

# **Bulletin**

**September 19, 2017**

RE: Special Town Meeting Article 13 of March 28, 2017

Approved by the Attorney General

From the Office of the Town Clerk  
Kathleen M. Spofford

**The Amendments adopted under Article 13 at the Special Town Meeting, March 28, 2017, have been approved by the Office of the Attorney General on September 19, 2017 with the comments provided below:**

*Article 13 amends the Town's zoning by-laws to delete the existing Section 145/86, "Ground-Mounted Solar Energy District," and insert a new Section 125/86 "Large-Scale Ground-Mounted Solar Installations." Large-Scale Ground-mounted solar installations (LSGMS) are allowed by right, subject to Site Plan Review, on parcels over 10 acres in the Residential A and Residential B districts, provided that the solar installation does not exceed 16 acres or 30% of the total lot. LSGMS installations are allowed by rights, subject to Site Plan Review, in the Industrial and Outlying Commercial districts, provided that the solar installation does not exceed 16 acres or 30% of the total lot. LSGMS installations are prohibited in the Downtown Commercial and Neighborhood Commercial districts. And LSGMS installations are allowed by Special Permit with the Site Plan Review in the Residential A and Residential B districts on parcels less than 10 acres, provided the solar installation does not exceed 16 acres or 30% of the total lot.*

*General Laws Chapter 40A, Section 3, protects solar energy systems and the building of structures that facilitate the collection of solar energy, and provides in pertinent part as follows:*

*No zoning ordinance or bylaw shall prohibit or unreasonably regulate the installation of solar energy systems or the building of structures that facilitate the collection of solar energy, except where necessary to protect the public health, safety or welfare.*

*There are no court decisions to guide the Town or this Office in determining what qualifies as an unreasonable regular of solar uses in contravention of G.L. c. 40A, §3. However, the Town should be mindful of this requirement in applying the amendments adopted under Article 13 and consult closely with Town Counsel during the process. In light of the protections granted to solar energy systems in G. L. c. 40A, §3, we highlight the following provisions in the new Section 145-86.*

1. Section 145-86 (K) – Safety and Environmental Standards.  
Section 145-86 (K) (4), "Control of Vegetation," provides:

*Herbicides shall not be used to control vegetation at the solar electric installation unless the area is a dual use then the agricultural definition of Townsend Bylaw § 150-3 applies. Mowing, grazing or using of geotextile materials underneath the solar array are possible alternatives.*

*Section 145-86 (K) (4) must be applied consistent with the Pesticide Control Act, which establishes the Act's exclusive authority in regulating, the labeling, distribution, sale, storage, transportation, use and application, and disposal of pesticides in the commonwealth." See G.L. c 132B, §2, as amended by Chapter 264 of the Acts of 1994 (emphasis supplied). Herbicides are included in the definition of pesticides under G.L. c*

132B, §2.<sup>2</sup> *The Town should consult with Town Counsel regarding any questions on this issue.*

2. *Section 145/86 (N) – Financial Surety.*

*Section 145/86 (N) requires in the proponent of a large-scale ground-mounted solar project to provide “a form of surety, either through [an] escrow account, bond or otherwise” to cover the cost of removal and remediation of the landscape. General Laws Chapter 44, § 53, would require that performance security funds of the sore contemplated here must be deposited with the Town Treasurer and made part of the Town’s general fund (and subject to future appropriation), unless the Legislature has expressly made other provisions that are applicable to such receipt. Recently, the State adopted Chapter 218 of the Acts of 2016, “An Act Modernizing Municipal Finance and Government.” Among other amendments, Section 92 of the Act, amends G.L. c. 44 by inserting a new Section 53G ½, which provides as follows:*

