar industry
G. Developer
H. Planners, Attorneys or other professional
I. Community member
J. Other

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
Program Covers Entire State

• Services available across NYS
• Network partners across NYS

NY-Sun Initiative

Statewide Goal of 3 GW

$961 Million Total Budget

↓ Stimulate the Market Place
↓ Reduce Soft Costs

• 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 that want it

NY State Solar Market

Solar PV in New York State

NYS Weighted Average Installed Cost

* 2016 figures through May 26, 2016

NY State Solar Market

NSB Weighted Avg. Installed Cost

* 2016 figures through May 26, 2016
US Solar Costs

Solar Technology Background

System Components

The Grid Tied Solar Electric System

Solar Panels
Sunlight creates DC Electricity

Inverter
Changes DC Power to AC
(AC Power used in Home)

Net Metering
Excess (Unused) power turns
your meter backward and
travels back into the grid.
Utility issues credits for power
produced.

Scale

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Rooftop/Land Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residence</td>
<td>1 kW ≈ 100 SqFt</td>
</tr>
<tr>
<td>Office</td>
<td>1 MW+</td>
</tr>
<tr>
<td>Factory</td>
<td>1 MW+</td>
</tr>
<tr>
<td>Utility</td>
<td>2 MW+</td>
</tr>
</tbody>
</table>

1 kW ≈ 100 SqFt
1 MW ≈ 6 acres

Column1
Non-Hardware Cost
Hardware Cost
$ per Watt
$0.00
$0.20
$0.40
$0.60
$0.80
$1.00
$1.20
$1.40
$1.60
$1.80
$2.00
$2.20
$2.40
$2.60
$2.80
$3.00
$3.20
$3.40
$3.60
$3.80
$4.00

$ per Watt
$0.00
$0.50
$1.00
$1.50
$2.00
$2.50
$3.00
$3.50
$4.00

Other Paperwork
Permitting & Inspection
Financing Costs
Customer Acquisition
Installation Labor

US Solar Cost
$9
$10
$11
$12

9
10
11
12

1 kW ≈ 100 SqFt
1 MW ≈ 6 acres
Net Metering

Net metering allows customers with PV to export power to the grid during times of excess generation, and receive credits that can be applied to later electricity usage.

PV Production vs Energy Usage

Net Metering Credits: Like Rollover Minutes
Example Net Metering Bill with Credit

- **July Reading (Actual)**: 56351
- **June Reading (Actual)**: 56451
- **Total Usage KWh 32 Days**: 100

**Net Metering Summary**
- Prior Credit: -50
- Actual Metered Kwh: -100
- New Cumulative Credit: -150
- Billed KWH: 0

**Annual Reconciliation Month**: April

**Delivery Charges**
- Basic Service Charge: 0 KWH @ 0.XXX
- First: 0
- Energy Cost Adj: 0 KWH @ 0.XXX
- SBC/RPS Chg: 0 KWH @ 0.XXX
- Government surcharges: 0.5
- Total Delivery Charges: 17.00

**Current Electric Charges**: 17.50

**Cannot be offset with solar**

**Community Distributed Generation (Shared Solar)**

**What is Shared Solar?**
- Expands access to solar (and other clean energy) generation to utility customers who cannot site distributed generation directly
- Enables multiple customers to receive net metering credits from a single clean energy project
- Allows transferring of excess net metering credits to another customer
- Intended to allow residents and businesses to buy shares in larger community solar projects

**Size, Location & Cost of Shared Solar**

**How large is a shared solar project?**
- Limited to 2 MW*
  - 1 kW = 100 SqFt
  - 1 MW = 6 acres
  - 2 MW project serves 200-400 households

**Where can a project be located?**
- Private land
- Public land
- Rooftops

**What is estimated cost?**
- 2 MW project: $6-8 million for project development (before incentives)
Real Property Tax Exemption

“Real Property which includes a solar energy system... shall be exempt from taxation to the extent of any increase in the value thereof by reason of the inclusion of such solar energy system for a period of 15 years...” - RPTL Section 487

- Special ad valorem and special assessments are not exempt (sewer, water, fire, library, etc.)
- After a 15-year period, the solar energy system is fully taxable at the assessed value at that point in time
- All municipalities, counties and school districts are automatically included in PTE unless they opt out through local law or resolution. This law is applicable until 2024.
- More than 92% of all taxing jurisdictions continue to offer this exemption.

