

Recreation and Historic Preservation.

## Chapter 186

### SOLAR ENERGY SYSTEMS

**[HISTORY: Adopted by the Town Board of the Town of Massena 9-16-2020 by L.L. No. 2-2020. Amendments noted where applicable.]**

#### **§ 186-1. Purpose.**

This chapter 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 freestanding, ground- or pole-mounted and roof-mounted solar energy system installations based upon certain placement. This legislation is not intended to override agricultural exemptions that are currently in place.

#### **§ 186-2. Definitions.**

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

**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)** — The incorporation of photovoltaic (PV) material into a building's envelope. Technologies include PV shingles or tiles, PV laminates, and PV glass. Examples of placement include vertical facades, semitransparent skylights, awnings, fixed awnings, and roofs.

**COLLECTIVE SOLAR** — Installations of solar energy systems that are owned collectively through a homeowners' association, community or municipal system, adopt-a-solar-panel programs, or other similar arrangements.

**GLARE** — A continuous source of excessive brightness, relative to diffused lighting. This is not a direct reflection of the sun, but rather a reflection of the bright sky around the sun. Glare is significantly less intense than glint.

**GLINT** — A momentary flash of light that may be produced as a direct reflection of the sun on a solar collection system.

**GROUND-MOUNTED SYSTEM** — A solar energy system that is anchored to the ground and attached to a pole or similar mounting system, detached from any other structure.

**MAJOR SOLAR COLLECTION SYSTEM** — An area of land or other area used for a solar collection system principally used to capture solar energy and convert it to electrical energy to transfer to the public electric grid but that also may be for on-site use and is intended to be used for any purpose, other than private, or residential, or agricultural use, including community-based systems. Major solar collection systems consist of one or more freestanding ground-mounted or roof-mounted solar collector devices. Major solar collection systems are those systems which generate more than 110% of the energy demand for on-site use. Major solar collection systems do not include any type of energy storage system such as battery banks or

compressed air. Any energy storage system would require additional review and approval.

**MINOR OR ACCESSORY SOLAR COLLECTION SYSTEM** — A solar photovoltaic cell, panel, array, solar hot air or water collector device which relies upon solar radiation as an energy source for collection, inversion, storage, and distribution of solar energy for electricity generation or transfer of stored heat, secondary to the use of the premises for other lawful purposes. Minor solar collection systems may consist of building-integrated photovoltaics, ground-mounted or roof-mounted solar collector devices. Minor or accessory solar collection systems that do not generate more than 110% of the energy demand of a farm operation in an agricultural district shall be considered as farm equipment under New York State Agriculture and Markets Law § 301.

**ROOF-MOUNTED SYSTEM** — A solar panel system located on the roof of any legally permitted building or structure for the purpose of producing electricity for on-site or off-site consumption.

**SOLAR ACCESS** — Space that is open to the sun and clear of overhangs or shade. Structures constructed on private property will not infringe on the rights of adjacent properties.

**SOLAR ENERGY EQUIPMENT** — Electrical material, hardware, inverters, conduit, storage devices, or other electrical and photovoltaic equipment associated with the production of energy.

**SOLAR PANEL** — A device capable of collecting and converting solar energy into electrical energy.

### **§ 186-3. Applicability.**

- A. The requirements of this chapter shall apply to all solar energy systems installed or modified after the effective date of this chapter, excluding general maintenance and repair.
- 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 chapter shall not be required to meet the requirements herein.
- C. Nothing contained in this chapter 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 State Public Service Law § 66-j or similar New York State or federal law or regulation.

### **§ 186-4. General requirements.**

- A. All solar energy systems shall be designed, erected, and installed in accordance with all applicable electrical and building codes, the manufacturer's installation instructions, regulations, and industry standards, as referenced in the New York State Uniform Fire Prevention and Building Code Act<sup>17</sup> and the Town Code. Prior to operation, the electrical connections must be inspected by the Code Enforcement Officer or by an appropriate electrical inspection person or agency, as determined by the Town. In addition, any connection to the public utility grid must be inspected by the appropriate public utility.
- B. All solar collection systems shall require a building permit.
- C. All solar collection systems shall not obstruct solar access to adjacent properties.

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17. Editor's Note: See Article 18 of the Executive Law.

- D. All solar collectors and other facilities shall be designed and located in order to minimize reflective glare and/or glint toward any inhabited buildings on adjacent properties and roads.