*Notwithstanding section 53, in a...town that provides by by-law...rule, regulation or contract for the deposit of cash, bonds, negotiable securities, sureties or other financial guarantees to secure the performance of any obligation by an applicant as a condition of a license, permit or other approval or authorizations, the monies or other security received may be deposited in a special account. Such by-law...rule or regulation shall specify: (1) The type of financial guarantees required; (2) the treatment of investment earnings, if any; (3) the performance required and standards for determining satisfactory completion or default; (4) the procedures the applicant must follow to obtain a return of the monies or other security; (5) the use of monies in the account upon default; and (6) any other conditions or rules as the...town determines are reasonable to ensure compliance with the obligations. Any such account shall be established by the municipal treasurer in the municipal treasury and shall be kept separate and apart from other monies. Monies in the special account may be expended by the authorized board, commission, department or officer, without further appropriation, to complete the work or perform the obligations, as provided in the by0law...rule or regulation. This section shall not apply to deposits or other financial surety received under section 81U of chapter 41 or other general or special law.*

*In order for the Town to deposit bond proceeds into a special account, the Town would have to comply with the requirements of G.L. c. 44, § 53G ½. Otherwise, bond proceeds must be deposited with the Town Treasurer and made part of the Town’s general fund, pursuant to G.L. c. 44, §53. The Town should consult with Town Counsel on the proper application of Section 145/86 (N).*

**Article as voted by Special Town Meeting, March 28, 2017**

**ARTICLE 13**

I move that the Town vote to accept the following to replace §145-86 Ground-Mounted Solar Energy District.

**§145-86 Large-Scale Ground-Mounted Solar Installations**

**A. Purpose**

Recognizing the need to allow for alternative energy sources, in particular large-scale solar installations, given that the zoning in Townsend is largely Residential, coupled with the need to preserve the rural and residential character of the Town of Townsend, the purpose of this bylaw is to promote the creation of new large-scale ground-mounted solar photovoltaic installations by providing standards for the placement, design, construction, operation, monitoring, modification and removal of such installations that address public safety, minimize impacts on scenic, natural and historic resources and to provide adequate financial assurance for the eventual decommissioning of such installations.

The provisions set forth in this section shall apply to the construction, operation, and/or repair of large-scale ground-mounted solar photovoltaic installations.

(1) Applicability. This section applies to large-scale ground-mounted solar photovoltaic installations proposed to be constructed after the effective date of this section. This section also pertains to physical modifications that materially alter the type, configuration, or size of these installations or related equipment.

**B. Definitions**

**As-of-Right Siting:** As-of-Right Siting shall mean that development may proceed without the need for a special permit, variance, amendment, waiver, or other discretionary approval. As-of-right development shall be subject to site plan review to determine conformance with local zoning ordinances or bylaws. Projects cannot be prohibited, but can be reasonably regulated through Planning Board Site Plan Review Special Permit §145-42.

**Building Inspector:** The inspector of buildings, building commissioner, or local inspector, or person or board designated by local ordinance or bylaw charged with the enforcement of the zoning ordinance.

**Building Permit:** A construction permit issued by an authorized building inspector; the building permit evidences that the project is consistent with the state and federal building codes as well as local zoning bylaws, including those governing ground-mounted large-scale solar photovoltaic installations.

**Photovoltaic System (also referred to as Photovoltaic Installation):** An active solar energy system that converts solar energy directly into electricity.

**Rated Nameplate Capacity:** The maximum rated output of electric power production of the photovoltaic system in watts of Direct Current (DC).

**Solar Access:** The access of a solar energy system to direct sunlight.

**Solar Collector:** A device, structure or a part of a device or structure for which the primary purpose is to transform solar radiant energy into thermal, mechanical, chemical, or electrical energy.

**Solar Energy:** Radiant energy received from the sun that can be collected in the form of heat or light by a solar collector.

**Solar Energy System:** A device or structural design feature, a substantial purpose of which is to provide daylight for interior lighting or provide for the collection, storage and distribution of solar energy for space heating or cooling, electricity generation, or water heating.