Solar impacts the local economy

Jobs
- 8,250 solar jobs in NYS (3rd most in US)
- 631 solar companies (4th most in US)

Value of the solar industry
- $877 million in NYS in 2015

Local indirect impacts of solar project spending

Jurisdictions that opt out of RPTL § 487 will likely not collect substantial tax revenue

- Opting out makes investing in solar economically unfeasible for residential, commercial and larger-scale solar.
- Solar developers avoid jurisdictions that have opted out of the exemption.
- A full list of municipalities, counties and school districts that opted out of RPTL § 487 can be found on the NYS Department of Taxation and Finance’s website
  https://www.tax.ny.gov/research/property/legal/localop/487opt.htm

Process & Calculation of the Exemption

Property owners must file an application for exemption from county, city, town and school district taxes with the municipality’s assessor who prepares the property assessment used in levying county, city or town and school district taxes.

Calculation of Exemption*

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Total cost of solar energy system:</td>
<td>$10,000</td>
</tr>
<tr>
<td>b.</td>
<td>Incremental cost of system:</td>
<td>$4,000</td>
</tr>
<tr>
<td>c.</td>
<td>Ratio of incremental cost to total cost</td>
<td>40%</td>
</tr>
<tr>
<td>d.</td>
<td>Increase in assessed value of property attributable to addition of solar energy system:</td>
<td>$6,000</td>
</tr>
<tr>
<td>e.</td>
<td>Assessed value exempt due to addition of system</td>
<td>$2,400</td>
</tr>
</tbody>
</table>

*Methodology for calculating the exemption is further explained in the NYS Department of Taxation and Finance’s website

Payment in Lieu of Taxes (PILOT)

- Jurisdictions that have not opted out of the PTE may use Payment In Lieu of Taxes (PILOT) with specific projects.
- PILOTS can capture revenue for large projects without harming the residential market.
- PILOTS have typically been annual payments related to the system capacity ($/MW).
- PILOTS may not exceed a 15 year term and the value of taxes that would be paid without the exemption provided by the PTE.
- After a period of 15 years, the solar project is fully taxable at the assessed value at that point in time (e.g. the assessed value at year 16).

PILOT Development for Wind Projects

Example of PILOT agreement for wind project in Franklin County

- EDP Renewables
- Jericho Rise Wind Farm (77.7 MW)
- $40,000/Year
- $183,000/Year
- Total PILOT = $4,000/MW/Year
- County of Franklin Industrial Development Agency (IDA)
- $43,500/Year
- Chateaugay Central School District
- $43,500/Year
- Town of Bellmont
- Town of Chateaugay

Range of PILOTS for Solar Projects in Massachusetts

In Massachusetts, PILOTS for solar projects range between $4,000/MW and $27,000/MW.

<table>
<thead>
<tr>
<th>Location</th>
<th>Project Size</th>
<th>Price/MW</th>
<th>Terms</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Holyoke, MA</td>
<td>4.5 MW</td>
<td>$5,000</td>
<td>Valid for 20 years; payment made twice a year</td>
<td><a href="http://www.mne.org/sites/default/files/files/resource/Holyoke-2925">http://www.mne.org/sites/default/files/files/resource/Holyoke-2925</a> ONLY.pdf</td>
</tr>
<tr>
<td>Berkley, MA</td>
<td>2.9 MW</td>
<td>$7,000</td>
<td>Valid for 20 years; payment made twice a year</td>
<td><a href="http://www.mne.org/sites/default/files/files/resource/Berkley-2925">http://www.mne.org/sites/default/files/files/resource/Berkley-2925</a> ONLY.pdf</td>
</tr>
<tr>
<td>Holyoke, MA</td>
<td>Not specified</td>
<td>$5,000</td>
<td>Valid for 20 years; payment made twice a year</td>
<td><a href="http://www.mne.org/sites/default/files/files/resource/Holyoke-2925">http://www.mne.org/sites/default/files/files/resource/Holyoke-2925</a> ONLY.pdf</td>
</tr>
<tr>
<td>Rochester, MA</td>
<td>4.2 MW</td>
<td>$9,524</td>
<td>Valid for 20 years; payment made twice a year</td>
<td><a href="http://www.mne.org/sites/default/files/files/resource/Rochester-2925">http://www.mne.org/sites/default/files/files/resource/Rochester-2925</a> ONLY.pdf</td>
</tr>
<tr>
<td>Worcester, MA</td>
<td>3.3 MW</td>
<td>$12,000</td>
<td>Valid for 20 years; payment made quarterly</td>
<td><a href="http://www.mne.org/sites/default/files/files/resource/Worcester-2925">http://www.mne.org/sites/default/files/files/resource/Worcester-2925</a> ONLY.pdf</td>
</tr>
<tr>
<td>Stone, MA</td>
<td>Not specified</td>
<td>$7,500</td>
<td>Valid for 20 years; payment made quarterly</td>
<td><a href="http://www.mne.org/sites/default/files/files/resource/Stone-2925">http://www.mne.org/sites/default/files/files/resource/Stone-2925</a> ONLY.pdf</td>
</tr>
<tr>
<td>Uxbridge, MA</td>
<td>2.5 MW</td>
<td>$17,000</td>
<td>Valid for 20 years; payment made quarterly</td>
<td><a href="http://www.mne.org/sites/default/files/files/resource/Uxbridge-2925">http://www.mne.org/sites/default/files/files/resource/Uxbridge-2925</a> ONLY.pdf</td>
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</table>

