

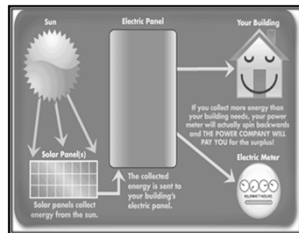


Solar Energy Regulation

A Division of the New York Department of State

What is solar/PV?

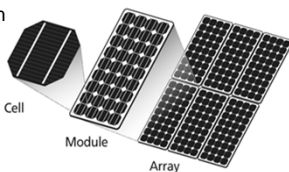
- Technology that converts sunlight into electricity
- Primarily used for grid-connected electricity
- A single module can power an emergency telephone
- A house or power plant requires modules be arranged in multiples as arrays



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Terms to enlighten

- Solar collectors: devices or systems that use solar radiation as energy source for generation of electricity or transfer of stored heat
- Cell: basic element of PV system
- Module/Panel: multiple cells electrically connected
- Array: multiple modules/panels connected to create system



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Types of installations

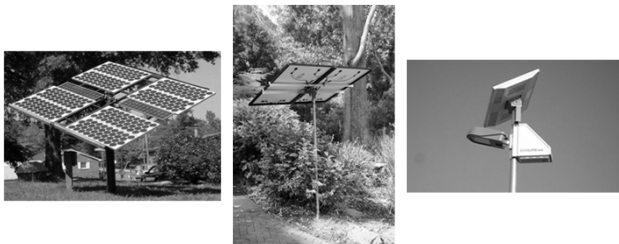
- Roof-Mount: panels installed directly on roof or rack system
 - Solar shingles: PV cells designed to look like asphalt shingles
- Ground-Mount System: specialized racking system anchored to ground and wired to connect to building
 - Accessory Use: subordinate to primary use or building, located on same lot



Residential roof-mounted



Pole-mounted

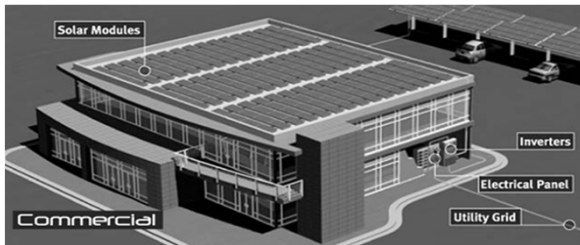


Solar bus huts

No external wiring to the electric distribution network



Commercial roof arrays



Awning



Long Island Solar Farm

- Largest solar power plant in Eastern U.S.
- 200 acre site
- 164,312 panels
- Peak capacity 32 MW
- Annual generation equivalent to annual usage of ~4,500 homes



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Division of Local Government Services

Suffolk County “power lots”

- Over 60,000 modules on newly built carports
- 17 MW generated
 - can power ~1,850 homes
- On right: H. Lee Dennison Building, Hauppauge
 - 1.75 MW generated
 - 7,737 modules on 24 arrays



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Skidmore College, Saratoga Springs

- One of largest solar arrays in state
 - 8 acres
 - 2.6 MW
 - 6,950 Ground-mount solar panels
- 12% of College’s energy needs
 - 200 to 400 homes
 - 412 cars
- NYSUN
- NYSERDA



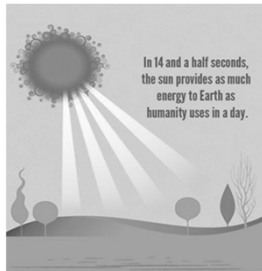
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Benefits

Why solar/PV

- No consumption of natural resources
- No pollutants generated
- Sustainable
- Renewable
- Sunshine is free



Financial benefits

- Rapidly falling prices have made solar more affordable than ever
- Average price of completed PV system has dropped by 33% since 2011
- System owner may benefit from federal and state tax credits
- Property tax exemptions
- Net metering receive credit for excess energy produced
- Installation of PV system may increase property value
- Home energy savings
 - 7kW system (south-facing) can typically offset 70-80% of electricity needs
 - Two-panel PV water system saves about 2,800 kWh of electricity annually

Prepare for solar development in your community



Establish clear goals

- If community desires solar, reduce obstacles to planning approvals and/or permitting
- Use visioning process to integrate solar into:
 - Comprehensive plan
 - Green infrastructure plan
 - Climate change plan
 - Energy plan

Adopt solar language in code(s)

- Clearly define types of solar collectors and identify those desired in your community
- Benefits
 - Reduce risk of unwanted or inappropriate development
 - Increase project conformity and likelihood that collective community solar desires will be met
 - Increase development opportunity for property owners
- NYS Model Solar Energy Law: www.cuny.edu/about/resources/sustainability/reports/NYS_Model_Solar_Energy_LawToolkit_FINAL_final.pdf

Clearly define permitting process

- Review existing permit process for inefficiencies
- Consider fair permitting fee
 - Residential: fixed flat fee or set dollar amount/Watt
 - Commercial: rate for staff time plus additional review costs
- Adoption of NY Unified Solar Permit for <25kW capacity
 - Checklist to ensure that systems fall within certain parameters and comply with local and state codes

www.nysed.gov/Statewide-Initiatives/Cleaner-Greener-Communities/Implementing-Smart-Development-Projects/-/media/Files/About/Statewide-Initiatives/CGC-Plans/Guidance/NYS-unified-solar-permit.pdf

Regulatory options

Public Service Law Article 10

- Absolute local authority over land use decisions diminished for "major electric generating facilities" of at least 25 MW
- State Siting Board
 - Determines locations
 - Authority to override local restrictions in appropriate cases
 - 60 days to deem application complete
 - Final decision within 1 year for new projects or 6 months if modifying certain existing facilities



Apple's 100-acre 20 MW facility, Maiden, NC

What is a moratorium?

Local law or ordinance

- Temporarily suspends landowner's right to obtain development approval(s)
- Address circumstances not addressed by current laws

Community considers revisions

- Comprehensive plan; and/or
- Land use regulations

Key elements

- Reasonable time frame relative to action being addressed
- Specified time when moratorium expires
- Valid public purpose
- Addresses situation where burden imposed is shared substantially by public at large
- Strict adherence to statutory adoption procedures

Duration

Must be relatively short

- Not excessively long or unfixd
 - Specify duration
- Relate closely to actions necessary to address the issues

Municipality must actively engage in planning or developing regulations

- Lake Illyria Corp. v. Town of Gardiner; Duke v. Town of Huntington; and Rubin v. McAlevy.

Upheld

- 2 Year: Wind energy projects
 - Variance
 - 90-day extension
 - Highly technical nature
 - Ecogen, LLC v. Town of Italy

Local planning and zoning authority

- Comprehensive plan
- Regulations
 - Zoning
 - Site plan review
 - Special use permit
- Review elements
 - Access to solar energy
 - Casting shadows
 - Blocking view sheds
 - Causing glare
 - Rain run-off

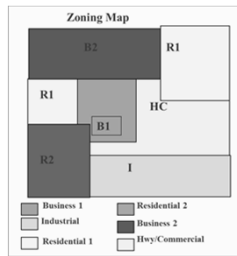


Comprehensive plan

- Expression of a municipality's goals and recommended actions to achieve those goals
- Outline for orderly growth, providing continued guidance for decision-making
- Document focusing on immediate and long-range protection, enhancement, growth and development

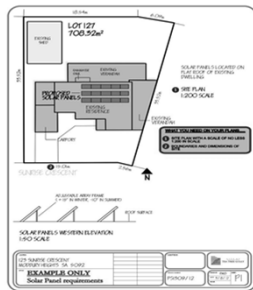
Zoning

- Regulates use, density, and placement of structures on a parcel
 - Ground-mounted structures may have dimensional restrictions
- Original intent to prevent fire hazards and other threats to health and safety
- Municipalities with zoning must have a zoning board of appeals



Site plan review

- Rendering, drawing, or sketch with project's proposed design and layout on a single parcel
- Proposal must be in accordance with comprehensive plan
- Zoning not necessary



Subdivision

- Site and maintain buildings & vegetation so direct sunlight reaches southern exposure of greatest number of buildings.
- Layout where maximum number of buildings receive direct sunlight
- Orient roads on east-west axis
- Highest densities south-facing
- Lower densities north-facing.

Removal

Decommissioning

- Municipalities can address abandonment, decommissioning or “cessation of activity” within their regulations
- For example, “Must ensure site will be restored to useful, nonhazardous condition, including completion time frame for complete removal of collectors, mounts and other associated equipment and facilities”
- May require decommissioning plans, especially for commercial scale projects

Decommissioning

Town of Tonawanda §215-182 Abandonment or Decommissioning

A. Unsafe, inoperable, and/or abandoned solar energy systems and solar energy systems for which a **special use permit has expired** shall be removed by the owner. A solar energy system shall be **deemed abandoned when it fails to produce energy for at least one (1) year.**

B. For **all utility-scale solar energy systems**, the applicant shall submit a decommissioning plan for review and approval as part of the special use permit application. The **decommissioning plan shall identify the anticipated life of the project, method and process for removing all components of the solar energy system and returning the site to its pre-existing condition**, and estimated decommissioning costs, including any salvage value.

