Town of Skaneateles
Local Law 3 of 2017
A Local Law Regulating Solar Energy Systems

§148-35 L. Solar Energy Systems. *Intent –The purpose of the following regulations is to promote and accommodate the provision of solar energy systems as an environmentally friendly alternative source of energy for town residents and businesses. The Town shares the general goal of encouraging solar energy generation with Federal and State programs. However, Federal and State programs focus on total energy production, the interface with public utilities, and operational characteristics of solar energy systems, while the Town is more concerned with the physical characteristics, and impacts of solar energy systems. These regulations reflect the Town's concerns.*

1. **Authority:** All solar energy systems shall be established and maintained in conformance with this Section. The Town recognizes that solar technology for consumer use is a new and evolving technology and that some town standards may not apply to all solar energy systems. Therefore, this section authorizes limited modifications as deemed appropriate (see 148-35L3d(iv)).

2. **Solar Energy System Review & Dimensional Standards:** The following table sets forth the review procedures and standards for solar energy systems. See also §148-56 Definitions (for terms with "*").

   a. Table of standards

***Solar Energy System Type**	***ON - site/Individual**			***OFF- site/Community**			***Utility**
***Solar Energy Installation type:**	**BIPV**	**Building Mount**	**Ground Mount**	**BIPV**	**Building Mount**	**Ground Mount**	**Ground Mount**
Zone Districts, permitted in:	All	All	All	All	All except HM		IRO
Town Review Procedure	Building-Zoning Permit	Building-Zoning Permit	Site Plan Review	Building - Zoning Permit	Building-Zoning Permit	Special Permit	Special Permit
land use/structure type:	equipment/accessory structure			Sole principal or 2nd principal use			
Kilowatt, max.	Subject to NYSERDA limits			Subject to NYSERDA /NYS PSC limits			
Lot area, Min.	-	-	2 acres	-	-	**5 acres**	10 acres
***Solar Energy Materials & Equipment**							
***Solar Panel**							
Maximum height/projection							
Wall/pitched roof	-	1 ft.	-	-	1 ft.	-	-
Flat/low pitch roof	-	6 ft.	-	-	6 ft.	-	-
Ground mount	-	-	15 ft.	-	-	15 ft.	15 ft.
***Solar Array**							
% lot area, max.	-	-	5%	-	-	**25%**	50%
Impermeable surface coverage	-	-	exempt	-	-	exempt	exempt
Required Open Space (permeable)	-	-	exempt	-	-	exempt	exempt
Yard setbacks							
Front	-	-	Per Zone District Standards applicable to principal use/structure	-	-	Per Zone District Standards applicable to principal use/structure	Per Zone District Standards applicable to principal use/structure
Side	-	-		-	-		
Rear	-	-		-	-		

Solar Energy System Review & Dimensional Standards (cont'd)

b. **Off-site/Community solar system** may be the sole principal use of a lot or may be co-located as second principal use with another principal use on a portion of a lot and shall be subject to town review and applicable standards. The solar collectors may be building-mounted or ground-mounted. The off-site/community system shall apportion solar collectors or electric output to individual end-users through a legally binding agreement and management system. This management system shall be documented, subject to town review and may show either: collective ownership and management by the end-users OR ownership and operation by a third party with long-term leases to the individual end-users. Examples of the managing entity include: subdivision homeowner association and other similar organization or a profit or nonprofit third-party.
c. **Utility Facility system** may be the sole principal use of lot or may be co-located as second principal use with another principal use on a portion of a lot and shall be subject to town review and applicable standards.