Average: $7,671
PILOT Development

- PILOTs add to the costs of solar projects
- Jurisdictions should clearly outline their stance on PTE and PILOTs as any uncertainty can jeopardize a project.
- Developers should contact the taxing jurisdictions about the project in advance to find out the various stances on PILOTs.
- If developer or property owner formally contacts a jurisdiction through written notice that they intend to construct a solar energy system within the municipality, the municipality has 60 days from receiving the notice of intent to notify the developer or owner that it intends to require a PILOT.
- The owner or developer is not required to use a specific form or language when giving a municipality notice of its intent to construct a solar project.
- The value of the PILOT is usually based on the developers project costs, expected cash-flows and the developer’s financing/investor requirements.
- If a jurisdiction requires a PILOT higher than a developer can pay, the jurisdiction will most likely lose the project.
- Jurisdictions may want to understand the taxable value of the project after year 15, so they can plan their future expected revenues accordingly.

Assessing Property Value of Solar

Taxing jurisdictions that opt out of the exemption need to assess any increase in the value of the property due to the solar PV system in order to calculate the appropriate tax amount.

Methodologies for assessing value of solar:

- **Comparable sales/market approach**: assessor compares the market value or sale price of similar properties located within the same jurisdiction to measure the property value added due to a solar PV system
- **Cost approach**: the value of a solar PV is measured based on the systems cost or the cost to replace it
- **Income approach**: value of solar based on current and projected revenue from power generation

Resources for a detailed explanation of methods of assessing the value of solar:

Property Tax Resources

  https://www.tax.ny.gov/research/property/assess/manuals/vol4/g61/sec4_D1/sec487.htm
- NYSEDA. “Factsheet: Understanding the Real Property Tax Law Section 487.”
  https://training.ny-sun.gov/images/PDFs/SUN_GEN-osislaw487-ts-1-v1_FINAL.PDF
  nysenda.ny.gov/-/media/Files/EERP/Renewables/wind-energy-toolkit.pdf

Land Use Planning for Solar Energy

- Plan Making
- Policy Development
- Community Engagement
Delegation of Authority

- **Legislature**
  - Adopt Land Use Laws and Plans
  - Site Plan Approval
  - Subdivision Approvals
  - Special Permits

- **Zoning Board of Appeals**
  - Variances
  - Interpretation
  - Special Permits

- **Planning Board**
  - Advises on Zoning Adoption
  - Site Plan Approval
  - Subdivision Approvals
  - Special Permits

- **Building Inspector/Zoning Enforcement Office**
  - Building permits
  - Zoning Determination

Role of Local Gov’t & Planning

1,550+ local jurisdictions in NY
With land use authority

Source: NREL

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

Policy Development

Adopt a Resolution or Mayoral Proclamation
What Are the Benefits of Solar?

A. Econ. Development & job creation
B. Environ. & public health benefits
C. Reduced & stabilized energy costs
D. Energy independence & resilience
E. Value to utility
F. Community pride
G. Other

Example: Statement of Purpose

- 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.].

Appoint a Task Force

- Charge an existing sustainability task force or conservation advisory council
- Work with the Regional Planning Board or County
- Create a Solar/Renewable Energy Task Force
Who sits on the Task Force?

