

## **Article XIII: Definitions**

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

### **SOLAR ENERGY EQUIPMENT AND SYSTEMS**

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

#### **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.

#### **BUILDING-INTEGRATED PHOTOVOLTAIC (BIPV) SYSTEMS**

A solar energy system that consists of integrating photovoltaic modules into the building structure, such as the roof or 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.

#### **ENERGY STORAGE DEVICE**

A device that stores energy from the sun or another source and makes it available for use.

#### **FLUSH-MOUNTED SOLAR PANEL**

Solar collector systems, panels, and tiles that are installed flush to the surface of a roof or wall of a principal and/or an accessory structure and which cannot be angled or raised for the direct conversion of solar energy into electricity.

#### **FREESTANDING OR GROUND-MOUNTED SOLAR COLLECTOR SYSTEM**

A solar collector system that is directly installed on the ground and is not attached or affixed to an existing structure and used for the direct conversion of solar energy into electricity.

#### **GLARE**

The effect produced by light with intensity sufficient to cause annoyance, discomfort, or loss in visual performance and visibility.

#### **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 of Canajoharie Code Enforcement Officer is the 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 the semiconductor devices, called photovoltaic cells that generate electricity whenever light strikes them.

#### **ROOFTOP OR BUILDING MOUNTED SOLAR COLLECTOR SYSTEM**

A solar collector in which solar panels are mounted on top of a roof of a principal and/or an accessory structure as a flush-mounted system for the direct purpose of converting solar energy into electricity.

#### **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 COLLECTOR SYSTEM**

A solar energy system that is designed and/or built to provide power for use by owners, lessees, tenants, residents, or other occupants of the premises on which they are erected, and is constructed for the sale of excess power through an arrangement in accordance with New York Public Service Law 66-j or similar state or federal law or regulation.

**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 ARRAY**

A group of multiple solar modules with purpose of harvesting solar energy.

**SOLAR CELL**

The smallest basic solar electric device which generates electricity when exposed to light.

**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 ENERGY EQUIPMENT/SYSTEM**

Solar collectors, controls, energy devices, heat pumps, heat exchangers, and or 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.

**UTILITY-SCALE SOLAR COLLECTOR SYSTEM**

A solar energy system that is designed and/or built to provide energy as an ongoing commercial enterprise, or for commercial profit, or designed to distribute energy generated to a transmission system for distribution to customers rather than for use on the site. A utility-scale solar use may include solar energy system equipment and uses, such as but not limited to supporting posts and frames, buildings and/or other structure(s), access drives, inverter equipment, wires, cables and other equipment for the purpose of supplying electrical energy produced from solar technologies, whether such use is a principal use, a part of the principal use or an accessory use or structure.

# Article VI: Supplementary Regulations

## **C.14: Solar Energy Systems and Equipment**

### Small-scale solar collector system

#### A. Purpose and intent.

1. The purpose of these regulations is to balance the potential impact on neighbors where solar collectors may be installed near their property while preserving the rights of property owners to install solar collection systems without excess regulation. These regulations are not intended to override the New York State Agriculture and Markets Law.
2. Solar energy is a renewable and nonpolluting energy resource that can prevent fossil fuel emissions and reduce energy load. Energy generated from solar energy systems can be used to offset energy demand on the grid when excess solar power is generated.

#### B. Applicability.

1. The requirements herein shall apply to all solar collector system installations modified or installed after the effective date of this section; with the exception of small portable units.
2. Solar collector system installations for which a valid building permit has been properly 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, except in accordance with Subsection D, Safety, found here in this section. Any modification, expansion or alteration to an existing solar collector system shall only be permitted in accordance with Small scale solar collector system section herein.
3. All solar collector 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.

#### C. Permitting.

1. Rooftop and flush-mounted solar collectors are permitted outright in all zoning districts in the Town of Canajoharie subject to the following conditions:
  - a. Building permits shall be required for installation of all rooftop and flush-mounted solar collectors.
  - b. Height limitations for structures found in Article IV, Schedule of Area and Back Regulations, shall apply.
  - c. Rooftop and flush-mounted solar collector systems are permitted on the following structures:
    - i. All principal structures.
    - ii. All accessory structures that meet the principal structure setbacks as required in each zoning district.
  - d. Rooftop units must be three feet from any chimney and shall not be permitted on any roof overhangs.
  - e. Any solar collector system attached to a pitched roof shall not extend more than three feet from the surface of the angle of the roof.