3. General regulations

a. **Safety and Security compliance**
   i. **Electrical Connections:** All solar energy systems shall be subject to electrical permit, inspection and certification for safe installation and operation.
   ii. **Utility Connection:** All power lines from the solar energy system for on-site consumption shall be located underground; interconnections to the public utility grid shall be subject to the requirements of the public utility. All lines and connections shall be installed by certified professionals and must meet all applicable federal, state and local electrical codes.
   iii. **Security:** ground mounted solar systems may be enclosed by fencing to prevent unauthorized access. Warning signs with the owner's contact information may be placed on the entrance and perimeter of the fencing.
   iv. **Maintenance and Inspection:**
      1. **The land, structures and equipment associated with all solar energy systems shall be maintained in good condition and in accordance with all requirements of this section.**
      2. Upon notice to the owner or his/her agent, the Codes Enforcement Officer and/or Town Engineer shall have the right at any reasonable time to enter the premises on which a solar energy system is constructed to inspect all parts of the installation and require that repairs or alterations be made if in his/her judgment there may be a deficiency in the operation or the structural stability of the system. If necessary, the Codes Enforcement Officer or Town Engineer may order the system to be secured or to cease operation. If the Codes Enforcement Officer or Town Engineer has reason to believe that an emergency situation involving danger to life, limb or property exists, the Codes Enforcement Officer or Town Engineer may enter the premises for purposes of inspecting the system without notifying the owner or agent in advance and order immediate correction. (See also Discontinuance).

b. **Visual Protection**
   i. **Screening:** All ground mounted solar energy systems shall be screened to the extent necessary to minimize visual impacts to abutting residential properties and the public road

ROW, taking into consideration site-specific conditions including topography, adjacent structures and roadways. Such screening may be accomplished using context-appropriate fencing and/or by preserving natural vegetation and providing additional landscape screening, as determined by the reviewing board.

ii. **Glare:** All ground mounted solar energy systems shall be designed and located to minimize reflective glare.

iii. **Significant view-sheds**: No ground mounted systems shall be installed in any location that would substantially detract from or block the view(s) of all or a portion of a view-shed listed or referred to in Appendix [**B]**of the adopted Town of Skaneateles Comprehensive Plan or in any future officially adopted Town planning document. Off-site ground mounted systems placed within a recognized view-shed and that are directly observable within 1 mile from points of public access such as Skaneateles Lake or public ROW shall be positioned and screened to minimize alteration of the existing view.

c. **Other structures/improvements:** Any structures or improvements, such as driveways, parking, maintenance-storage buildings or offices incidental to off-site systems shall be subject to all zone district dimensional requirements normally applicable to the site.

d. **Exemptions and waivers**

i. **Agricultural exemption**: When an on-site solar energy system is part of a farm operation located within an agricultural district as defined in Article 25AA of the NYS Agriculture and Markets Law, it shall be considered to be part of the farm operation and shall be exempt from the requirement to obtain a special permit or site plan review as set forth in ***§148-35L2*** above. An Off-site Community or Utility system co-located on farm land **as an unrelated and** separate principal use shall NOT be considered an **exempted agricultural activity** and shall be subject to the provisions of this section.

ii. **Setback/Height limited exemption building mounted systems:** Building mounted systems that otherwise comply with dimensional requirements in §148-35L2 above may encroach into minimum required setbacks or exceed maximum height limits by up to **[one (1) foot]**.

iii. **Conflict with Federal or State Solar Programs:** In the event that there is conflict between the requirements of Federal and State solar energy programs and Town Zoning requirements the Board or Codes Enforcement Officer may adjust these Zoning requirements for a specific proposal to make reasonable accommodations among conflicting requirements.

iv. **Modification for technological changes:** §148-35L assumes that building mounted solar energy systems are designed as flat rectangular panels mounted flush or parallel to a building and that ground mounted systems are installed on two support posts with minimal disturbance of the ground surface. During Site Plan or Special Permit review the dimensional limits (height, setback) for solar energy systems may be modified by the reviewing board upon a finding that changes in solar technology require reasonable and minor adjustments to dimensional limits to enable installation of a solar energy system. The reviewing board may increase the setback encroachment by not more than **one (1) foot** and/or increase the height limit by an additional **10%.**

v. **Impermeable Surface Coverage-Required Open Space limited exemption:** All ground mounted systems are exempt from Required Maximum Impermeable Surface Coverage and **Required Minimum Open Space (permeable surfaces)** based on the observation and finding that existing mounting materials and installation methods result in negligible disturbance to the ground and any drainage systems, provided however, that the supporting posts and associated footings are no more than one (1) sq. ft. in area for each support post.