- Municipal Officials
- Solar industry
- Chamber of Commerce
- HOAs
- Environmental/Non-profit Community
- Historic Preservation Representative
- Developers
- Landowners & Farmers
- Planning Board Member (required for Comp. Plan)

What is the Task Force’s Role?

- Conducting studies & performing research
- Establishing a training program
- Partnering with adjacent communities
- Leveraging state and federal technical assistance grants
- Developing a community engagement process
- Amending the comprehensive plan
- Considering regulatory changes

Best Practices

Task Force

- Who has a Task Force?
- Who sits on your Task Force?
- What is the role of your Task Force?
Community Engagement

Designing the Process

POSITIONS vs. INTERESTS

What are POSITIONS?
Parties’ assertions, wants, demands, offers, and solutions

What are INTERESTS?
A person’s needs and concerns

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

- Neighborhood Plans
- Corridor Plans
- Special District Plans
- Green Infrastructure Plans
- Energy Plan
- Climate Action Plan

Resources: NY-Sun PV Trainers Network

Land Use Planning for Solar Energy

[Link](https://training.ny-sun.ny.gov/images/PDFs/Land_Use_Planning_for_Solar_Energy.pdf)

Zoning for Solar Energy

Zoning Must Be in Accordance with Comprehensive Plan

New York Zoning Resources


Zoning for Solar: Webinar

[Link](https://training.ny-sun.ny.gov/zoning-for-solar/webinar)

New York Model Solar Zoning Law

[Link](http://www.cuny.edu/about/resources/sustainability/reports/NYS_Model_Solar_Energy_LawToolkit_FINAL_final.pdf)
Types of Solar Energy Systems

- Building Integrated
  - Small-Scale Roof
  - Large-Scale Roof
- Small-Scale Ground
- Large-Scale Ground

Example Zoning Chapter

- Purpose
- Definitions
- Establishment of Districts & Zoning Map
- District Use, Lot and Bulk Regulations
- Special Permit Regulations
- Supplemental Regulations
- Off-street Parking, Driveways and Loading Areas
- Nonconforming Uses, Buildings and Structures
- Site Plan and Special Permit Review & Approval

Example: Model Solar Zoning Law

Section 1: Authority
Section 2: Statement of Purpose
Section 3: Definitions
Section 4: Applicability
Section 5: Solar as an Accessory Use/Structure
Section 6: Approval Standards for Large-Scale Solar Systems as a Special Use
Section 7: Abandonment and Decommissioning
Section 8: Enforcement
Section 9: Severability

Zoning Definitions Section

Defining Solar Energy Systems

- Solar Electric Systems
- Ground-Mounted Solar Facility
- Principal Solar Energy System
- Solar Energy Facility
- Medium Solar Energy System
- Building-Integrated Photovoltaic Systems
- Large-Sized Solar Energy System

Defining Solar: Four Factors To Consider

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

Defining Solar: System Type

- Roof- or Building-Mounted
- Ground-Mounted or Freestanding
- Building-Integrated

Defining Solar: Energy Usage

Energy is Used:

- Entirely Onsite with Some Net Metering
- Entirely Offsite
- Onsite & Offsite
Defining Solar: Bulk & Area

Define according to physical size of system:

- Min. or Max. Footprint or Disturbance Zone
- Measured in: acres, square feet, % lot coverage, or % of primary structure’s footprint

Defining Solar: Energy Capacity

Minimum or Maximum kW:

- Generating Capacity
- Rated Capacity
- Rated Storage Volume

Example: System Type and Energy Capacity

For Small-Scale Solar Electric Systems:

- Rated capacity of 12 kW or less
- Roof-Mounted

New York State Unified Solar Permit

Expedited Solar Permit Process for Small-Scale Photovoltaic Systems

http://www.cuny.edu/about/resources/sustainability/nyssolar/NYSolarSmartPermitWorkshops.html

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
Example: System Type, Energy Usage, Energy Capacity

Large SES
- Ground-mounted
- Rated capacity of ≥ 200 kW
- Offsite use (sell to power grid)

Medium SES
- Ground-mounted & rated capacity of < 200 kW but > 5 kW
- Roof-mounted & rated capacity of > 5 kW & serving single or multiple lots or parcels

Small SES
- ≤ 5 kW & serving single parcel or lot

Example: Model Solar Zoning 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 requirements.

- Ground-mounted solar energy systems that use electricity on site 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.