**Solar Energy System, Active:** A solar energy system whose primary purpose is to harvest energy by transforming solar energy into another form of energy or transferring heat from a collector to another medium using mechanical, electrical, or chemical means.

**Solar Energy System, Grid-Intertie:** A photovoltaic system that is connected to an electric circuit served by an electric utility.

**Solar Energy System, Ground-Mounted:** An active solar energy System that is structurally mounted to the ground and is not roof-mounted.

**Solar Energy System, Large-Scale:** An Active Solar Energy system that occupies more than 40,000 square feet of surface area (equivalent to a rated nameplate capacity of about 250kW DC or greater).

**Solar Energy System, Off-Grid:** A photovoltaic solar energy system in which the circuits energized by the solar energy system are not electrically connected in any way to electric circuits that are served by an electric utility.

**Solar Energy System, Passive:** A solar energy system that captures solar light or heat without transforming it to another form of energy or transferring the energy via a heat exchanger.

**Solar Thermal System:** An active solar energy system that uses collectors to convert the sun's rays into useful forms of energy for water heating, space heating, or space cooling.

**Site Plan Review:** Review by the Site Plan Review Authority, which is the Planning Board, to determine conformance with local zoning ordinances or bylaws specifically Site Plan Review Special Permit §145-42.

Site Plan Review Authority: For purposes of this bylaw, the Planning Board shall be the Site Plan Review Authority.

Special Permit: For the purposes of this bylaw the Planning Board shall be the Special Permit granting authority.

Wetlands: Refer to Townsend Wetland Bylaw §138, Townsend Wetlands Regulation 150, MGL c. 131 §40, 310 CMR 10.00, and EPA Section 1002 definitions found here:

<https://www.epa.gov/wetlands/what-wetland>.

Zoning Enforcement Authority: The Zoning Enforcement Officer will be the Building Inspector.

C. General Requirements for all Large-scale Ground-Mounted Solar Power Generation Installations. The following requirements are common to all solar photovoltaic installations to be sited in designated locations:

(1) Compliance with Laws, Ordinances and Regulations

The construction and operation of all large-scale solar photovoltaic installations shall be consistent with all applicable local, state and federal requirements, including but not limited to all applicable safety, construction, electrical, and communications requirements. All buildings and fixtures forming part of a solar photovoltaic installation shall be constructed in accordance with the State Building Code.

(2) Building Permit and Building Inspection

No large-scale ground-mounted solar photovoltaic installation shall be constructed, installed or modified as provided in this section without first obtaining a building permit.

(3) Fees

The application for a permit for a large-scale ground-mounted solar photovoltaic installation shall be accompanied by a \$300 fee.

D. Large-scale Solar Siting. The Town of Townsend hereby enacts the following section to permit large-scale commercial solar installations to operate in both commercial and residential districts without the requirement of obtaining a special permit.

(1) Ground-mounted solar over 250 KW is permitted as of right according to Table A (Residential) and Table B (Commercial) if the following conditions are met:

(a) The solar installation shall cover at most 30% of the lot.

(b) The solar installation shall not cover more than 16 acres.

(c) The solar installation shall be shielded from any town road or home as per site plan review in order to maintain the character of the neighborhood and town. The neighborhood and town view shall be preserved.

(d) All requirements of section D.(inclusive).

If the above conditions (a) – (d) are not met, a special permit shall be obtained according to Table C.