**§ 186-5. Solar collectors and installations for minor systems.**

- A. Roof-mounted systems are permitted as accessory uses in all zoning districts, subject to the following requirements:
- (1) The distance between the roof and highest edge or point of the system shall be in accordance with the New York State Uniform Fire Prevention and Building Code.
- B. Ground-mounted and freestanding solar collectors are permitted as accessory structures in all zoning districts, subject to the following requirements:
- (1) The location of the solar collectors meets all applicable setback requirements of the zone in which they are located.
  - (2) The height of the solar collectors and any mounts shall not exceed the height restrictions of the zone when oriented at maximum tilt.
  - (3) The solar collectors may not be located closer to a front lot line than the principal building on a property. If the side or rear yard is visible from adjacent properties and roads, a solid fence, berm, or vegetative screening that conforms to local requirements may be installed along shared lot lines to minimize visual impact to neighboring properties.
- C. When 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 Uniform Fire Prevention and Building Code when in use and when no longer used shall be disposed of in accordance with the laws and regulations of St. Lawrence County and other applicable laws and regulations.
- D. Decommissioning: minor or accessory solar collection systems. Decommissioning requirements for small-scale minor or accessory solar energy systems and solar energy systems designed for subdivision use using freestanding or ground-mounted solar collectors. If a freestanding or ground-mounted solar collector(s) 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. In the event that the property owner fails to remove the aforesaid nonfunctioning system within the time prescribed herein, the Town may enter upon the land where such system has been installed and remove same. All expenses incurred by the Town in connection with the removal of the nonfunctioning system shall be assessed against the land on which such freestanding or ground-mounted solar collector(s) is located and shall be levied and collected in the same manner as provided in Article 15 of the New York Town Law for the levy and collection of a special ad valorem levy.

**§ 186-6. Major solar collection systems.**

- A. Major solar collection systems are permitted through the issuance of a special use permit within the General-Industrial and Residential-Agricultural Zoning Districts in the Town,

and subject to site plan review in accordance with the following criteria set forth in this section.

- (1) Height and setback restrictions.
  - (a) The maximum height for freestanding solar panels located on the ground or attached to a framework located on the ground shall not exceed 20 feet in height above the ground.
  - (b) The minimum setback from property lines shall be 25 feet, unless adjacent to a residential neighbor. The setback for residential neighbors shall be 100 feet.
  - (c) Fencing may be provided around all equipment and solar collectors to provide screening from adjacent residential properties and roads. Fencing shall not be barbed wire. When fencing will enclose the perimeter of the site or facility, wildlife-friendly fencing that allows the passage of small mammals and reptiles and is designed to minimize wildlife injury and death due to entanglement or strangulation shall be used on sites having a solar facility footprint greater than five acres. Exceptions can be made by the Planning Board for sites that have limited surrounding wildlife habitat.
- (2) Design standards.
  - (a) For adjoining arrays, the number of features installed for the facility should be consolidated and kept to a minimum, such as the use of shared access roads and fencing.
  - (b) Removal of trees and other existing vegetation should be minimized or offset with planting elsewhere on the property.
  - (c) To the extent practicable, major solar collection systems located in prime farmland or farmland of statewide importance shall be constructed in accordance with the solar construction mitigation requirements of the New York State Department of Agriculture and Markets.
  - (d) Proposed major solar collection systems shall minimize the displacement of prime soils that are in active agricultural production. The site plan shall depict the location and extent of prime soils, prime soils if drained, soils of statewide importance, and indicate whether the parcel(s) is/are receiving an agricultural valuation. The site plan shall also depict the location and extent of current agricultural uses on the land (e.g., rotational crops, hay land, unimproved/improved pasture, support lands, and fallow lands), the location of diversions and ditches, and areas where tile drainage has been installed. Prime soils, prime soils if drained, and soils of statewide importance that are in agricultural production are a valuable and finite resource. The site plan should include a cross section of any subsurface foundations that will be used for the solar array. In the event the array utilizes at-grade ballast footers, the underlayment should include a bed of crushed stone atop monofilament woven geotextile fabric so that the stone can be readily removed from the site when the facility is decommissioned. A plan for clearing and/or grading the site and stormwater pollution prevention plan (SWPPP) for the site must be included.