Performance bonds

• As a general rule, municipalities cannot require a performance or maintenance bond for a permitted project without expresses statutory authorization

• Town Law §277 Subdivision review

9. Performance bond or other security.

d. Term of security agreement. Any such performance bond or security agreement shall run for a term to be fixed by the planning board, **but in no case for a longer term than three years**, provided, however, that the term of such performance bond or security agreement may be extended by the planning board with consent of the parties thereto.

Temporary special use permit

• Specific authorization is needed

– Case law has established that temporal conditions are not permissible.

• Time limitations allow opportunity to reappraise

– No longer used for its originally intended purpose

– No longer producing energy

• If permit is not renewed the use/structure is no longer considered an allowed use

– May remove structure following normal zoning enforcement

Removal of unsafe structures

Town Law §130. Town ordinances.

- 16. Unsafe buildings and collapsed structures.
 - Providing for the removal or repair of buildings in business, industrial and residential sections that, from any cause, may now be or shall hereafter become dangerous or unsafe to the public.
 - g. For the assessment of all costs and expense incurred by the town in connection with the proceedings to remove or secure, including the cost of actually removing said building or structure, against the land on which said buildings or structures are located.

Attractive nuisances

- A landowner may be held liable for injuries to children trespassing on the land if the injury is caused by an object on the land that is likely to attract children.

Private lease agreements

- Municipalities have no jurisdiction
- May be able to provide some guidance
 - BMP, allow non-profits and non-governmental agencies provide guidance
 - Private attorneys
- *Landowner Considerations for Solar Land Leases Fact Sheet*
 - *NYS Sun*
- *Solar Farm Lease Q & A*
 - *Cornell Cooperative Extension, Sullivan Alliance for Sustainable Development, Sullivan County Real Property Department, and NY-Sun.*

Agricultural Considerations

- How does it affect the farm's agricultural assessment in a state certified Agricultural District
- Right-to-Farm protections
 - Agricultural and Markets Law §305-a
- Can I graze sheep under the panels?
 - Does this mean the land is still in agricultural use?
 - Is this allowed by the solar company?
- Is this the best use of the land?
- Special considerations for removal/decommissioning plans

Firefighter Safety

- Firefighters must often access roofs for fire suppression and heat/smoke ventilation
 - During daylight, 120-600 volts of energized DC current could be in the array, conduits, and grid tied system
 - At night, even spot lights on fire apparatus can generate some voltage
- Emergency disconnect should be turned off before firefighters approach conduits, collectors, or arrays



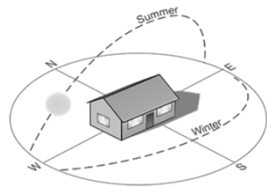
Other considerations for roof-mounted panels

- Distribution of mounting points
- Most panels weigh 20-50 lbs
- Distributed properly, only 3-4 lbs per square foot of load added
- Wind uplift and sail effect
- "Setbacks" from edge and peak of roof for path for firefighters (see below)



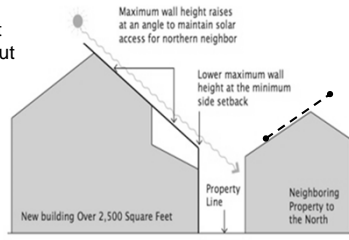
www.nyseda.ny.gov/-/media/NYSun/files/Contractor-Resources/Residential-roof-top-access-and-ventilation-requirements.pdf

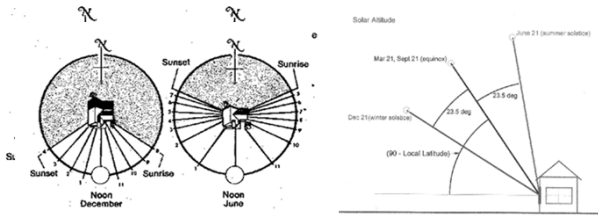
Access & Siting



Access

- Access: ability of one property to receive sunlight across property lines without obstruction
 - Calculated using sun path diagram
- Shading: shade from vegetation or building on adjoining properties





SOLAR MAP [Going Solar](#) - [Permitting and Zoning](#) - [Interconnection](#) - [Financing](#) - [Resources](#) - [NYC Solar](#) - [About](#)

Find Your Solar Potential

Enter your address

or jump to: New York State

Which best describes you?

Residential Commercial

Investor Homeowner/renter

Available map layers

Installed Capacity

100 MW

474 MW

1,200 MW

2,300 MW

3,400 MW

7,000 MW

17,717 MW

Solar Statistics Calculator in Your Area Advanced Tools

Sustainable CUNY's NY Solar Map and Portal

<https://nysolarmap.com>

Compatibility with neighborhood character

- Do not negatively impact adjacent uses
- Visually compatible
 - For example, potential impact includes glare or reflection, which might be nuisance to other property owner or impair visibility of motor vehicle drivers
- Use sensitivity especially areas containing unique architectural styles or historic structures



Historic sites

- Avoid primary facade
- Low-profile panels
 - Solar shingles laminates, glazing, or similar materials should not replace original or historic materials
 - Avoid installation in windows, on walls, siding, and shutters
 - Panels should be flat and not alter slope of roof
- Must be reversible



Solar panels on a historic home in Cambridge, Massachusetts

Minimize visibility

- Panels and mechanical equipment should be as unobtrusive as possible
- Not visible from public thoroughfare
- Compatible in color to established roof materials
- Hidden below and behind parapet walls and dormers, or on rear-facing roofs



Solar friendly access provisions

- Prohibition of conditions, covenants, and restrictions:
 - Prevent homeowners' associations from barring or placing undue burden on installation of solar energy systems
- Solar easements
 - Agreement with adjacent landowner(s) to ensure sunlight reaches property
- Other regulations in planning and zoning process that preserve solar access

Agricultural & Environmental Areas

Prohibit or avoid installation:

- Farmland, prime or unique soils, or soils of statewide or local significance
- Wetlands
- Critical Environmental Areas



NYS Department of Agriculture & Markets:

- Guidelines for Agricultural Mitigation for Solar Energy Projects
https://www.agriculture.ny.gov/ap/agservices/Solar_Energy_Guidelines.pdf

Ownership & access

Ownership options

- Direct: Residential customer owned system
 - Customer incurs all costs
 - Customer avoids energy costs
 - Net metering excess generation credits back to grid
 - Direct incentives through NY-Sun paid to your contractor
 - 30% Federal Income Tax Income Credit, 25% NY State Tax Credit not to exceed \$5,000 for your Primary Residence

Ownership options

- Third-Party: Power purchase agreement between customer and developer
 - Investor receives 30% Federal Income Tax Credit, and Five Year accelerated depreciation. Customer receives 25% NY State Income Tax Credit
 - No upfront cost to customer, or costs operate and maintain system
 - Predictable payments, long term contracts

Group purchasing

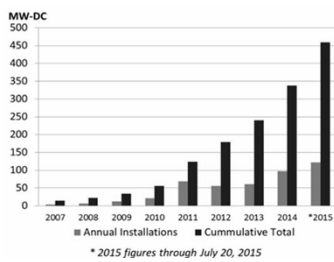
- Often called "solar bulk purchase," "solar group purchase," "SunShare," or "Solarize"
- Consortium based on 'economy of scale'
- Guides homeowners with joint purchase of solar systems
- NYSolar Smart Program, Sustainable CUNY
 - Solarize Huntington, Solarize Brooklyn CB6 and SunShare

Community distributed generation

- Governor's Reforming the Energy Vision or REV Initiative
 - Community Shared Renewables Program
 - www.governor.ny.gov/news/governor-cuomo-announces-expanded-access-renewable-energy-millions-new-yorkers
- Phase I (10/19/15-4/30/16): promoted low-income customer participation and installations with the power grid benefiting most from local power production.
- Phase II (5/1/16): No restrictions and available throughout entire utility service territories.

Incentives

NYS SOLAR GROWTH



NYSolar Smart is a strategic effort led by Sustainable CUNY of the City University of NY that supports Federal, State and NYC solar initiatives to strategically remove barriers to large scale solar deployment.