Update Zoning Code

Siting: Determine which zoning districts to permit each defined system

Amending District Use Regulations to Allow Solar

Land Uses Allowed in Districts As:

1. Principal Use
2. Accessory Use
3. Secondary Use
4. Special Use
1. Solar as Principal Use

2. Solar as Accessory Use/Structure

3. Solar as Secondary Use

4. Solar as Special Use
Example: Model Solar Zoning 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.

Review and Approval Process

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

Land Use Review Options

For Building-Integrated:
• Building parts exempt from land use review
• Subject to building code compliance

For Small-Scale, Accessory Systems:
• Review by Zoning Enforcement Officer
Land Use Review Options

For Small-Scale, Accessory Systems:
• Must be 12 kW or less & roof-mounted
• Exempt from zoning review
• Expedited review for combined building and electrical permit

Amending Site Plan Requirements

Major Site Plan Review
Minor Site Plan Review

Example

Minor Site Plan Review for:
• Ground-mounted
• Between 2,000 sq.ft. & 10 acres in size

Preliminary & Final Site Plan Review for:
• > 10 acres in size
• Site plan must include: transmission line/equipment location, changes to existing substations, how facility will connect to grid, landscape maintenance plan, decommissioning plan, etc.
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.

- Height and setback requirements from underlying zoning
  - Height exemptions granted to building-mounted mechanical devices or equipment apply

Ground-mounted systems:
- Size: Systems are limited to [Insert Lot Coverage Percentage].
  - Panel surface area shall be included in total lot coverage
- Setback & Height: Requirements of the zoning district.
- Location: Installed in rear or side yards (residential districts only)

Large-scale solar energy systems:
- Height and Setback:
  - requirements of the underlying zoning district.
  - Additional restrictions may be imposed during the special-use permit process.
- Minimum lot size of [Insert Size Requirement] square feet.
- Size: Systems are limited to [Insert Lot Coverage Percentage].
  - Panel surface area shall be included in total lot coverage
Development Standards

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

Development Standards for Accessory SESs

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

Example: Model Solar Zoning Law

1) Aesthetics. Roof-Mounted Solar Energy System installations shall incorporate, when feasible, the following design requirements:

Panels facing the front yard must be mounted at the same angle as the roof’s surface with a maximum distance of 18 inches between the roof and highest edge of the system.
Municipalities particularly concerned with aesthetics may also consider adding the following provisions:

- **Solar Panels affixed to a flat roof shall be placed below the line of sight from a public right of way.**
- **Solar Energy Equipment shall be installed inside walls and attic spaces to reduce their visual impact.**
- **If Solar Energy Equipment is visible from a public right of way, it shall be compatible with the color scheme of the underlying structure.**

**Large Scale System**

- Enclosed by fencing to prevent unauthorized access.
- Warning signs with the owner’s contact information
- Other requirements:
  - Copies of easements and other agreements,
  - Blueprints showing the layout of the solar installation signed by a Professional Engineer or Registered Architect, equipment specification sheets,
  - Property Operation and Maintenance Plan, and Decommissioning Plan.

**Abandonment & Decommissioning**

**Decommissioning Plan**

- How the removal of all infrastructure and the remediation of soil and vegetation shall be conducted to return the parcel to its original state
- Expected timeline for execution
- Cost estimate detailing the projected cost
- If not decommissioned, the municipality may remove the system and restore the property and impose a lien

**Abandonment**

- Considered abandoned after [Insert Time Period] without electrical energy generation and must be removed from the property. Applications for extensions.
**Agricultural Districts**

- **AUTHORITY:** Article 25-AA of the Agriculture and Markets Law
- **PROCESS:** Landowner initiates, preliminary county review, state certification, and county adoption
- **COVERAGE:**
  - 224 agricultural districts
  - 24,130 farms
  - 8.8 million acres
  - about 30 percent of the State’s total land area

**Farmer Benefits & Protections**

- Preferential real property tax treatment
- Protections against
  - overly restrictive local laws
  - government funded acquisition or construction projects
  - private nuisance suits involving agricultural practices

**Benefits & Protections for Solar**

- Solar devices that do not exceed 110% of the farm’s anticipated electrical needs are on-farm equipment.
  - If considered structure or building by local government, then it is an on-farm building.
  - On farm buildings are exempt from some local land use requirements, such as site plan review.

