

## **A. Purpose**

The purpose of this section is to facilitate the creation of new Large-Scale Ground-Mounted Solar Photovoltaic Installations (LGSPS) and Utility-Scale Industrial Ground-Mounted Solar Photovoltaic Installations (UGSPS) by providing standards for the placement, design, construction, operation, monitoring, modification and removal of such installations that address public health, welfare, safety, minimize impacts on environmental, scenic, natural and historic resources and to provide adequate financial assurance for the eventual decommissioning of such installations. This bylaw is intended to be consistent with Massachusetts General Law c.40A §3 in that it does not 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 public health, safety or welfare.

## **B. Definitions**

### **Large-Scale Ground-Mounted Solar Photovoltaic Installation (LGSP):**

A solar system that is structurally mounted on the ground and is not roof-mounted, and has a minimum nameplate capacity greater than 25 kW and less than one megawatt or occupies more than 1/8 acre of land.

### **On-Site Solar Installation:**

A solar installation that is constructed at a location where other uses of the underlying property occur.

### **Rated Nameplate Capacity:**

The maximum rated output of electric power production of the Electric system in Alternating Current (AC) or Direct Current (DC).

### **Site Plan Review:**

Review by the Planning Board to determine conformance with Section 9.5 of the zoning bylaw.

### **Solar Photovoltaic Array:**

An arrangement of solar photovoltaic panels.

### **Solar Photovoltaic System:**

A device, structure, or structural design feature, a substantial purpose of which is to provide for the collection, storage and distribution of solar energy for space heating or cooling, generation of electricity, or water heating. This includes appurtenant equipment for the collection, storage and distribution of electricity to buildings or to the electric grid.

### **Utility-Scale Industrial Ground-Mounted Solar Photovoltaic Installation (UGSP):**

A solar photovoltaic system that is structurally mounted on the ground and has a minimum nameplate capacity of one megawatt or more regardless of the amount of land occupied.

## **C.4. Applicability**

a. The provisions set forth in this section shall apply to the construction, operation, repair, and / or removal of LGSPS and UGSPS. Any installation qualifying as a LGSP or UGSP shall require Site Plan Review in accordance with Section 9.5 of the zoning bylaw. Any installation qualifying as a UGSP shall also require a Special Permit from the Zoning Board of Appeals in accordance with Section 9.4 of the zoning bylaw. This Section also applies to physical modifications that materially alter the type, configuration or size of these installations or related equipment. In the event of such modifications, a new Site Plan Review shall be required and in the case of a UGSP a new Special Permit shall also be required. Notwithstanding the provisions of this bylaw, any other system of technology utilizing solar energy to generate power shall be subject to the terms of this bylaw.

## **D. General**

### **1. Plans**

All plans, blueprints, drawings, and maps shall be prepared-as provided in Section 9.5.4. of the zoning bylaw.

### **2. Required Documents**

Applicant shall provide the following documents in addition to or in coordination with those

required by Section 9.5. of the zoning bylaw.

- a. A list of any hazardous materials proposed to be located on the site in excess of household quantities and a plan to prevent their release to the environment.
- b. Blueprints or drawings of the solar installation signed by a Professional Engineer licensed to practice in the Commonwealth of Massachusetts showing the proposed layout of the system and any potential shading from nearby structures.
- c. One or three line electrical diagram detailing the solar installation, associated components, and electrical interconnection methods, with all National Electrical Code compliant disconnects and overcurrent devices.
- d. Documentation of the major system components to be used, including the electric generating components, transmission systems, mounting system, inverter, etc.
- e. Name, address, and contact information for proposed system installer.
- f. Name, address, contact information and signature of the project applicant, as well as all co-applicants or property owners, if any.
- g. The name, address, contact information and signature of any agents representing the project applicant.
- h. Fire protection measures.
- i. Certified list of abutters.
- j. Documentation showing actual or prospective access and control of the project site sufficient to allow for construction and operation of the proposed ~~solar~~ installation.
- k. Operation and Maintenance Plan. Applicant shall submit a plan for the operation and maintenance of the LGSP and the UGSP, which shall include measures for maintaining safe access to the installation, stormwater management (consistent with DEP's Stormwater Regulations and the Town of Monterey's Stormwater Regulations) and vegetation controls, as well as general procedures for operational maintenance of the installation.
- l. Zoning. 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).

**3. Fee/Consultant.** Upon submission of an application for site plan approval under this Section, the applicant shall pay a review fee determined by the Planning Board consisting of reasonable costs to be incurred by the Planning Board for the employment of independent consultants. The independent consultants may be hired in accordance with G.L. c. 44, §53G. The consultant shall be: a). a qualified professional with a record of service to municipalities in with respect to LGSPs or UGSPs and, b). if determined necessary by the Planning Board, other relevant fields of experience. The Planning Board shall select the independent consultant(s) after consultation with the Select Board, the Zoning Board of Appeals, the Board of Health, and the Conservation Commission, each of which may propose a list of qualified candidates.

**4. Bond.** Applicant shall, as a condition of Site Plan Approval and the requirements set forth in this bylaw: Post an initial bond in a reasonable amount determined and approved by the Planning Board. This bond shall be in force to cover the costs of the remediation of any damage to the landscape which occurs during the clearing of the site; and to cover the cost of the removal of the facility from the site, and remediation of the landscape, should the facility cease to operate.