NY-SUN initiative

- Nearly \$1 billion commitment from governor
- Ensures coordinated and well-funded solar energy expansion
- Brings together and expands existing programs administered by:
 - NYS Energy Research and Development Authority (NYSERDA)
 - Long Island Power Authority (LIPA)
 - New York Power Authority (NYPA)
- Provides long-term funding to existing businesses and to attract new solar investments for economic growth
- Expand deployment of state’s solar capacity and transform NY’s solar industry to sustainable and subsidy-free sector

NY Sun

- Incentives
 - Residential and Small Commercial systems up to 200KW
 - <http://ny-sun.ny.gov/For-Installers/Megawatt-Block-Incentive-Dashboard>
 - Commercial & Industrial Systems up to 2MW
 - <http://ny-sun.ny.gov/For-Installers/CI-Megawatt-Block-Incentive-Structure-and-Dashboard>
- Sales tax exemptions
 - NYS offers a statewide sales tax exemption on solar systems
 - Local and county government solar sales tax rates
 - www.tax.ny.gov/pdf/publications/sales/pub718cs.pdf?_ga=1.41831329.2042903433.1419280618

K-solar

- Component of NY-SUN
- Partnership between NYPA and NYSERDA
- Program helps school districts utilize solar by providing free services
 - Researches potential cost savings and negotiates purchasing agreements



www.nypa.gov/k-solar/

NYS rebates and incentives

- Net metering for photovoltaic and wind technologies
- Distributed generation rule applies to residential systems < 25 kW
- Interconnection agreement and application filed with customer's utility
- NY's investor-owned utilities must offer net metering on first-come, first-served basis to residents that install PV or other renewable generation system < 25 kW
 - Farms and businesses may net meter systems < 2 MW

NYS real property tax exemptions

- NYS has a real property tax exemption Form RP 487 from NYS Department of Taxation and Finance.
http://www.tax.ny.gov/pdf/current_forms/orpts/rp487_fill_in.pdf
- Local governments and school districts may opt out and include the PV system in the assessment. Following link to a list of opted out
<http://www.tax.ny.gov/research/property/legal/localop/487opt.htm>
- NYC has a real property tax abatement program
http://www.nyc.gov/html/dob/html/sustainability/solar_panels.shtml

PILOT agreements

- Municipalities that opt out may enter into contracts with property owners for a PILOT (payment in lieu of taxes)
 - Annual payments may not exceed amount otherwise payable without the exemption
 - PILOT agreement shall not operate for more than 15 years
 - time allowed for the exception
- NY SUN Solar PILOT Toolkit
 - Assist NYS municipalities considering PILOT agreements for Community Solar projects larger than 1 MW

NY-SUN PV Trainers Network

- Home: <https://training.ny-sun.ny.gov/>
- Calendar: <https://training.ny-sun.ny.gov/training-events-calendar/range.listevents/>
- Resources: <https://training.ny-sun.ny.gov/resources>
- Resource Guide: https://training.ny-sun.ny.gov/images/PDFs/Zoning_for_Solar_Energy_Resource_Guide.pdf
- "Ask the expert:" <https://training.ny-sun.ny.gov/technical-assistance/ask-the-expert?view=ticket&layout=open>

Contact information

NYS Department of State

- Training Unit (518) 473-3355
- Counsel's Office (518) 474-6740
- Email: localgov@dps.ny.gov
- Website: www.dps.ny.gov
www.dps.ny.gov/lq/lut/index.html

NYS Energy Research & Development Authority

- (518) 862-1090
- Email: info@nyserda.ny.gov
- Website: www.nyserda.ny.gov/

Local Law Filing

(Use this form to file a local law with the Secretary of State.)

Text of law should be given as amended. Do not include matter being eliminated and do not use italics or underlining to indicate new matter.

County City Town Village
(Select one:)

of Maybrook

FILED
STATE RECORDS

JAN 26 2015

DEPARTMENT OF STATE

Local Law No. 1 of the year 20 15

A local law amending Chapter 210 ("Zoning") of the Code of the Village of Maybrook to regulate the
(Insert Title)
use of solar, ground or pole mounted solar array within the Village of Maybrook

Be it enacted by the Board of Trustees of the
(Name of Legislative Body)

County City Town Village
(Select one:)

of Maybrook

as follows:

SECTION 1. FINDINGS.

The Board of Trustees of the Village of Maybrook finds that it would be beneficial to the Village to provide for requirements and limitations on the use of solar, ground or pole mounted solar array to provide the residents with the opportunity to utilize solar energy systems and equipment.

SECTION 2. PURPOSE.

- A. Solar energy is a renewable and non-polluting energy resource that can prevent fossil fuel emissions and reduce a municipality's energy load. Energy generated from solar energy systems can be used to offset energy demand on the grid where excess solar power is generated.
- B. The use of solar energy equipment for the purpose of providing electricity and energy for heating and/or cooling is a priority and is a necessary component of the Village of Maybrook's long-term sustainability agenda.
- C. This local law aims to promote the accommodation of solar energy systems and equipment and the provision for adequate sunlight and convenience of access necessary therefor.

(If additional space is needed, attach pages the same size as this sheet, and number each.)

D. The purpose of this legislation is to balance the potential impact on neighbors when solar collectors may be installed near their property while preserving the rights of property owners to install solar collection systems without excess regulation. In particular, this legislation is intended to apply to freestanding, ground-mounted, or pole-mounted solar energy system installations over a certain height and based upon certain placement.

SECTION 3. SOLAR ENERGY.

Chapter 210 ("Zoning") is hereby amended to include a new Article XII, entitled "Solar Energy", which shall include the following language:

§ 210-68. Definitions.

As used in this section, the following terms shall have the meanings as indicated:

Accessory Structure – A structure, the use of which is customarily incidental and subordinate to the principal building, and is located on the same lot or premises as the principal building.

Alternative Energy System – Structure, equipment devices or construction techniques for the production of heat, light, cooling, electricity or other forms of energy for use on site and which may be attached to or separate from the principal structure.

Building-Integrated Photovoltaic (BIPV) Systems – A solar energy system that consists of integrating photovoltaic modules into the building structure, such as the roof or the façade and which does not alter the relief of the roof or façade.

Collective Solar – Solar installations owned collectively through a homeowners association, "adopt-a-solar-panel" programs, or other similar arrangements.

Flush-Mounted Solar Panel – Photovoltaic panels and tiles that are installed flush to the surface of a roof and which cannot be angled or raised.

Freestanding or Ground-Mounted Solar Energy System – A solar energy system that is directly installed on the ground and is not attached or affixed to an existing structure.

Net-Metering – A billing arrangement that allows solar customers to get credit for excess electricity that they generate and deliver back to the grid so that they only pay for their net electricity usage at the end of the month.

Permit Granting Authority – The Village of Maybrook authority authorized to grant permits for the installation of alternative energy systems.

Photovoltaic (PV) Systems – A solar energy system that produces electricity by the use of semiconductor devices, called photovoltaic cells that generate electricity whenever light strikes them.

Qualified Solar Installer – A person who has skills and knowledge related to the construction and operation of solar electrical equipment and installations, and has received safety training on the hazards involved. Persons who are on the list of eligible photovoltaic installers maintained by the New York State Energy Research and Development Authority (NYSERDA), or who are certified as a solar installer by the North American Board of Certified Energy Practitioners (NABCEP), shall be deemed to be qualified solar installers for the purposes of this definition. Persons who are not on NYSEERDA's list of eligible installers or NABCEP's list of certified installers may be deemed to be qualified solar installers if the Village of Maybrook determines such persons have had adequate training to determine the degree and extent of the hazard and the personal protective equipment and job planning necessary to perform the installation safely. Such training shall include the proper use of special precautionary techniques and personal protective equipment, as well as the skills and techniques necessary to distinguish exposed energized parts from other parts of electrical equipment and to determine the nominal voltage of exposed live parts.

Rooftop or Building-Mounted Solar System – A solar power system in which solar panels are mounted on top of the structure of a roof either as a flush-mounted system or as modules fixed to frames which can be tilted toward the south at an optimal angle.

Setback – The distance from a side lot line or rear lot line of a parcel within which a free standing or ground mounted solar energy system is installed. No solar energy systems shall be permitted on the front of any structures or within the required front yard setback.

Small-Scale Solar – For purposes of this section, the term "small-scale solar" refers to solar photovoltaic systems that produce up to ten kilowatts (kW) per hour of energy or solar-thermal systems which serve the building to which they are attached, and do not provide energy for any other buildings.

Solar Access – Space open to the sun and clear of overhangs or shade including the orientation of streets and lots to the sun as to permit the use of active and/or passive solar energy systems on individual properties.

Solar Collector – A solar photovoltaic cell, panel or array or any solar hot air or solar energy collector which relies upon solar radiation as an energy source for the generation of electricity or transfer of stored energy to heat, air or water.

Solar Easement – An easement recorded pursuant to New York Real Property Law § 335-b, the purpose of which is to secure the right to receive sunlight across real property of another for continued access to sunlight necessary to operate a solar collector.

Solar Energy Equipment/System – Solar collectors, controls, energy storage devices, heat pumps, heat exchangers, and other materials, hardware or equipment necessary to the process by which solar radiation is collected, converted into another form of energy, stored, protected from unnecessary dissipation and distributed. Solar systems include solar thermal, photovoltaic and concentrated solar.

Solar, Ground or Pole-Mounted Solar Array – Any solar collector, controls, solar energy device, heat exchanges or solar thermal energy system which is directly installed on the ground and not affixed to an existing structure.