2. Ground-mounted racks and freestanding solar collectors are permitted as an accessory structure in all zoning districts in the Town of Canajoharie, subject to the following conditions which shall be processed and enforced by the Town Code Enforcement Officer:
  - a. Building permits shall be required for installation of all ground-mounted and freestanding solar collectors.
  - b. Special use permit from the Planning Board is required for all ground-mounted racks and freestanding solar collectors greater than 10 feet in height or greater than 20 feet in length, or if the solar array surface area is greater than 200 square feet in the aggregate in all residential zoning districts. All other ground-mounted racks and freestanding solar collectors shall follow the standard building permit process.
  - c. All ground-mounted racks and freestanding solar collectors shall have a maximum height of 20 feet from ground elevation.
  - d. All ground-mounted racks and freestanding solar collectors installed in the side or rear yards shall comply with the setback requirements for a principal structure found in Article IV, Schedule of Area and Back Regulations.
  - e. Solar collectors may be installed in any front yard but shall be at least 75 feet from the front property line and shall require a special use permit. As per Article VI Supplementary Regulations: B. General Standards: B.2 Corner Lots, all corner lots shall be deemed to have two front yards.
  - f. Solar collectors and energy equipment shall be located in a manner that reasonably minimizes shading of adjacent property and blockage for surrounding properties while still providing adequate solar access for collectors.
  - g. 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.

D. Safety.

1. All solar energy systems and solar collectors must obtain a building permit and shall be designed to be installed to be in conformance with the New York Uniform Fire Prevention and Building Code Standards that are applicable when the building permit is issued.
2. Prior to operation, electrical connections must be inspected by the Town Code Enforcement Officer and by the appropriate electrical inspection person or agency, as determined by the Town.
3. 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.
4. 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.
  - a. 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.

5. If solar storage batteries are included, they must be placed in a secure container or enclosure meeting the requirements of the New York State Building Code when in use. When they are no longer in use, they shall be disposed of in accordance with the laws of New York State Fire Prevention and Building Code and local laws of the Town of Canajoharie and any other applicable laws or regulations.
6. Glare and heat. No direct or unreasonable glare or transmission of heat shall be produced that is perceptible beyond the boundaries of the lot on which such use is situated.

### **Utility-scale solar collector system**

#### **A. Purpose and intent.**

1. The purpose of these regulations is to provide utility-scale solar collector systems through performance criteria that balance the unique characteristics of each site.
2. In any instances where specific permitted uses, area, or height standards, development guidelines and/or review procedures specifically set forth in this section conflict with any other general provision or requirements of the Zoning chapter, the particular provisions set forth herein shall take precedence and control. In all instances not specifically addressed in this section or in Article IV of this chapter, the Zoning chapter shall apply.

#### **B. Bulk and area requirements. The following dimensional requirements shall apply to all utility-scale solar collector systems:**

1. Height.
  - a. All solar collectors shall have a maximum height of 20 feet from ground elevation.
  - b. All buildings and accessory structures associated with the utility-scale solar collector system shall have a maximum height of 35 feet, excluding the solar collector.
2. Setback. All utility-scale solar collector systems and associated buildings, accessory structures, and equipment shall have a minimum setback from any property line of 200 feet; depending on circumstances. A 200 foot setback is not required between an individual property owners' utility scale solar collector system when subdivided based on the NY Public Service Law (PSL Section 66-j), that limits solar facilities to 2 MW per deeded parcel.
3. Lot coverage.
  - a. Impervious surface lot coverage. All utility-scale solar collector systems and associated accessory structures and equipment shall utilize a maximum of 20% impervious lot coverage.
  - b. Pervious surface lot coverage. All utility-scale solar collector systems and associated accessory structures and equipment shall utilize a minimum of 80% permeable lot coverage.
  - c. Tree removal shall be minimized and replanting, at the discretion of the Planning Board, should be considered on parcels where a large amount of trees are being removed in order to place solar arrays.

#### **C. General provisions.**

1. Site plan. All utility-scale solar collector systems shall provide a site plan in accordance with Article IX of this Zoning chapter and the SEQRA Long EAF.
2. Signage. All signage shall be provided as part of site plan review and shall be in accordance with Article VI of this Zoning chapter.
3. Visual.