- (e) Roadways within the site shall be built along field edges and along elevation contours where practical, constructed at grade and have a maximum width of 16 feet. Roadways shall not be constructed of impervious materials and shall be designed to minimize the extent of roadways constructed and soil compaction.
  - (f) All on-site utility and transmission lines shall, to the extent feasible, be placed underground. Any aboveground transmission lines that are used to accommodate the facility shall require utility poles that are tall enough and installed at widths able to accommodate farm machinery and equipment. The installation of guy wires to utility poles is discouraged.
  - (g) All mechanical equipment, including any structure for batteries or storage cells, shall be enclosed by a minimum seven-foot-high fence, as required by the National Electric Code (NEC), with a self-locking gate to prevent unauthorized access.
  - (h) Any exterior lighting installed within the facility shall be downcast and dark-sky compliant with recessed bulbs and full cutoff shields.
- (3) Signs.
- (a) A sign not to exceed 12 square feet shall be displayed on or near the main access point and shall list the facility name, owner and phone number.
  - (b) As required by the NEC, disconnect and other emergency shutoff information shall be clearly displayed on a light-reflective surface. A clearly visible warning sign concerning voltage must be placed at the base of all pad-mounted transformers and substations not to exceed four square feet.
- (4) Safety.
- (a) The owner/operator shall provide evidence that a copy of the site plan application has been submitted to the Fire Chief of the Massena Fire Department. All means of shutting down the photovoltaic solar energy system shall be clearly marked on the site plan and building permit applications.
  - (b) The owner/operator shall provide evidence detailing how the solar installation will be protected against cybersecurity threats when connecting to the grid.
- B. Decommissioning. Prior to removal of a major solar collection system, a demolition permit for removal activities shall be obtained from the Town of Massena.
- (1) Decommissioning bond.
- (a) Prior to issuance of a building permit for a major solar collection system, the owner or operator of the solar energy system shall post a surety in an amount and form acceptable to the Town for the purposes of removal in the event the major solar collection system is abandoned. The amount of the surety required under this section shall be 125% of the projected cost of removal of the solar energy system and restoration of the property with an escalator of 2% annually for the life of the solar energy system. Acceptable forms shall include, in order of preference, cash; irrevocable letter of credit; or a bond that cannot expire; or a combination thereof. Such surety will be used to guarantee removal of the

major solar collection system should the system be abandoned. In such case, the Town Building Inspector/Code Enforcement Officer shall then provide written notice to the owner or operator to remove the major solar collection system, and the owner or operator shall have one year from written notice to remove the solar energy system, including any associated accessory structures and/or equipment, and restore the site to a condition approved by the Planning Board. If the owner, operator, applicant or lessee fails to remove any associated structures or restore the site to the condition approved by the Board, all costs of the Town incurred to enforce or comply with this condition shall be paid using the surety provided by the applicant.

- (2) Decommissioning plan. An application for a major solar collection system shall include a decommissioning plan. Removal of a major solar collection system must be completed in accordance with the decommissioning plan. The decommissioning plan shall:
- (a) Specify that after the major solar collection system will no longer be used, it shall be removed by the owner and/or operator or any subsequent owner/operator and shall include a signed statement from the applicant acknowledging such responsibility. The application shall disclose the lease start date, length of the original lease, and number of options and time frames if the lease is renewed.
  - (b) Demonstrate how the removal of all infrastructures (including but not limited to aboveground and below-ground equipment, structures and foundations) and the remediation of soil and vegetation shall be conducted to return the parcel to its original state prior to construction. In areas where agricultural production will resume, revegetation shall include native plants and seed mixes and exclude any invasive species. The reclamation of land when the major solar collection system is decommissioned shall include the removal of rock, construction materials and debris to a depth of four feet, the decompaction of soils to a depth of 18 inches to 24 inches, regrading and reseeded the site to its original condition prior to the project construction.
  - (c) Include photographs or archival color images of the proposed site plan area for the major solar collection system. Such information must, in aggregate, adequately portray the entire property for the purpose of future reference when soil and vegetation remediation of the property occurs.
  - (d) State that disposal of all solid and hazardous waste shall be in accordance with local, state and federal waste disposal regulations.
  - (e) Provide an expected time line for decommissioning within the 365-day period set forth below.
  - (f) Provide a cost estimate detailing the projected cost of executing the decommissioning plan, subject to third-party verification at the developer's expense, if required by the Town.
  - (g) Within 30 days of changing ownership, notice shall be provided to the Town with the name of the new owner and contact information.