Solar Panel – A device for the direct conversion of solar energy into electricity.

Solar Storage Battery – A device that stores energy from the sun and makes it available in an electrical form.

Solar-Thermal Systems – Solar thermal systems directly heat water or other liquid using sunlight. The heated liquid is used for such purposes as space heating and cooling, domestic hot water, and heating pool water.

§ 210-69. Applicability.

A. The requirements of this section shall apply to all solar collective system installations modified or installed after the effective date of this section.

B. Solar collector system installations for which a valid building permit has been issued or for which installation has commenced before the effective date of this section shall not be required to meet the requirements of this section.

C. All solar collective systems shall be designed, erected and installed in accordance with all applicable codes, regulations and industry standards as referenced in the New York State Building Code and the Village of Maybrook Code.

D. Solar collectors shall be permitted only to provide power for use by owners, lessees, tenants, residents or other occupants of the premises on which they are erected, but nothing contained in this provision shall be construed to prohibit “collective solar” installations or the sale of excess power through a “net billing” or “net metering” arrangement in accordance with New York Public Service Law § 66-j or similar State or Federal law regulation.

§ 210-70. Permit Required.

A. Rooftop and building-mounted solar collectors and Flush-Mounted Photovoltaic Panels shall require a building permit from the Village Building Inspector. The Building Inspector shall have sole authority for determining compliance of the installation with State building codes related to such structures.

B. Solar, ground or pole mounted solar arrays are permitted as accessory structures in all zoning districts of the Village subject to the following conditions:

1. Building-Integrated Photovoltaic (BIPV) Systems: BIPV systems are permitted outright in all zoning districts.
 2. Ground-Mounted and Free Standing Solar Collectors: Ground-mounted and free standing solar collectors are permitted as accessory structures in all zoning districts of the Village, subject to the following conditions which shall be processed and enforced by the Village Building Inspector:
 - a. Building permits are required for the installation of all ground-mounted and free standing solar collectors.
 - b. The location of the solar collectors shall be subject to the setback requirements and limitations set forth on the Tables of Dimensional Regulations for each applicable district. No ground-mounted or freestanding solar collectors shall be permitted in the front yard in any residential district. Where no minimum setback requirements are provided the minimum setback shall be 10 feet.
 - c. The height of the solar collector, including any supporting structures, shall not exceed 20 feet when oriented at maximum tilt.
 - d. Solar energy equipment shall be located in a manner to reasonably minimize view blockage for surrounding properties and shading of property to the north, while still providing adequate solar access for collectors.
 - e. Freestanding solar energy collectors shall be screened when possible and practicable through the use of architectural features, earth berms, landscaping or other screening which will harmonize with the character of the property and surrounding area.
- C. The Building Inspector shall have authority to determine compliance with the requirements set forth in this provision and shall have approval authority with respect to the screening requirement set forth above. Consideration shall be made regarding glare or other adverse effects on neighboring properties when determining compliance with these provisions.
- D. Solar-Thermal Systems: Solar-thermal systems are permitted in all zoning districts subject receipt of a building permit from the Village Building Inspector.
- E. Solar energy systems and equipment shall be permitted only if they are determined by the Village Building Inspector not to present any unreasonable safety risks, including, but not limited to, the following:
1. Weight load
 2. Wind resistance
 3. Ingress or egress in the event of fire or other emergency.

1. (Final adoption by local legislative body only.)

I hereby certify that the local law annexed hereto, designated as Local Law No. 1 of 2015 of the Village of Maybrook was duly passed by the Village Board of Trustees on January 12, 2015, in accordance with the applicable provisions of law.

(If any other authorized form of final adoption has been followed, please provide an appropriate certification.)

I further certify that I have compared the preceding local law with the original on file in this office and that the same is a correct transcript therefrom and of the whole of such original local law, and was finally adopted in the manner indicated in paragraph 1, above.

Valentina Johnson

Clerk of the County legislative body, City, Town or Village Clerk or officer designated by local legislative body

VALENTINA JOHNSON - VILLAGE CLERK

Date: January 20, 2015

(Seal)

(Certification to be executed by County Attorney, Corporation Counsel, Town Attorney, Village Attorney or other authorized attorney of locality.)

STATE OF NEW YORK
COUNTY OF ORANGE

I, the undersigned, hereby certify that the foregoing local law contains the correct text and that all proper proceedings have been had or taken for the enactment of the local law annexed hereto.

Signature *[Signature]*

Attorney for the Village of Maybrook

Title

Date: 1.13.15

Local Law Filing

(Use this form to file a local law with the Secretary of State.)

Text of law should be given as amended. Do not include matter being eliminated and do not use italics or underlining to indicate new matter.

County City Town Village

(Select one.)

of Newburgh

FILED
STATE RECORDS

MAR 30 9AM

DEPARTMENT OF STATE

Local Law No. 2 of the year 2015

A local law Adding Article XVII entitled "Solar Siting" to Chapter 185 entitled Zoning of the Code of the
(Insert Title)
Town of Newburgh.

Be it enacted by the Town Board of the
(Name of Legislative Body)

County City Town Village

(Select one.)

of Newburgh

as follows:

PLEASE SEE ATTACHED LOCAL LAW

(If additional space is needed, attach pages the same size as this sheet, and number each.)

SECTION 1 - TITLE

This Local Law shall be referred to as "A Local Law Adding Article XVII Entitled 'Solar Siting' to Chapter 185 Entitled 'Zoning' of the Code of the Town of Newburgh".

SECTION 2 - SOLAR SITING

A new Article XVII entitled "Solar Siting" is hereby added to Chapter 185 entitled "Zoning" of the Town of Newburgh Municipal Code to read as follows:

"Article XVII: Solar Siting

§185-78 Purpose and Intent.

- A. Solar energy is a renewable and non-polluting energy resource that can prevent fossil fuel emissions and reduce a municipality's energy load. Energy generated from solar energy systems can be used to offset energy demand on the grid where excess solar power is generated.
- B. The use of solar energy equipment for the purpose of providing electricity and energy for heating and/or cooling is a priority and is a necessary component of the Town of Newburgh's current and long-term sustainability agenda.
- C. This Article aims to promote the accommodation of solar energy systems and equipment and the provision for adequate sunlight and convenience of access necessary therefor, and to balance the potential impact on neighbors when solar collectors may be installed near their property while preserving the rights of property owners to install solar energy systems without excess regulation. In particular, this legislation is intended to apply to free standing, ground mounted or pole mounted solar energy system installations based upon certain placement. This legislation is not intended to override agricultural exemptions that are currently in place.

§185-79 Definitions.

As used in this Article, the following terms shall have the meanings indicated, unless the context or subject matter requires otherwise. The definitions contained in Section 185-3 shall also apply.

ALTERNATIVE ENERGY SYSTEMS - Structures, equipment, devices or construction techniques used for the production of heat, light, cooling, electricity or other forms of energy on site and may be attached to or separate from the principal structure.

BUILDING-INTEGRATED PHOTOVOLTAIC (BIPV) SYSTEMS - A solar energy system that consists of integrating photovoltaic modules into the building structure, such as the roof or the façade and which does not alter the relief of the roof.

COLLECTIVE SOLAR - Solar installations owned collectively through subdivision homeowner associations, college student groups, "adopt-a-solar-panel" programs, or other similar arrangements.

FLUSH MOUNTED SOLAR PANEL - A photovoltaic panel or tile that is installed flush to the surface of a roof and which cannot be angled or raised.

FREESTANDING OR GROUND-MOUNTED SOLAR ENERGY SYSTEM - A solar energy system that is directly installed in the ground and is not attached or affixed to an existing structure. Pole mounted solar energy systems shall be considered Freestanding or Ground-Mounted Solar Energy Systems for purposes of this Local Law.

NET-METERING - A billing arrangement that allows solar customers to get credit for excess electricity that they generate and deliver back to the grid so that they only pay for their net electricity usage at the end of the month.

PERMIT GRANTING AUTHORITY - The Town Code Compliance Department, which is charged with granting permits for the operation of solar energy systems.

PHOTOVOLTAIC (PV) SYSTEMS - A solar energy system that produces electricity by the use of semiconductor devices, called photovoltaic cells that generate electricity whenever light strikes them.

QUALIFIED SOLAR INSTALLER - A person who has skills and knowledge related to the construction and operation of solar electrical equipment and installations and has received safety training on the hazards involved. Persons who are on the list of eligible photovoltaic installers maintained by the New York State Energy Research and Development Authority (NYSERDA), or who are certified as a solar installer by the North American Board of Certified Energy Practitioners (NABCEP), shall be deemed to be qualified solar installers for the purposes of this definition. Persons who are not on NYSEERDA's list of eligible installers or NABCEP's list of certified installers may be deemed to be qualified solar installers if the Town Code Compliance Supervisor or such other Town officer or employee as the Town Board designates determines such persons have had adequate training to determine the degree and extent of the hazard and the personal protective equipment and job planning necessary to perform the installation safely. Such training shall include the proper use of special precautionary techniques and personal protective equipment, as well as the skills and techniques necessary to distinguish exposed energized parts from other parts of electrical equipment and to determine the nominal voltage of exposed live parts.