Table A – Residential by Right

Residential Parcels over 10 Acres		
	Residential A	Residential B
Large-Scale Ground-mounted Solar	Site Plan Review (no solar installation shall exceed 16 acres or 30% of the total lot)	Site Plan Review (no solar installation shall exceed 16 acres or 30% of the total lot)

Table B – Commercial by Right

Commercial				
	Industrial	Outlying Commercial	Downtown Commercial	Neighborhood Commercial
Large-Scale Ground-mounted Solar	Site Plan Review (no solar installation shall exceed 16 acres or 30% of the total lot)	Site Plan Review (no solar installation shall exceed 16 acres or 30% of the total lot)	Not Allowed	Not Allowed

Table C – Residential Special Permit Site Plan Review

Residential Parcels Less than 10 Acres		
	Residential A	Residential B
Large-Scale Ground-mounted Solar	Special Permit and Site Plan Review (no solar installation shall exceed 16 acres or 30% of the total lot)	Special Permit and Site Plan Review (no solar installation shall exceed 16 acres or 30% of the total lot)

E. Site Plan Review. Large-scale ground-mounted solar photovoltaic installations as noted in the table under use regulations shall undergo site plan review by the Site Plan Review Authority prior to construction, installation or modification as provided in this section.

(1) All plans and maps shall be prepared, stamped and signed by a Professional Engineer licensed to practice in the Commonwealth of Massachusetts.

(2) Required Documents. Pursuant to the site plan review process, the project proponent shall provide the following documents:

(a) A site plan showing:

- [1] Property lines and physical features, including roads, for the project site;
- [2] Proposed changes to the landscape of the site, grading, vegetation clearing and planting, exterior lighting, screening vegetation or structures;
- [3] Blueprints or drawings of the solar energy system signed by a Professional Engineer licensed to practice in the Commonwealth of Massachusetts showing the proposed layout of the system, any potential shading from nearby structures, the distance between the proposed solar collector and all property lines and existing on-site buildings and structures, and the tallest finished height of the solar collector;
- [4] One or three-line electrical diagram detailing the solar photovoltaic installation, associated components, and electrical interconnection methods, with all Massachusetts Electrical Code (527 CMR 12.00) compliant disconnects and overcurrent devices;
- [5] Zoning district designation for the parcel(s) of land comprising the project site (submission of a copy of a zoning map with the parcel(s) identified is suitable for this purpose).
- [6] Locations of:
  - a) active farmland and prime farmland soils,
  - b) prime forest,
  - c) wetlands,
  - d) permanently protected open space,
  - e) Priority Habitat Areas,
  - f) BioMap 2 Critical Natural Landscape Core Habitat mapped by the Natural Heritage & Endangered Species Program (NHESP),
  - g) "Priority Wildlife Habitat" mapped by the DEP,
  - h) floodplains or inundation areas for moderate or high hazard dams, and
  - i) local or National Historic Districts.

(b) A project contact sheet showing:

- [1] Name, address, and contact information for proposed system installer.
- [2] Name, address, phone number and signature of the project proponent, as well as all co-proponents or property owners, if any.

[3] The name, contact information and signature of any agents representing the project proponent.

(c) A project design plan showing

[1] Proposed type of screening material to minimize the visual impact of the solar field.

[2] Proposed type of fencing around the solar field.

[3] Documentation of the major system components to be used, including the PV panels, mounting system, and inverter.

(d) GIS view shed analysis.

(e) Documentation of actual or prospective access and control of the project site.

(f) An Operation & Maintenance Plan (see also Section G).

(g) Proof of contract liability insurance during construction and prior to.

(h) A public outreach plan, including a project development timeline, which indicates how the project proponent will meet the required site plan review notification procedures and otherwise inform abutters and the community (reference abutters notification in Townsend Zoning Bylaw §145-42).

(i) Financial Surety Plan (see Section N).

F. Site Control. The project proponent shall submit documentation of actual or prospective access and control of the project site sufficient to allow for construction and operation of the proposed solar photovoltaic installation. Fencing shall be in keeping with the scenic character of the town and shall be provided to control access to a large-scale ground-mounted solar photovoltaic facility in order to prevent access to the facility. Fencing along the installation perimeter shall be provided to control access around the photovoltaic solar area with a vegetative buffer outside of the fencing. Fencing shall not include barbed or razor wire.