- a. Utility-scale solar collector systems shall be sited in a manner to have the least possible practical visual effect on the environment.
  - b. A visual environmental assessment form (Visual EAF), landscaping plan and visual assessment report, including appropriate modeling and photography assessing the visibility from key viewpoints identified in the Visual EAF, existing tree lines, surrounding topography, and proposed elevations shall be required.
  - c. Landscaping, screening and/or earth berming shall be provided to minimize the potential visual impacts associated with the utility-scale solar collector systems and its accessory buildings, structures and/or equipment. Additional landscaping, screening and/or earth berming may be required by the Town Board and/or the Planning Board to mitigate visual and aesthetic impacts.
  - d. The associated structure shall be screened, placed underground, depressed, earth bermed or sited below the ridgeline to the greatest extent feasible, particularly in areas of high visibility.
4. Lighting. A lighting plan shall be required. No utility-scale solar collector system shall be artificially lighted unless otherwise required by a federal, state or local authority. Exterior lighting may be provided for associated accessory structures and access entrances as may be determined appropriate for security purposes only.
  5. Utilities. The applicant shall provide written confirmation that the electric grid has the capacity to support the energy generated from the utility-solar collector system. Electrical and land-based telephone utilities extended to serve the site shall be underground.
  6. Access. The applicant shall indicate on a site plan all existing and proposed access to the site, including road, electric power, emergency access, land-based telephone line connection, and other utilities existing and proposed within the property boundaries of the proposed location. Existing roadways shall be used for access to the site whenever possible and determined acceptable by the Planning Board through site plan review.
  7. Glare and heat. No direct or unreasonable glare or transmission of heat shall be produced that is perceptible beyond the boundaries of the lot on which such use is situated.
  8. Ownership. In the case of an application for a utility-scale solar collector system to be located on private lands owned by a party other than the applicant or the Town, a copy of the lease agreement with the property owner shall be filed with the Town.
  9. Proof of insurance. The applicant and the owner of the property where the utility-scale solar collector system is to be located shall file with the Town proof of insurance in a sufficient dollar amount to cover potential personal and property damage associated with construction and operation thereof.
  10. Security provisions. Each site shall have a minimum of an eight-foot security fence to prevent unauthorized access and vandalism to the utility-scale solar collectors and a security program for the site as approved by the Planning Board during site plan review.
  11. Noise. Noise-producing equipment shall be sited and/or insulated to minimize noise impacts on adjacent properties as approved by the Planning Board during site plan review.
  12. The site must be inspected twice a year by the applicant or lessee, and a written report must be filed with the Town Clerk of Canajoharie and sent to the Town Code Enforcement Officer at least once per year.
  13. The following requirements shall be met for decommissioning:

- a. Solar farms and solar power plants which have not been in active and continuous service for a period of 12 consecutive months shall be removed at the owners or operators expense.
  - b. The site shall be restored to as natural a condition as possible within 6 months of removal.
- D. Removal of obsolete/unused facilities. Required sureties for construction, maintenance and removal of utility-scaled solar collector systems.
- a. Decommissioning Code Estimate. The applicant or lessee shall provide a Decommissioning Cost Estimate prepared by a N.Y.S. Licensed Engineer prior to the issuance of the building permits. The cost shall be calculated by taking the Gross Cost plus the Administrated Factor of 20% minus the Salvage Cost in order to determine the Decommissioning Cost Estimate for bonding and insurance purposes. The applicant or lessee must also provide a revised and updated Decommissioning Cost Estimate on every fifth (5<sup>th</sup>) anniversary of the date the project first began continuously delivering electric energy to the electric grid for commercial sales.
  - b. Performance bond and other security. Prior to the issuance of a building permit, a performance bond or other security sufficient to cover the full cost of the removal and disposal of the utility-scale solar collector system and any associated accessory structures upon abandonment of said facility shall be provided by the owner/operator. Any such security must be provided pursuant to a written security agreement with the Town, approved by the Town Board and also approved by the Town Attorney as to form, sufficiency and manner of execution. The form of security shall be limited to those permissible under NYS Town Law. If the owner of the site fails to comply with any conditions of the approval during construction or as part of the long-term maintenance of the site, all costs of the Town incurred to comply with conditions of the approval shall be paid using the surety provided by the applicant. Failure to comply with the conditions of the approval or to maintain an acceptable level of surety will result in revocation of the certificate of occupancy.
  - c. Removal. The utility-scale solar collector system, including any accessory structures and/or equipment, shall be dismantled and removed from the site when the utility-scale solar collector system has been inoperative or abandoned for 12 consecutive months. As a condition of the certificate of compliance, applicants shall post a surety in an amount and form acceptable to the Town for the purposes of removal or abandonment. The amount shall be determined by an estimate of a NYS Certified Engineer. Acceptable forms shall include, in order of preference: cash; letter of credit; or a bond that cannot expire; or a combination thereof. Such surety will be used to guarantee removal of the utility-scale solar collector system should the system be abandoned. Abandonment shall be assumed by the Town if the annual documentation as required in Utility scale solar collector system section (12) is not provided by the owner, applicant or lessee for one year to the Town of Canajoharie Code Enforcement Officer. With the assistance of a NYS Certified Engineer the Town Code Enforcement Officer shall then provide written notice to the owner to remove the utility-scale solar collector system, and the owner shall have three months from written notice to remove the utility-scale

solar collector system, including any associated accessory structures and/or equipment, and restore the site to a condition approved by the Planning Board; to include, but not limited to, water and soil contamination. If the owner, applicant or lessee fails to remove any associated structures or restore the site to the condition approved by the Planning Board, all costs of the Town incurred to comply with this condition shall be paid using the surety provided by the applicant

E. Building permit fees for solar panels.

- a. 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.

F. Effective date.

- a. This law shall take effect after its adoption upon filing with the New York State Secretary of State.