ROOFTOP OR BUILDING MOUNTED SOLAR SYSTEM - A solar power system in which solar panels are mounted on top of the structure of a roof either as a flush-mounted system or as modules fixed to frames which can be tilted toward the south at an optimal angle.

SETBACK – The distance from a front lot line, side lot line or rear lot line of a parcel within which a free standing or ground mounted solar energy system is installed.

SMALL-SCALE SOLAR - For purposes of this Chapter, the term “small-scale solar” refers to solar photovoltaic systems that produce up to ten kilowatts (kW) per hour of energy or solar-thermal systems which serve the building to which they are attached, and do not provide energy for any other buildings.

SOLAR ACCESS - Space open to the sun and clear of overhangs or shade including the orientation of streets and lots to the sun so as to permit the use of active and/or passive solar energy systems on individual properties.

SOLAR COLLECTOR - A solar photovoltaic cell, panel, or array, or solar hot air or water collector device, which relies upon solar radiation as an energy source for the generation of electricity or transfer of stored heat.

SOLAR EASEMENT - An easement recorded pursuant to NY Real Property Law § 335-b, the purpose of which is to secure the right to receive sunlight across real property of another for continued access to sunlight necessary to operate a solar collector.

SOLAR ENERGY EQUIPMENT/SYSTEM - Solar collectors, controls, energy storage devices, heat pumps, heat exchangers, and other materials, hardware or equipment necessary to the process by which solar radiation is collected, converted into another form of energy, stored, protected from unnecessary dissipation and distributed. Solar systems include solar thermal, photovoltaic and concentrated solar. For the purposes of this law, a solar energy system does not include any solar energy system of four square feet in size or less.

SOLAR FARM OR SOLAR POWER PLANT – Energy generation facility or area of land principally used to convert solar energy to electricity, whether by photovoltaics, concentrating solar thermal devices or various experimental solar technologies, with the primary purpose of wholesale or retail sales of electricity.

SOLAR PANEL - A device for the direct conversion of solar energy into electricity.

SOLAR STORAGE BATTERY - A device that stores energy from the sun and makes it available in an electrical form.

SOLAR-THERMAL SYSTEMS - Solar thermal systems directly heat water or other liquid using sunlight. The heated liquid is used for such purposes as space heating and cooling, domestic hot water, and heating pool water.

§185-80 Applicability.

- A. The requirements of this local law shall apply to all solar energy system and equipment installations modified or installed after the effective date of this local law.
- B. Solar energy system installations for which a valid building permit has been issued or, if no building permit is presently required, for which installation has commenced before the effective date of this local law shall not be required to meet the requirements of this local law.
- C. All solar energy systems shall be designed, erected and installed in accordance with all applicable codes, regulations and industry standards as referenced in the State Building Code and the Town Code.
- D. Solar collectors, unless part of a Solar Farm or Solar Power Plant, shall be permitted only to provide power for use by owners, lessees, tenants, residents, or other occupants of the premises on which they are erected, but nothing contained in this provision shall be construed to prohibit "collective solar" installations or the sale of excess power through a "net billing" or "net-metering" arrangement in accordance with New York Public Service Law § 66-j or similar state or federal statute.

§185-81 Permit required.

- A. No Small Scale solar energy system or device shall be installed or operated in the Town except in compliance with this article.
- B. Rooftop and Building-Mounted Solar Collectors: Rooftop and building mounted solar collectors are permitted in all zoning districts in the Town subject to the following conditions:
 - 1. Building permits shall be required for installation of all rooftop and building-mounted solar collectors, except a building permit shall not be required for Flush-Mounted Photovoltaic Panels.
 - 2. Rooftop and Building-Mounted Solar Collectors shall not exceed the maximum allowed height of the principal use in any zoning district.
 - 3. In order to ensure firefighter and other emergency responder safety, except in the case of accessory buildings under 1,000 square feet in area, there shall be a minimum perimeter area around the edge of the roof and structurally supported pathways to provide space on the roof for walking around all Rooftop and Building-Mounted Solar Collectors. Additionally, installations shall provide for adequate access and spacing in order to:

- i. Ensure access to the roof
- ii. Provide pathways to specific areas of the roof
- iii. provide for smoke ventilation opportunity areas
- iv. provide emergency egress from the roof.

Exceptions to these requirements may be requested where access, pathway or ventilation requirements are reduced due to:

- i. Unique site specific limitations;
- ii. alternative access opportunities (as from adjoining roofs)
- iii. ground level access to the roof area in question;
- iii. other adequate ventilation opportunities when approved by the Code Compliance Department;
- iv. adequate ventilation opportunities afforded by panel set back from other rooftop equipment (for example: shading or structural constraints may leave significant areas open for ventilation near HVAC equipment.);
- v. automatic ventilation device; or
- vi. New technology, methods, or other innovations that ensure adequate emergency responder access, pathways and ventilation opportunities.

In the event any of the standards in this subsection B(3) are more stringent than the New York State Uniform Fire Prevention and Building Code (the "State Code"), they shall be deemed to be installation guidelines only and the standards of the State Code shall apply.

C. Building-Integrated Photovoltaic (BIPV) Systems: BIPV systems are permitted in all zoning districts and shall be shown on the plans submitted for the building permit application for the building containing the system.

D. Free Standing and ground mounted solar collectors: Free standing or ground mounted solar collectors are permitted as accessory structures in all zoning districts of the Town except the R-3 District subject to the following conditions:

1. Building permits are required for the installation of all ground-mounted and free standing solar collectors.
2. In the R-2 District, a lot must have a minimum size of 40,000 square feet in order for a ground-mounted or free standing solar collector to be permitted.
3. The location of the ground mounted or free standing solar collector shall meet the greater of the setback requirements for Accessory Buildings set forth in Section 185-15 or the following setback requirements and limitations set forth in this provision:

i. RR District

- minimum required side yard setback- 50 feet
- minimum required rear yard setback- 100 feet
- minimum required front yard setback- 250 feet

ii. AR District

- minimum required side yard setback- 30 feet
- minimum required rear yard setback- 50 feet
- minimum required front yard setback- 250 feet

iii. R-1 District

- minimum required side yard setback- 30 feet
- minimum required rear yard setback- 40 feet
- no ground mounted or free standing solar collectors allowed in front yard

iv. R-2 District

- minimum required side yard setback- 30 feet
- minimum required rear yard setback- 40 feet
- no ground mounted or free standing solar collectors allowed in front yard

v. R-3 District

Ground-mounted and free standing solar collectors are not permitted in the R-3 District in connection with any use

vi. B District

- minimum required side yard setback- 30 feet
- minimum required rear yard setback- 50 feet
- no ground mounted or free standing solar collectors allowed in front yard

vii. IB District

- minimum required side yard setback- 30 feet
- minimum required rear yard setback- 40 feet
- minimum required front yard setback- 250 feet

viii. I District

- minimum required side yard setback- 30 feet
- minimum required rear yard setback- 40 feet
- minimum required front yard setback- 250 feet

Yards having a line bounding on the right of way of Interstate 87 or Interstate Route 84 shall not be considered front yards for purposes of this Section.

4. The height of the solar collector and any mounts shall not exceed 20 feet when oriented at maximum tilt.
5. Ground mounted and freestanding solar collectors shall be screened when possible and practicable from adjoining lots and street rights of way through the use of architectural features, earth berms, landscaping, fencing or other screening which will harmonize with the character of the property and surrounding area. The proposed screening shall not interfere with normal operation of the solar collectors.
6. Solar energy equipment shall be located in a manner to reasonably minimize view blockage for surrounding properties and shading of property to the north, while still providing adequate solar access for collectors.
7. Solar energy equipment shall not be sited within any required buffer area.
8. The total surface area of all ground-mounted and freestanding solar collectors on a lot shall not exceed the area of the ground covered by the building structure of the largest building on the lot measured from the exterior walls, excluding patios, decks, balconies, screened and open porches and attached garages, provided that non-residential placements exceeding this size may be approved by the Planning Board, subject to site plan review pursuant to Article IX of the this Chapter.
9. The area beneath ground mounted and freestanding solar collectors shall be included in calculating whether the lot meets maximum permitted Lot Building Coverage and Lot Surface Coverage requirements for the applicable District, notwithstanding that the collectors are not "buildings."
10. The installation of ground mounted and freestanding solar collectors shall be considered a Development or Development Activity for purposes of Chapter 157, Stormwater Management, of the Code of the Town of Newburgh.