**Generally Unreasonable Local Laws**

- Site plan review, special use permits or non-conforming use requirements
- Height restrictions and excessive setbacks from buildings and property lines
- Long Environmental Assessment Form (EAF)
  - Designated Type II actions & do not require preparation of EAF and are not subject SEQR
- Visual impact assessments
Reasonable Local Laws

- Model streamlined site plan review process
  - Shorter Time Period
  - Less Submission Requirements
- Building Permit
  - Requirements for local building permits and certificates of occupancy to ensure that health and safety requirements are met are also generally not unreasonably restrictive.

Agricultural District Resources

- Agricultural Districts Website
- Guideline for Review of Local Zoning and Planning Laws
- Landowner Considerations for Solar Land Leases
- 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%95S.pdf?1452808160

Recommended Process for Review

- Sketch of the parcel on a location map (e.g., tax map) showing boundaries and existing features
- Show the proposed location and arrangement on the site
- Copies of plans or drawings prepared by the manufacturer
- Provide a description of the project and a narrative of the intended use
- A legible electrical diagram showing all major system components

Review by Additional Local Boards

Architectural Review Board
Example

SES exempt from design review if:
- On 1- or 2-family structures w/o variance
- Rated capacity ≤ 12 kW
- Mounted parallel to roof or with minimal tilt

Example: Historic Standards

Solar in Historic Districts or Treatment of individual historic properties
- Solar panels and BIPV systems are permitted by right on accessory structures that do not contribute to the historic significance of the site.
- Solar panels shall not alter a historic site’s character defining features.
- All modifications to site must be reversible to reveal the original appearance of site.
- Exposed solar energy equipment must be compatible with the underlying structure.
  - Panels shall be placed flush to the roof’s surface
  - BIPV shall complement the styles and materials of the building.
- The issuance of a Certificate of Appropriateness is required by a historic review board for ground-mounted systems, BIPV, exterior improvements to all historic structures.
  - Preference given to solar panels placed on new construction or additions.
  - Ground-mounted systems shall be screened from the public right of way by fencing or vegetation

Review by Additional Local Boards

Historic Preservation
Commission

Resource: APA’s Solar Planning & Zoning Data Search

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

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

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

NY State Solar Guidebook

Scheduled for release in Fall 2016. Will include resources on:

- Land Use Planning and Solar
- Land Lease Considerations for Solar
- Agricultural Areas and Solar
- Developing and Reviewing Zoning Ordinance
- Solar Permitting
- Real Property Tax Law Section 487
- Decommissioning Solar
- List of other resources including webinars and online guides
Clean Energy Communities Program

$16 million available for municipalities to apply for funding and technical assistance to implement energy efficiency, renewable, and sustainable development projects

Who Can Apply
• Elected officials or employees of local governments across New York State.

How it Works
• Communities that complete 4 out of the 10 High Impact Actions and meet all other eligibility requirements.
• At no cost, Clean Energy Communities Coordinators are available to help local leaders develop proposals, apply, and provide technical assistance.

How to Apply
• Local governments must submit documentation for each of the four completed High Impact Actions.
• Local governments that earn the Clean Energy Communities designation must complete the online application for additional funding.
• Read the Clean Energy Communities Guidance Document.

Deadline
• Applications for grant funding will be reviewed until 4:00 p.m. Eastern Time on September 30, 2019, or until funds are exhausted, whichever comes first.

Contact
• cec@nyserda.ny.gov for assistance navigating the program.

http://www.nyserda.ny.gov/All-Programs/Programs/Clean-Energy-Communities

Ten Eligible Actions
1. Benchmarking energy use at municipal and large privately owned buildings.
2. Performing energy efficiency and renewable energy upgrades to municipal buildings.
3. Replacing street lights with energy efficient LED lighting.
5. Undertaking a community-based Solarize campaign to reduce solar project costs through joint purchasing.
6. Providing energy code enforcement training to code officers.
7. Earning Climate Smart Communities Certification by reducing the community’s impact on the environment.
8. Passing a local law to allow aggregation of residents to gain greater choice and control over energy use as a group (called Community Choice Aggregation).
9. Installing electric vehicle charging stations and using alternative fuel vehicles, such as hybrid and electric cars, for municipal business.
10. Establishing an Energize NY Finance Program that enables long-term, affordable Property Assessed Clean Energy financing for energy efficiency and renewable energy projects at commercial buildings and not-for-profits.

http://www.nyserda.ny.gov/All-Programs/Programs/Clean-Energy-Communities

Thank You!

Contact us:
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