G. Operation & Maintenance Plan. The project proponent shall submit a plan for the operation and maintenance of the large-scale ground-mounted solar photovoltaic installation, which shall include measures for maintaining safe access to the installation, storm water controls, as well as general procedures for operational maintenance of the installation.

H. Utility Notification. No large-scale ground – mounted solar photovoltaic installation shall be constructed until evidence has been given to the Site Plan Review Authority that the utility company that operates the electrical grid where the installation is to be located has been informed of the solar photovoltaic installation owner or operator’s intent to install an interconnected customer-owned generator system. The owner has submitted notification to the utility company of the customer’s intent to install an interconnected customer-owned generator. Off-grid systems shall be exempt from this requirement.

I. Dimension and Density Requirements

(1) Setbacks. For large - scale ground-mounted solar photovoltaic installations, front, side and rear setbacks shall be as follows:

- (a) Front yard: The front yard depth shall not be less than 100 feet.
- (b) Side yard: Each side yard shall have a depth at least 100 feet
- (c) Rear yard: The rear yard depth shall be at least 100 feet
- (d) Squannacook River: The solar array shall be 300 feet from the river.
- (e) Other wetlands: The solar array shall be at least 100 feet.

(2) Appurtenant Structures. All appurtenant structures to large- scale ground-mounted solar photovoltaic installations shall be subject to reasonable regulations concerning the bulk and height of structures, lot area, setbacks, open space, parking and building coverage requirements. All such appurtenant structures, including but not limited to, equipment shelters, storage facilities, transformers, and substations, shall be architecturally compatible with each other. Whenever reasonable, structures should be shaded from view by vegetation and/or joined or clustered to avoid adverse visual impacts.

J. Design Standards

(1) Lighting. Lighting of solar photovoltaic installations shall be consistent with local, state and federal law. Lighting of other parts of the installation, such as appurtenant structures, shall be limited to that required for safety and operational purposes, and shall be reasonably shielded from abutting properties. Lighting of the solar photovoltaic installation shall be directed downward and shall incorporate full cut-off fixtures to reduce light pollution. Lighting shall meet the standards of Townsend Zoning (Zoning Bylaw §§145-52 and 145-61 (Outdoor lighting)).

(2) Signage. Signs for large- scale ground-mounted solar photovoltaic installations shall comply with Townsend Zoning sign bylaw. A sign consistent with Townsend’s municipality’s outdoor lighting and sign bylaw shall be required to identify the owner and provide a 24-hour emergency contact phone number.

Solar photovoltaic installations shall not be used for displaying any advertising except for reasonable identification of the manufacturer or operator of the solar photovoltaic installation.

- (3) Utility Connections. Reasonable efforts, as determined by the Site Plan Review Authority, shall be made to place all utility connections from the solar photovoltaic installation underground, depending on appropriate soil conditions, shape, and topography of the site and any requirements of the utility provider. Electrical transformers for utility interconnections may be above ground if required by the utility provider.
- (4) Noise. Noise generated by Large-Scale Ground-Mounted Solar Electric Installations and associated equipment and machinery shall conform to applicable state and local noise regulations, including the DEP's Division of Air Quality noise regulations, 310 CMR 7.10.

#### K. Safety and Environmental Standards

- (1) Emergency Services. The large-scale solar photovoltaic installation owner or operator shall provide a copy of the project summary, electrical schematic, and site plan to the local fire chief. Upon request the owner or operator shall cooperate with local emergency services in developing an emergency response plan. All means of shutting down the solar photovoltaic installation shall be clearly marked. The owner or operator shall identify a responsible person for public inquiries throughout the life of the installation. The owner or operation shall provide a 24-hour contact number to the fire chief, police chief, and emergency management director.
- (2) Land Clearing, Soil Erosion and Habitat Impacts. Clearing of natural vegetation shall be incidental to the construction, operation and maintenance of the large – scale ground-mounted solar photovoltaic installation or otherwise prescribed by applicable laws, regulations, and bylaws.