E. Solar-Thermal Systems: Solar-thermal systems are permitted in all zoning districts subject to the following conditions:

1. Building permits are required for the installation of all solar-thermal systems.

2. Ground mounted and free standing solar-thermal systems shall be subject to the same requirements set forth in Subsection D above as for Ground Mounted and Free Standing Solar Collectors.
- F.** Solar energy systems and equipment shall be permitted only if they are determined by the Town not to present any unreasonable safety risks, including, but not limited to, the following:
1. Weight load
 2. Wind resistance
 3. Ingress or egress in the event of fire or other emergency.
- G.** Solar collectors and related equipment shall be surfaced, designed and sited so as not to reflect glare onto adjacent properties and roadways.

§185-82. Safety.

- A.** All solar collector installations must be performed by a qualified solar installer.
- B.** Prior to operation, electrical connections must be inspected by a Town Code Enforcement Officer and by an appropriate electrical inspection person or agency, as determined by the Town.
- C.** Any connection to the public utility grid must be inspected by the appropriate public utility.
- D.** Solar energy systems shall be maintained in good working order.
- E.** Rooftop and building-mounted solar collectors shall meet New York's Uniform Fire Prevention and Building Code standards.
- F.** If solar storage batteries are included as part of the solar collector system, they must be placed in a secure container or enclosure meeting the requirements of the New York State Building Code when in use and when no longer used shall be disposed of in accordance with the laws and regulations of the Town and other applicable laws and regulations.
- G.** If a solar collector ceases to perform its originally intended function for more than 12 consecutive months, the property owner shall remove the collector, mount and associated equipment by no later than 90 days after the end of the twelve-month period.
- H.** Solar Energy Systems and Equipment shall be marked in order to provide emergency responders with appropriate warning and guidance with respect to

isolating the solar electric system. Materials used for marking shall be weather resistant. For residential applications, the marking may be placed within the main service disconnect. If the main service disconnect is operable with the service panel closed, then the marking should be placed on the outside cover.

For commercial application, the marking shall be placed adjacent to the main service disconnect in a location clearly visible from the location where the lever is operated.

In the event any of the standards in this subsection H for markings are more stringent than applicable provisions of the New York State Uniform Fire Prevention and Building Code (the "State Code"), they shall be deemed to be guidelines only and the standards of the State Code shall apply.

§185-83 Solar Farms and Solar Power Plants.

Solar Farms and Solar Power Plants shall be permitted in the I District as an "Electric Generating" use subject to site plan review by the Planning Board, subject to the following supplementary regulations:

- A.** Solar farms and solar power plants shall be enclosed by perimeter fencing to restrict unauthorized access at a height of 8 ½ feet.
- B.** The manufacturer's or installer's identification and appropriate warning signage shall be posted at the site and clearly visible.
- C.** Solar farm and solar power plant buildings and accessory structures shall, to the extent reasonably possible, use materials, colors, and textures that will blend the facility into the existing environment.
- D.** Appropriate landscaping and/or screening materials may be required to help screen the solar power plant and accessory structures from major roads and neighboring residences.
- E.** The average height of the solar panel arrays shall not exceed twelve (12) feet.
- F.** Solar farm and Solar Power Plan panels and equipment shall be surfaced, designed and sited so as not to reflect glare onto adjacent properties and roadways.
- G.** On-site power lines shall, to the maximum extent practicable, be placed underground.
- H.** The following requirements shall be met for decommissioning:

1. Solar farms and solar power plants which have not been in active and continuous service for a period of 1 year shall be removed at the owners or operators expense.
2. The site shall be restored to as natural a condition as possible within 6 months of the removal.

§185-84 Appeals.

- A. If a person is found to be in violation of the provisions of this Local Law, appeals should be made in accordance with the established procedures and time limits of the Zoning Code and New York State Town Law.
- B. If a building permit for a solar energy device is denied based upon a failure to meet the requirements of this Local Law, the applicant may seek relief from the Zoning Board of Appeals in accordance with the established procedures and time limits of the Zoning Code and New York State Town Law.

§185-85 Building Permit Fees for Solar Panels.

The fees for all building permits required pursuant to this Local Law shall be paid at the time each building permit application is submitted in such reasonable amount as the Town Board may by resolution establish and amend from time to time.

§185-86 Guidelines for Future Solar Access

- A. New structures will be sited to take advantage of solar access insofar as practical, including the orientation of proposed buildings with respect to sun angles, the shading and windscreen potential of existing and proposed vegetation on and off the site, and the impact of solar access to adjacent uses and properties¹
- B. To permit maximum solar access to proposed lots and future buildings, wherever reasonably feasible, consistent with other appropriate design considerations and to the extent practicable, new streets shall be located on an east-west axis to encourage building siting with the maximum exposure of roof and wall area to the sun. The Planning Board shall also consider the slope of the property and the nature and location of existing vegetation as they affect solar access²
- C. The impact of street trees on the solar access of the surrounding property shall be minimized to the greatest possible extent in selecting and locating shade trees. Every effort shall be made to avoid shading possible locations of solar collectors.

- D. When the Planning Board reviews and acts upon applications for subdivision approval or site plan approval, it shall take into consideration whether the proposed construction would block access to sunlight between the hours of 9:00 a.m. and 3:00 p.m. Eastern Standard Time for existing approved solar energy collectors or for solar energy collectors for which a permit has been issued.
- E. The Planning Board may require subdivisions to be platted so as to preserve or enhance solar access for either passive or active systems, consistent with the other requirements of the Town Code.
- F. The plan for development of any site within cluster subdivisions shall be designed and arranged in such a way as to promote solar access for all dwelling units. Considerations may include the following:
1. In order to maximize solar access, the higher-density dwelling units should be placed on a south-facing slope and lower-density dwelling units sited on a north-facing slope.
 2. Subject to the Town's setback requirements, structures should be sited as close to the north lot line as possible to increase yard space to the south for reduced shading of the south face of a structure.
 3. A tall structure should be sited to the north of a short structure.

§185-87 Penalties for offenses.

Section 185-52 of the Zoning Code applies to violations of this Article.”

SECTION 3 - SEVERABILITY

If any word, phrase, sentence, part, section, subsection, or other portion of this Law or any application thereof to any person or circumstance is declared void, unconstitutional, or invalid for any reason, then such word, phrase, sentence, part, section, subsection, or other portion, or the proscribed application thereof, shall be severable, and the remaining provisions of this Law, and all applications thereof, not having been declared void, unconstitutional, or invalid, shall remain in full force and effect.

SECTION 4 - CONFLICT WITH OTHER LAWS

Where this Law differs or conflicts with other Laws, rules and regulations, unless the right to do so is preempted or prohibited by the County, State or Federal government, the more restrictive or protective of the Town and the public shall apply.

SECTION 5 - EFFECTIVE DATE

This Law shall become effective upon filing with the New York State Secretary of State.

SECTION 6 - AUTHORITY.

This Local Law is enacted pursuant to the Municipal Home Rule Law. This Local Law shall supersede the provisions of Town Law to the extent it is inconsistent with the same, and to the extent permitted by the New York State Constitution, the Municipal Home Rule Law, or any other applicable statute.

Real Property Tax

§ 487. Exemption from taxation for certain solar or wind energy systems or farm waste energy systems. 1. As used in this section:

(a) "Solar or wind energy equipment" means collectors, controls, energy storage devices, heat pumps and pumps, heat exchangers, windmills, and other materials, hardware or equipment necessary to the process by which solar radiation or wind is (i) collected, (ii) converted into another form of energy such as thermal, electrical, mechanical or chemical, (iii) stored, (iv) protected from unnecessary dissipation and (v) distributed. It does not include pipes, controls, insulation or other equipment which are part of the normal heating, cooling, or insulation system of a building. It does include insulated glazing or insulation to the extent that such materials exceed the energy efficiency standards required by law.

(b) "Solar or wind energy system" means an arrangement or combination of solar or wind energy equipment designed to provide heating, cooling, hot water, or mechanical, chemical, or electrical energy by the collection of solar or wind energy and its conversion, storage, protection and distribution.

(c) "Authority" means the New York state energy research and development authority.

(d) "Incremental cost" means the increased cost of a solar or wind energy system or farm waste energy system or component thereof which also serves as part of the building structure, above that for similar conventional construction, which enables its use as a solar or wind energy or farm waste energy system or component.

(e) "Farm waste electric generating equipment" means equipment that generates electric energy from biogas produced by the anaerobic digestion of agricultural waste, such as livestock manure, farming waste and food processing wastes with a rated capacity of not more than one thousand kilowatts that is (i) manufactured, installed and operated in accordance with applicable government and industry standards, (ii) connected to the electric system and operated in conjunction with an electric corporation's transmission and distribution facilities, (iii) operated in compliance with the provisions of section sixty-six-j of the public service law, (iv) fueled at a minimum of ninety percent on an annual basis by biogas produced from the anaerobic digestion of agricultural waste such as livestock manure materials, crop residues and food processing wastes, and (v) fueled by biogas generated by anaerobic digestion with at least fifty percent by weight of its feedstock being livestock manure materials on an annual basis.