**E. Cessation of Use.** A LGSP or a UGSP that ceases to operate for a period of one year shall be removed by the owner at their cost and expense. Cease to operate is defined as not performing the normal functions associated with the LGSP or UGSP and its equipment on a continuous and ongoing basis for a period of one year. At the time of removal, the site shall be remediated such that all improvements that have ceased to operate are removed, and the main access road shall be re-vegetated. Existing trees shall only be removed with the written permission of the Planning Board, and only if the Planning Board determines such removal of trees to be necessary to complete the required removal of the LGSP or UGSP.

## **F. Utility Notification**

No LGSP or UGSP shall be constructed until evidence has been given to the Planning Board that the utility company that operates the electrical grid where the installation is to be located has been informed of the solar installation owner or operator's intent to install an interconnected customer-owned generator. Off-grid systems shall be exempt from this requirement.

## **G. Compliance**

### **1. Compliance with Laws, Ordinances and Regulations**

The construction and operation of all LGSPS and UGSPS shall be consistent with all applicable local, state and federal requirements, including but not limited to the Wetlands Protection Act, the Scenic Mountains Act, and all applicable safety, construction, electrical, and communications requirements. All buildings and fixtures forming part of a solar installation shall be constructed in accordance with the State Building Code.

### **2. Building Permit and Building Inspection**

No LGSP or UGSP shall be constructed, installed or modified as provided in this section without first obtaining a building permit.

## **H. Dimensional Requirements**

### **1. Setbacks**

Notwithstanding the provisions of Section 4.2.1. of the zoning bylaw, for LGSP front, side and rear setbacks shall be as follows.

- a. Front yard: The front yard depth shall be at least 75 feet.
- b. Side yard. Each side yard shall be a depth of at least 75 feet.
- c. Rear yard. The rear yard depth shall be at least 75 feet.

Notwithstanding the provisions of Section 4.2.1. of the zoning bylaw, for UGSP front, side and rear setbacks shall be as follows.

- a. Front yard: The front yard depth shall be at least 150 feet.
- b. Side yard. Each side yard shall be a depth of at least 150 feet.
- c. Rear yard. The rear yard depth shall be at least 150 feet.

### **2. Screening**

Every project shall be subject to reasonable requirements that it be visually screened from abutting properties through any one or combination of the following; location, distance, plantings, existing vegetation and fencing.

### **3. Height**

The maximum height of a LGSP or a UGSP is 15 feet.

### **4. Siting Criteria**

No LGSP or UGSP shall be located within any of the following prohibited areas and, if provided, not closer than the distance indicated. All distances are to be measured from the nearest property line on which the facility is located.

1. The habitat of any State-listed Rare or Endangered Wildlife or Rare Plant Species;
2. Within 500' horizontally from any Historic District or property listed or eligible to be listed on the state or federal Register of Historic Places; or
3. Within 500' horizontally from any known archaeological site.

## **I. Design and Performance Standards**

### **1. Lighting**

Lighting of LGSPS and UGSPS 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 shielded from abutting properties. Lighting of the LGSP and the

UGSP shall be directed downward and shall incorporate full cut-off fixtures to reduce light pollution.

## **2. Signage**

Signs on LGSPs and UGSPs shall comply with Section 6.2 of the Zoning Bylaws. A sign consistent with the Town's sign bylaw shall be required to identify the owner and provide a 24-hour emergency contact phone number.

## **3. Utility Connections**

Reasonable efforts shall be made to place all utility connections from the LGSP and UGSP underground (if feasible), depending on appropriate soil conditions, shape, and topography of the site and any requirements of the utility provider.

## **4. Roads**

Access roads shall be constructed to minimize grading, removal of stone walls or street trees and minimize impacts to environmental or historic resources.

## **5. Hazardous Materials**

Hazardous materials stored, used, or generated on site shall not exceed the amount for a Very Small Quantity Generator of Hazardous Waste as defined by the DEP pursuant to Mass DEP regulations 310 CMR 30.000 and shall meet all requirements of the DEP including storage of hazardous materials in a building with an impervious floor that is not adjacent to any floor drains to prevent discharge to the outdoor environment. If hazardous materials are utilized within the solar equipment then impervious containment areas capable of controlling any release to the environment and to prevent potential contamination of groundwater are required.

# **J. Safety and Environmental Standards**

## **1. Emergency Services**

The LGSP and UGSP owner or operator shall provide a copy of the project summary, and electrical schematic, to the local Fire Department, Building Commissioner, and Director of Operations. Upon request the owner or operator shall cooperate with local emergency services in developing an emergency response plan including the training of any municipal first responders. All means of shutting down the LGSP and UGSP shall be clearly marked. The owner or operator shall identify a responsible person for public inquiries throughout the life of the installation.

## **2. Land Clearing, Soil Erosion and Habitat Impacts**

Clearing of natural vegetation shall be limited to what is necessary for the construction, operation and maintenance of the LGSP and UGSP or otherwise prescribed by applicable laws, regulations, and bylaws.

# **K. Maintenance**

## **Solar Installation Conditions**

The LGSP and UGSP 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 Management Director. The owner or operator shall be responsible for the cost of maintaining the solar installation and any access road(s).

# **L. Annual Reporting**

The owner or operator of the installation shall submit an Annual Report demonstrating and certifying compliance with the Operation and Maintenance Plan and the requirements of the zoning 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 report shall be submitted to the Board of Selectmen, Planning Board, Fire Department, Director of Operations, Building Commissioner, Board of Health and Conservation Commission (if Wetlands Permit was issued) no later than 45 days after the end of the calendar year.