Any posts, footings or structural bases for solar energy systems exceeding one (1) sq. ft. shall be subject to Impermeable Surface Coverage and Open Space requirements.

e. Nonconformities

i. **Pre-existing solar systems:** Any solar energy system installed prior to **(effective date),** may continue to operate and be maintained and repaired. Any expansion of an existing solar energy system shall be in conformance with this Section.

ii. **Nonconforming uses:** A solar energy system may be installed on a lot occupied by a nonconforming use in compliance with this Section.

iii. **Nonconforming structures:** A solar energy system may be installed on a lot occupied by a nonconforming structure in compliance with this Section, provided that it does not increase the nonconformity of any structure. The solar energy system setback and height exemptions shall apply.

iv. **Nonconforming lots:** A solar energy system may be installed on a nonconforming lot provided the following conditions are met. Building mounted systems may be installed on conforming structures in compliance with this section. Ground mounted systems may be installed on nonconforming lots that have insufficient lot area or lot width provided that the solar energy system can meet the minimum applicable setback requirements applicable to principal buildings specified in §148-12G(1)(a) and that the lot has a minimum lot area of 20,000 sq. ft.

f. Discontinuance

i. **Decommissioning.** If a solar energy system ceases to perform its originally intended function for more than 12 consecutive months as determined by the property owner, the property owner shall remove the system and associated equipment no later than 90 days after the end of the twelve month period.

ii. **Mandatory Removal:** If the Codes Enforcement Officer, on the basis of investigation or information received determines that a solar energy system is inoperative or its use has been discontinued, the Codes Enforcement Officer shall provide written notification to the property owner. The owner shall either substantiate to the satisfaction of the Codes Enforcement Officer that the solar energy system is still operating or obtain a demolition permit from the Codes Enforcement Officer to decommission the system as provided in paragraph (§148-35 L(3)f(i)) above within one year of said notification. Failure to obtain a demolition permit to remove the discontinued solar energy system in accordance with these regulations shall be a violation of this section, and at the option of the Town Board, the Town Board may cause the solar energy system to be removed. All expenses incurred by the Town to remove the solar energy system shall be assessed against the land on which the solar energy system is located and such expenses shall be levied and collected in the same manner as provided in the Town Law for the collection of a special ad valorem levy (See also Inspection).

4. Supplemental Submissions for Solar Energy Systems

The following are additional and specialized submissions for solar energy systems that shall accompany, applications for building permit, Site Plan Review, Special Permit or Variance.

a. **Statement of Compliance:** All applications for solar energy systems shall provide documentation of compliance or the status of pending compliance with applicable requirements of NYSERDA, NYS PSC or any other regulatory agency with jurisdiction over the application.

b. **Utility notification**: Applications for solar energy systems that will have a utility connection shall include a signed interconnection agreement or letter of intent with the interconnecting utility company.

c. **Manufacturer/installation Specifications**: Documentation from the manufacturer w/graphics shall be supplied to the town for all solar energy systems.

d. **View-shed analysis:** All off-site/community and utility ground mounted systems shall include a site location map showing the site of the proposed placement of the solar energy system and its relationship to potential views from public access points within 1 mile of the site for each view shed recognized in Town Comprehensive Plan. Photo simulation of the impact of the proposed energy system may be required by the reviewing board.

e. **Landscaping plan:** All ground based systems shall include as part of its Site Plan documentation information of existing and proposed site drainage, vegetation and strategies for screening.

5. Supplemental Review Standards for Solar Energy Systems

The following are additional and specialized standards for solar energy systems that shall be considered by the reviewing board and shall be in addition to the general review standards applicable to Site Plan Review, Special Permit or Variance.

a. **Site Plan Review – Special Permit:** Solar energy systems required by this Section to obtain a Site Plan Review or a Special Permit shall comply with the procedures and standards of the applicable sections of §148-13 through §148-20

b. **Building mounted arrays** may be arranged with minimal horizontal or vertical separation of panels. Building mounted the panels may be parallel to the wall/roof surface or when placed upon a flat or low slope roof angled to maximize exposure to solar radiation. The projection beyond the wall/roof plane is measured along a perpendicular line extending out from the wall/roof plane to the surface plane of the panel. (see also Table of Standards and Exemptions for setback – height)

c. **Ground based arrays** are typically arranged in rows with minimal side-to-side separation of panels and with an intermediate access path between rows of sufficient width for a person to walk for maintenance and to facilitate surface water run-off. Ground based arrays are regulated as a percentage of lot area per §148-35L (2). The exterior limits of the entire solar array with intermediate access paths are to be included within an array perimeter drawn upon a site plan. The basis of solar array coverage is the area contained within the array perimeter and shall be measured in square feet and as a percentage of the total lot area. Ground mounted panels are placed on vertical posts above the ground and angled to maximize exposure to solar radiation. The height of panels above the ground is measured along a perpendicular line extending up from the ground plane to the highest point of the solar panel.