(f) "Farm waste energy system" means an arrangement or combination of farm waste electric generating equipment or other materials, hardware or equipment necessary to the process by which agricultural waste biogas is produced, collected, stored, cleaned, and converted into forms of energy such as thermal, electrical, mechanical or chemical and by which the biogas and converted energy are distributed on-site. It does not include pipes, controls, insulation or other equipment which are part of the normal heating, cooling or insulation system of a building.

2. Real property which includes a solar or wind energy system or farm waste energy system approved in accordance with the provisions of this section shall be exempt from taxation to the extent of any increase in the value thereof by reason of the inclusion of such solar or wind energy system or farm

waste energy system for a period of fifteen years. When a solar or wind energy system or components thereof or farm waste energy system also serve as part of the building structure, the increase in value which shall be exempt from taxation shall be equal to the assessed value attributable to such system or components multiplied by the ratio of the incremental cost of such system or components to the total cost of such system or components.

3. The president of the authority shall provide definitions and guidelines for the eligibility for exemption of the solar and wind energy equipment and systems and farm waste energy equipment and systems described in paragraphs (a) and (b) of subdivision one of this section.

4. No solar or wind energy system or farm waste energy system shall be entitled to any exemption from taxation under this section unless such system meets the guidelines set by the president of the authority and all other applicable provisions of law.

5. The exemption granted pursuant to this section shall only be applicable to solar or wind energy systems or farm waste energy systems which are (a) existing or constructed prior to July first, nineteen hundred eighty-eight or (b) constructed subsequent to January first, nineteen hundred ninety-one and prior to January first, two thousand twenty-five.

6. Such exemption shall be granted only upon application by the owner of the real property on a form prescribed and made available by the commissioner in cooperation with the authority. The applicant shall furnish such information as the commissioner shall require. The application shall be filed with the assessor of the appropriate county, city, town or village on or before the taxable status date of such county, city, town or village. A copy of such application shall be filed with the authority.

7. If the assessor is satisfied that the applicant is entitled to an exemption pursuant to this section, he or she shall approve the application and enter the taxable assessed value of the parcel for which an exemption has been granted pursuant to this section on the assessment roll with the taxable property, with the amount of the exemption as computed pursuant to subdivision two of this section in a separate column. In the event that real property granted an exemption pursuant to this section ceases to be used primarily for eligible purposes, the exemption granted pursuant to this section shall cease.

8. (a) Notwithstanding the provisions of subdivision two of this section, a county, city, town or village may by local law or a school district, other than a school district to which article fifty-two of the education law applies, may by resolution provide that no exemption under this section shall be applicable within its jurisdiction with respect to any solar or wind energy system or farm waste energy system which began construction subsequent to January first, nineteen hundred ninety-one or the effective date of such local law, ordinance or resolution, whichever is later. A copy of any such local law or resolution shall be filed with the commissioner and with the president of the authority.

(b) Construction of a solar or wind energy system or a farm waste energy system shall be deemed to have begun upon the full execution of a contract or interconnection agreement with a utility; provided however, that if such contract or interconnection agreement requires a deposit to be made, then construction shall be deemed to have begun when the contract or interconnection agreement is fully executed and the deposit is made. The owner or developer of such a system shall provide written

notification to the appropriate local jurisdiction or jurisdictions upon execution of the contract or the interconnection agreement.

9. (a) A county, city, town, village or school district, except a school district under article fifty-two of the education law, that has not acted to remove the exemption under this section may require the owner of a property which includes a solar or wind energy system which meets the requirements of subdivision four of this section, to enter into a contract for payments in lieu of taxes. Such contract may require annual payments in an amount not to exceed the amounts which would otherwise be payable but for the exemption under this section. If the owner or developer of such a system provides written notification to a taxing jurisdiction of its intent to construct such a system, then in order to require the owner or developer of such system to enter into a contract for payments in lieu of taxes, such taxing jurisdiction must notify such owner or developer of its intent to require a contract for payments in lieu of taxes within sixty days of receiving the written notification.

(b) The payment in lieu of a tax agreement shall not operate for a period of more than fifteen years, commencing in each instance from the date on which the benefits of such exemption first become available and effective.

PERMIT APPLICATION

NY State Unified Solar Permit

Unified solar permitting is available statewide for eligible solar photovoltaic (PV) installations. Municipal authorities that adopt the unified permit streamline their process while providing consistent and thorough review of solar PV permitting applications and installations. Upon approval of this application and supporting documentation, the authority having jurisdiction (AHJ) will issue a building and/or electrical permit for the solar PV installation described herein.

PROJECT ELIGIBILITY FOR UNIFIED PERMITTING PROCESS

By submitting this application, the applicant attests that the proposed project meets the established eligibility criteria for the unified permitting process (subject to verification by the AHJ). The proposed solar PV system installation:

- Yes No 1. Has a rated DC capacity of 25 kW or less.
- Yes No 2. Is not subject to review by an Architectural or Historical Review Board. (If review has already been issued answer YES and attach a copy)
- Yes No 3. Does not need a zoning variance or special use permit. (If variance or permit has already been issued answer YES and attach a copy)
- Yes No 4. Is mounted on a permitted roof structure, on a legal accessory structure, or ground mounted on the applicant's property. If on a legal accessory structure, a diagram showing existing electrical connection to structure is attached.
- Yes No 5. The Solar Installation Contractor complies with all licensing and other requirements of the jurisdiction and the State.
- Yes No 6. If the structure is a sloped roof, solar panels are mounted parallel to the roof surface.

For solar PV systems not meeting these eligibility criteria, the applicant is not eligible for the Unified Solar Permit and must submit conventional permit applications. Permit applications may be downloaded here: [BUILDING DEPARTMENT WEBSITE] or obtained in person at [BUILDING DEPARTMENT ADDRESS] during business hours [INDICATE BUSINESS HOURS].

SUBMITTAL INSTRUCTIONS

For projects meeting the eligibility criteria, this application and the following attachments will constitute the Unified Solar Permitting package.

- This application form, with all fields completed and bearing relevant signatures.
- Permitting fee of \$[ENTER FEE HERE], payable by [ENTER VALID PAYMENT METHODS, If checks are allowed INCLUDING WHO CHECKS SHOULD BE MADE PAYABLE TO]
- Required Construction Documents for the solar PV system type being installed, including required attachments.

Completed permit applications can be submitted electronically to [EMAIL ADDRESS] or in person at [BUILDING DEPARTMENT ADDRESS] during business hours [INDICATE BUSINESS HOURS].

APPLICATION REVIEW TIMELINE

Permit determinations will be issued within [TIMELINE] calendar days upon receipt of complete and accurate applications. The municipality will provide feedback within [TIMELINE] calendar days of receiving incomplete or inaccurate applications.

FOR FURTHER INFORMATION

Questions about this permitting process may be directed to [MUNICIPAL CONTACT INFORMATION].

PROPERTY OWNER

Property Owner's First Name

Last Name

Title

Property Address

City

State

Zip

Section

Block

Lot Number

EXISTING USE

Single Family

2-4 Family

Commercial

Other

PROVIDE THE TOTAL SYSTEM CAPACITY RATING (SUM OF ALL PANELS)

Solar PV System: _____ kW DC

SELECT SYSTEM CONFIGURATION

Make sure your selection matches the Construction Documents included with this application.

Supply side connection with microinverters

Load side connection with DC optimizers

Supply side connection with DC optimizers

Load side connection with microinverters

Supply side connection with string inverter

Load side connection with string inverter

SOLAR INSTALLATION CONTRACTOR

Contractor Business Name

Contractor Business Address

City

State

Zip

Contractor Contact Name

Phone Number

Contractor License Number(s)

Contractor Email

Electrician Business Name

Electrician Business Address

City

State

Zip

Electrician Contact Name

Phone Number

Electrician License Number(s)

Electrician Email

Please sign below to affirm that all answers are correct and that you have met all the conditions and requirements to submit a unified solar permit.

Property Owner's Signature

Date

Solar Installation Company Representative Signature

Date

SUBMITTAL REQUIREMENTS SOLAR PV 25KW OR LESS (ATTACHMENTS)

NY State Unified Solar Permit

This information bulletin is published to guide applicants through the unified solar PV permitting process for solar photovoltaic (PV) projects 25 kW in size or smaller. This bulletin provides information about submittal requirements for plan review, required fees, and inspections.

Note: Language in [ALL CAPS] below indicates where local jurisdictions need to provide information specific to the jurisdiction. Language in italics indicates explanatory notes from the authors of this document that may be deleted from the distributed version.

PERMITS AND APPROVALS REQUIRED

The following permits are required to install a solar PV system with a nameplate DC power output of 25 kW or less:

- a) Unified Solar Permit
- b) [LIST TYPE OF PERMIT(S) REQUIRED BY THE LOCAL JURISDICTION, i.e., ELECTRICAL OR BUILDING PERMIT].