C. Abandonment and removal.

- (1) A major solar collection system shall be deemed to be abandoned after it has ceased operating for a continuous one-year period.
- (2) Upon cessation of operations of a major solar collection system for a period of one year, the Town may notify the owner and/or operator of the facility to implement the decommissioning plan. Within 180 days of notice being served, the owner and/or operator can either restore operation equal to 80% of approved capacity or implement the decommissioning plan.
- (3) In the event that construction of the major solar collection system has been started but is not completed and functioning within 18 months of the issuance of the final site plan, the Town may notify the operator and/or the owner to complete construction and installation of the facility within 365 days. If the owner and/or operator fail to perform, the Town may require the owner and/or operator to implement the decommissioning plan. The decommissioning plan must be completed within 180 days of notification by the Town to implement the decommissioning plan.
- (4) Applications for extensions of the time periods set forth in this subsection of no greater than 180 days shall be reviewed by the Town Board.
- (5) Upon recommendation of the Building Inspector/Code Enforcement Officer, the Town Board may waive or defer the requirement that a major solar collection system be removed if it determines that retention of such facility is in the best interest of the Town.
- (6) If the owner and/or operator fails to fully implement the decommissioning plan within the prescribed time period and restore the site as required, the Town may use the financial surety posted by the owner and/or operator to decommission the site, or it may proceed with decommissioning at its own expense and recover all expenses incurred for such activities from the defaulted owner and/or operator. Any costs incurred by the Town shall be assessed against the property, shall become a lien and tax upon said property, shall be added to and become a part of the taxes to be levied and assessed thereon, and enforced and collected with interest by the same officer and in the same manner as other taxes.

**§ 186-7. Special use permit requirements.**

- A. In addition to the special use permit requirements of the Town Code, the following shall be provided to the Town:
  - (1) Verification of utility notification. Any foreseeable infrastructure upgrades shall be documented and submitted. Off-grid systems are exempt from this requirement.
  - (2) Name, address, and contact information of the applicant, property owner(s), and agent submitting the project. In the event ownership of the facility changes hands, or if the lease is terminated, notification shall be sent to the Town within 30 days of the transfer or termination date. The notice shall include the name and contact information of the new owner(s). The new owner shall then be bound by the terms of the original agreement.
- B. If the property of the proposed project is to be leased, legal consent between all parties, specifying the use(s) of the land for the duration of the project, including easements and

other agreements, shall be submitted.

- C. If the array will be sited on farmland located in an agricultural district, an agricultural data statement shall be completed.
- D. Site plan. Site plan approval is required.
- E. Blueprints signed by a professional engineer or registered architect of the solar installation showing the layout of the system.
- F. Property operation and maintenance plan. A property operation and maintenance plan is required, describing continuing photovoltaic maintenance and property upkeep, such as mowing, trimming, etc. Any such plan shall propose that the property maintain a neat and orderly appearance consistent with surrounding properties. The property shall always be maintained in a manner consistent with all properties within the Town of Massena.
- G. The Town of Massena has established that there shall be a community benefit to maximize the benefits of a solar project to the Town of Massena and its residents. The benefit shall be determined via an agreement negotiated between the Town and the developer/owner.

**§ 186-8. Fees.**

- A. The fees for a special use permit, site plan review, and zoning permit for a solar energy system shall be set from time to time by Town Board resolution.
- B. The applicant for either state or local siting approval shall deliver to the Town Board, along with its application if local approval is sought, and concurrent with the filing of an application through a state-level permitting process, if applicable, an amount equal to 1% of the estimated cost of the project (the "initial deposit"). This sum shall be held by the Town in a non-interest-bearing account, and these funds shall be available to the Town to pay consultants and attorneys engaged by the Town to assist in application review if a local permit is sought, and to pay consultants and attorneys engaged by the Town to assist in review of an application through a state-level permitting process should awarded intervenor funds be insufficient to fully participate in the state-level review process or should intervenor funds be otherwise exhausted. Following the grant or denial of the state or local application, the Town shall return to the applicant any excess remaining in escrow. If the escrow account has been depleted prior to grant or denial of the application, the applicant shall deposit such funds necessary for the Town to pay any outstanding fees to said consultants.