d. Coverage for Ground mounted Array: A ground mounted solar array shall be evaluated by the Planning Board for the cumulative effect upon ground coverage of the grouping of solar panels. The Planning Board shall find (1) the area contained within the solar array is within the required zone district required setbacks established for a principal structure; (2) the proposed array is within the maximum allowable percentage of lot area (set forth in table above); (3) the intermediate paths between panel rows included in the array are reasonable and adequate for equipment and ground maintenance;(4) the ground within the array is covered with vegetation or appropriate permeable materials; and (5) that all surface water run-off is able to be directly absorbed into the ground and will be compatible with existing or planned drainage patterns for the site.

e. Agricultural land: All off-site ground mounted solar energy systems shall avoid to the extent practical the placement of ground mounted solar arrays on land currently used for agricultural purposes or that has agriculturally viable soils.

Definitions: (TO BE INCLUDED into the Definition section 148-56, see under: "SOLAR")

SOLAR ENERGY SYSTEM TYPES:

1. **On-site – Individual System:** solar collectors producing electric power directly for the on-site end-users (such as individual residential dwellings or businesses). The solar collectors may be BIPV, building-mounted or ground-mounted and are subject to applicable standards of this code. On-site systems are considered accessory to the function of the principal use.

2. **Off-site – Community System:** solar collectors producing electric power via a public utility network primarily to off-site end-users (such as individual residential dwellings or businesses).

3. **Utility Facility:** solar collectors operated by a public utility located on land primarily used to produce and transmit electric power for general off-site energy consumption. A public utility is an entity which operates as a monopoly, and whose rate charges to customers are established by NYS Public Service Commission.

SOLAR ENERGY INSTALLATION TYPES:

1. **Building Integrated Photovoltaic (BIPV):** BIPV is an alternative to traditional roof or façade materials (e.g. wood, asphalt, metal, brick) historically used to cover, enclose, protect and decorate structures. BIPV adds the solar energy power generation function to the protective and decorative functions of traditional material and is integral to a building's structure, not altering the relief of the structure. Examples of BIPV may be roof shingles or tiles, siding, paneling, laminates, or glass that integrate photovoltaic function.

2. **Building Mounted:** Solar panels attached to a roof or building façade and subject to the applicable standards of this code **[per §148-35L 2 & 3]** (see also definition Solar Energy Materials & Equipment: Solar Panel).

3. **Ground Mounted:** Solar panels installed in an array located directly on the ground and anchored to the ground via a pole or similar mounting system, detached from any other structure (see also definition Solar Energy Materials & Equipment: Solar Panel & Solar Array).

SOLAR ENERGY MATERIALS & EQUIPMENT: Solar collectors, controls, energy storage devices, heat pumps, heat exchangers, and other materials, as well as the hardware or equipment necessary to collect solar radiation, convert it into another form of energy, store the collected energy, protect it from unnecessary dissipation, and distribute it. Solar energy materials and equipment include solar thermal, solar photovoltaic, and equipment used to concentrate solar energy through the use of a mirror and/or lens. Solar equipment is further defined as follows:

1. **Solar Collector:** a single solar photovoltaic cell or a solar hot air or water collector device that converts the energy from solar radiation into electricity or the transfer of stored heat.

2. **Solar Panel** –a series of solar collectors manufactured into a single unit for installation on a site. A solar panel is typically rectangular in shape and is either attached to a building wall or roof with connecting brackets or installed on the ground with posts.

3. **Solar Array:** is a grouping of solar panels placed upon a structure or upon the ground and designed to produce a larger amount of solar generated energy than a single solar panel.

4. **Other misc. equipment** – exterior equip placed on pads (generator, battery systems, etc.) are considered regulated structures for impermeable surface coverage if they individually exceed **16 sq. ft.**