Planning review [IS/IS NOT] required for solar PV installations of this size.

Fire Department approval [IS/IS NOT] required for solar PV installations of this size.

SUBMITTAL REQUIREMENTS

In order to submit a complete permit application for a new solar PV system, the applicant must include:

- a) Completed Standard Permit Application form which includes confirmed eligibility for the Unified Solar Permitting process. This permit application form can be downloaded at [WEBSITE ADDRESS].
- b) Construction Documents, with listed attachments [SAMPLES ARE AVAILABLE IN Understanding Solar PV Permitting and Inspecting in New York State AT WEBSITE ADDRESS]. Construction Documents must be by stamped and signed by a New York State Registered Architect or New York State Licensed Professional Engineer.

[MUNICIPALITY NAME], through adopting the Unified Solar Permitting process, requires contractors to provide construction documents, such as the examples included in the Understanding Solar PV Permitting and Inspecting in New York State document. Should the applicant wish to submit Construction Documents in another format, ensure that the submittal includes the following information:

- Manufacturer/model number/quantity of solar PV modules and inverter(s).
- String configuration for solar PV array, clearly indicating the number of modules in series and strings in parallel (if applicable).
- Combiner boxes: Manufacturer, model number, NEMA rating.
- From array to the point of interconnection with existing (or new) electrical distribution equipment: identification of all raceways (conduit, boxes, fittings, etc.), conductors and cable assemblies, including size and type of raceways, conductors, and cable assemblies.
- Sizing and location of the EGC (equipment grounding conductor).
- Sizing and location of GEC (grounding electrode conductor, if applicable).
- Disconnecting means of both AC and DC including indication of voltage, ampere, and NEMA rating.
- Interconnection type/location (supply side or load side connection)
- For supply side connections only, indication that breaker or disconnect meets or exceeds available utility fault current rating kAIC (amps interrupting capacity in thousands).
- Ratings of service entrance conductors (size insulation type AL or CU), proposed service disconnect, and overcurrent protection device for new supply side connected solar PV system (reference NEC 230.82, 230.70).
- Rapid shutdown device location/method and relevant labeling.

c) (For Roof Mounted Systems) A roof plan showing roof layout, solar PV panels and the following fire safety items: approximate location of roof access point, location of code-compliant access pathways, code exemptions, solar PV system fire classification, and the locations of all required labels and markings.

d) Provide construction drawings with the following information:

- The type of roof covering and the number of roof coverings installed.
- Type of roof framing, size of members, and spacing.
- Weight of panels, support locations, and method of attachment.
- Framing plan and details for any work necessary to strengthen the existing roof structure.
- Site-specific structural calculations.

e) Where an approved racking system is used, provide documentation showing manufacturer of the racking system, maximum allowable weight the system can support, attachment method to roof or ground, and product evaluation information or structural design for the rack.

PLAN REVIEW

Permit applications can be submitted to [DEPARTMENT NAME] in person at [ADDRESS] and [IF APPLICABLE] electronically through: [WEBSITE/EMAIL/FAX].

FEES

[PROVIDE CLEAR FEE SCHEDULE]

INSPECTIONS

Once all permits to construct the solar PV installation have been issued and the system has been installed, it must be inspected before final approval is granted for the solar PV system. On-site inspections can be scheduled by contacting [DEPARTMENT] by telephone at [PHONE NUMBER] or electronically at [WEBSITE OR EMAIL ADDRESS]. Inspection requests received within business hours are typically scheduled for the next business day. If next business day is not available, inspection should happen within a five-day window. [IF MUNICIPALITY ACCEPTS THIRD PARTY INSPECTIONS, INDICATE THIS AND PROVIDE A LIST OF APPROVED INSPECTORS].

In order to receive final approval, the following inspections are required:

Delete Rough/Final inspection descriptions if not applicable in your jurisdiction

[ROUGH INSPECTION, IF REQUIRED] During a rough inspection, the applicant must demonstrate that the work in progress complies with relevant codes and standards. The purpose of the rough inspection is to allow the inspector to view aspects of the system that may be concealed once the system is complete, such as:

- Wiring concealed by new construction.
- Portions of the system that are contained in trenches or foundations that will be buried upon completion of the system.

It is the responsibility of the applicant to notify [ENTER CONTACT INFORMATION] before the components are buried or concealed and to provide safe access (including necessary climbing and fall arrest equipment) to the inspector. The inspector will attempt, if possible, to accommodate requests for rough inspections in a timely manner.

[FINAL INSPECTION] The applicant must contact [INSERT CONTACT INFORMATION] when ready for a final inspection. During this inspection, the inspector will review the complete installation to ensure compliance with codes and standards, as well as confirming that the installation matches the records included with the permit application. The applicant must have ready, at the time of inspection, the following materials and make them available to the inspector:

- Copies of as-built drawings and equipment specifications, if different than the materials provided with the application.
- Photographs of key hard to access equipment, including;
 - Example of array attachment point and flashing/sealing methods used.
 - Opened rooftop enclosures, combiners, and junction boxes.
 - Bonding point with premises grounding electrode system.
 - Supply side connection tap method/device.
 - Module and microinverter/DC optimizer nameplates.
 - Microinverter/DC optimizer attachment.

[MUNICIPALITY NAME] has adopted a standardized inspection checklist, which can be found in the Understanding Solar PV Permitting and Inspecting in New York State document, found here: [WEBSITE ADDRESS].

The inspection checklist provides an overview of common points of inspection that the applicant should be prepared to show compliance. If not available, common checks include the following:

- Number of solar PV modules and model number match plans and specification sheets number match plans and specification sheets.
- Array conductors and components are installed in a neat and workman-like manner.
- Solar PV array is properly grounded.
- Electrical boxes and connections are suitable for environment.
- Array is fastened and sealed according to attachment detail.
- Conductor's ratings and sizes match plans.
- Appropriate signs are property constructed, installed and displayed, including the following:
 - Sign identifying PV power source system attributes at DC disconnect.
 - Sign identifying AC point of connection.
 - Rapid shutdown device meets applicable requirements of NEC 690.12.
- Equipment ratings are consistent with application and installed signs on the installation, including the following:
 - Inverter has a rating as high as max voltage on PV power source sign.
 - DC-side overcurrent circuit protection devices (OCPDs) are DC rated at least as high as max voltage on sign.
 - Inverter is rated for the site AC voltage supplied and shown on the AC point of connection sign.
 - OCPD connected to the AC output of the inverter is rated at least 125% of maximum current on sign and is no larger than the maximum OCPD on the inverter listing label.
 - Sum of the main OCPD and the inverter OCPD is rated for not more than 120% of the buss bar rating.

UNIFIED SOLAR PERMITTING RESOURCES

The jurisdiction has adopted the following documents from the New York Unified Solar Permit process: Delete any documents not adopted by the jurisdiction.

- Standard Application [WEB ADDRESS]
- Understanding Solar PV Permitting and Inspecting in New York State document, which includes sample construction documents, inspection checklist, design review checklist, and labelling guide [WEB ADDRESS]

DEPARTMENTAL CONTACT INFORMATION

For additional information regarding this permit process, please consult our departmental website at [WEBSITE] or contact [DIVISION NAME] at [PHONE NUMBER].

Town of Elmira, NY

Chemung County

ZONING:\\ 217-73 Solar Energy Systems and Solar Access.

To the maximum extent possible, all new development proposals totaling 10 acres of site area or more may be designed so the maximum number of buildings shall receive direct sunlight sufficient for using solar energy systems for space, water, or industrial process heating or cooling. Buildings and vegetation should be sited and maintained so that unobstructed direct sunlight reaches the southern exposure of the greatest number of buildings according to the following guidelines:

- A.** Solar access shall be protected between the solar azimuths of -45° (east of due south) to $+45^{\circ}$ (west of due south).
- B.** In considering dimensional modifications permitted in Article **VI** and Article **VII** of this chapter, the Planning Board shall also consider solar access and design considerations.
- C.** For purposes of solar access, roads, lots and building setbacks should be designed so that the buildings are oriented with their long axes running from east to west for one-unit development and north to south for townhouse and multiunit development.
- D.** In order to maximize solar access, the highest densities shall, to the maximum extent possible, be placed on the south-facing slopes, with lower densities sited on north-facing slopes.
- E.** Roads should be oriented on an east-west axis to the greatest possible extent.
- F.** Buildings shall, to the greatest extent possible, be sited as close to the north lot line or lines as possible to increase yard space to the south for better owner control of shading.
- G.** Tall buildings shall, to the greatest extent possible, be sited to the north of shorter ones and be buffered from adjacent development.
- H.** Existing vegetation shall be retained and incorporated into the design as practicable.
- I.** A description of any mechanisms, such as deed restrictions, covenants, etc., that are to be applied shall be provided.