All clearing shall conform to Townsend General Bylaw §85 and Zoning Bylaw §145-41.

- (3) Stormwater Run Off. All storm water runoff shall be addressed to ensure compliance with Townsend General Bylaw 85.

Surfaces under solar collectors shall be of non-impervious surfaces.

- (4) Control of Vegetation. Herbicides shall not be used to control vegetation at the solar electric installation unless the area is a dual use then the agricultural definition of Townsend Bylaw §150-3 applies. Mowing, grazing or using geotextile materials underneath the solar array are possible alternatives.

L. Monitoring and Maintenance

- (1) Solar Photovoltaic Installation Conditions. The large - scale ground-mounted solar photovoltaic installation owner or operator shall maintain the facility in good condition. Maintenance shall include, but not be limited to, painting, structural repairs, and integrity of security measures. Site access shall be maintained to a level acceptable to the local Fire Chief and Emergency Medical Services. The owner or operator shall be responsible for the cost of maintaining the solar photovoltaic installation and any access road(s), unless accepted as a public way.
- (2) Annual Report. The owner or operator of the installation shall submit an Annual Report which certifies compliance with the requirements of this bylaw and their approved site plan including control of vegetation, noise standards, and adequacy of road access. The Annual Report shall also provide information on the maintenance completed during the course of the year and the amount of electricity generated by the facility. The Annual Report shall be submitted to the Select Board, Planning Board, Fire Chief, Emergency Management Director, Building Inspector, Board of Health and Conservation Commission (if Wetlands Permit was issued) no later than 45 days after the end of the calendar year.
- (3) Modifications. All material modifications to a solar photovoltaic installation made after issuance of the required building permit shall require approval by the Site Plan Review Authority.

M. Abandonment or Decommissioning

- (1) Decommission / Removal Requirements. Any large- scale ground-mounted solar photovoltaic installation which has reached the end of its useful life or has been abandoned consistent with Section M (2) of this bylaw shall be removed. The owner or operator shall physically remove the installation no more than 150 days after the date of discontinued operations. The owner or operator shall notify the Site Plan Review Authority by certified mail of the proposed date of discontinued operations and plans for removal. Decommissioning shall consist of:
  - (a) Physical removal of all large- scale ground-mounted solar photovoltaic installations, structures, equipment, security barriers and transmission lines from the site.
  - (b) Disposal of all solid and hazardous waste in accordance with local, state, and federal waste disposal regulations.

(c) Stabilization or re-vegetation of the site as necessary to minimize erosion. The Site Plan Review Authority may allow the owner or operator to leave landscaping or designated below-grade foundations in order to minimize erosion and disruption to vegetation.

(2) Abandonment. Absent notice of a proposed date of decommissioning or written notice of extenuating circumstances, the solar photovoltaic installation shall be considered abandoned when it fails to operate for more than one year without the written consent of the Planning Board. If the owner or operator of the large-scale ground-mounted solar photovoltaic installation fails to remove the installation in accordance with the requirements of this section within 150 days of abandonment or the proposed date of decommissioning, the Town may enter the property and physically remove the installation to the extent authorized bylaw.

N. Financial Surety.

Proponents of large-scale ground-mounted solar photovoltaic projects shall provide a form of surety, either through escrow account, bond or otherwise, to cover the cost of removal in the event the Town shall remove the installation and remediate the landscape, in an amount and form determined to be reasonable by the Planning Board, but in no event to exceed more than 125% of the cost of removal and compliance with the additional requirements set forth herein, as determined by the project proponent. Such surety will not be required for municipally or state-owned facilities. The project proponent shall submit a fully inclusive estimate of the costs associated with removal, prepared by a qualified engineer. The amount shall include a mechanism for calculating increased removal costs due to inflation.

Presented by: Veronica Kell

Vote on main motion, Article 13, passed by 2/3, declared by Moderator.