

Annual Town Meeting  
April 2, 2016

**ARTICLE 27:**

To see if the Town will vote to amend the Zoning Bylaw, as on file with the Town Clerk, by adding a new section entitled, "Ground-Mounted Solar Energy Facilities", that identifies solar energy facility site locations, selection criteria and evaluation criteria as well as amending associated definitions, procedures, and schedules, or take any other action relative thereto.

ENERGY COMMITTEE

## AMENDED DRAFT

### 205-3 Definitions

**ACTIVELY OCCUPIED** – As applied to the site of a GMSPS, that portion of a Development Site that contains the solar array, accessory structures, interconnection infrastructure and internal vehicle access roads.

**DISTURBED AREA** – Land which, due to human activity or as a result of natural forces, including but not limited to fire or flooding, is devoid of significant naturally occurring vegetation, the topography of which has been significantly altered or destabilized by any means.

**GRID** – Power transmission system used to transfer electricity from generation facilities to commercial and residential electric loads.

**GROUND-MOUNTED** – A solar energy system installed directly on the ground through various ground-mounting technologies which may include fixed, passive tracking or active tracking metal racking.

**GROUND-MOUNTED SOLAR PHOTOVOLTAIC SYSTEM (GMSPS)** – A ground-mounted, solar energy system that is either:

1. Located on land in agricultural use as defined in G. L. c.128, § 1A and used primarily for the accessory generation of energy for the operation of the agricultural use, or;
2. Installed for the principal purpose of selling generated electricity to the grid.

### 205-77. Ground-Mounted Solar Photovoltaic Systems

A. **Intent.** The intent of this bylaw is to promote, by-right, subject to Site Plan Review, in all Districts, the generation of solar energy while preserving the natural environment and supporting reduction of Plymouth's carbon footprint.

#### B. **Location and Area Requirements.**

1. Site Plan Review is not required for a GMSPS that:
  - a. Actively occupies 1,500 square feet or less of land and has a total GMSPS height of less than 8 feet from final grade;
  - b. is located on agricultural land, and used primarily for the accessory generation of energy for the operation of the agricultural use; or
  - c. is located on a Development Site consisting primarily of Disturbed Area, and, if located within any of the following Districts, provided a minimum 200-foot Buffer is in place along each Lot line that abuts a Residential District:
    - I. Airport (AP)
    - II. Arterial Commercial (AC)
    - III. General Commercial (GC)
    - IV. Highway Commercial (HC)
    - V. Light Industrial (LI)

- VI. Light Industrial/Waterfront (LI/WF)
- VII. Mixed Commerce (MC)

2. Prohibited. A GMSPS that actively occupies more than forty (40) acres in area.

C. **Standards.** The following standards apply to all GMSPS:

1. **Setback** – A GMSPS site and construction thereon shall conform to the dimensional and intensity requirements set forth in Table 5 of the Zoning Bylaw.
2. **Design** –
  - a. **Lighting** – Lighting shall be limited to that required for safety and operational purposes, and shall comply with the requirements of §205-65 Prevention of Light Pollution.
  - b. **Utility Connections** – Cabling and utility connections within the GMSPS shall be placed underground.
  - c. **Security** – The GMSPS must be physically secured by measures including, but not limited to, appropriate fence material, construction, locking devices and surveillance equipment.
  - d. **Signage** –
    - i. Required: A sign complying with Sign bylaw §205-19 shall identify the owner and operator, if not the same, and provide the following information: business name for any company or other entity owning and/or operating the installation, with the business address and name of a contact person for each; electric utility or other safety warnings and a 24-hour emergency contact phone number.
    - ii. Prohibited: Any advertising display.
  - d. All emergency vehicle access ways shall conform to dimensional requirements of the Plymouth Fire Department.
  - e. Screening, as defined in §205-3, shall be installed to shield residences from a GMSPS.
  - f. Buffers as defined in §205-3 are required as follows:
    - i. A minimum of 50 feet for 1 to 2 MW systems;
    - ii. A minimum of 100 feet for systems greater than 2 MW.
3. **Land Clearing, Soil Erosion and Habitat Impacts.**
  - a. Clearing of native vegetation shall be limited to that necessary for the construction, operation and maintenance of the GMSPS. Effective storm water management and erosion control features shall be maintained at all times during and post-construction. Installed fencing shall maintain a minimum distance of 8 inches from final grade for small wildlife passage.
  - b. Management of all vegetated areas within the GMSPS shall be maintained throughout the life of the project through mechanical means and without the use of chemical herbicides.
4. **Information Required with Zoning Permit for all GMSPS.**
  - a. **Landscape Plan** – A landscape plan prepared by a Registered Landscape Architect

is required and shall include location of existing significant trees, shrubs and grasses to remain and all proposed additions, identified by specimen size and species at installation. Low growth vegetation shall be planted and maintained in areas under GMSPS rack equipment.

- b. **Materials** – Manufacturer’s specifications for a proposed GMSPS shall be provided for all equipment and attendant facilities and include documentation of the major system components to be used, including panels, mounting system, rated name plate capacity, colors, inverter and interconnection details.
- c. **Safety** – The GMSPS Owner or Operator shall submit a copy of the project summary, electrical schematic, and Development Site plan to the Building Commissioner, with a copy for review by the Fire Chief. Instructions to de-energize the system shall be made available to public safety personnel. The owner or operator shall identify a responsible person for public inquiries throughout the life of the GMSPS.
- e. **Financial Surety** – Except for a municipally owned GMSPS, for a project designed to generate in excess of 2MW, a performance guarantee is required to cover the cost of GMSPS removal in the event the town must remove the installation and stabilize the Development Site with loam and seed in an amount approved by the Building Commissioner.

#### 5. **Other Requirements.**

- a. **Modification** – A substantial modification to a GMSPS shown on an approved Site Plan shall require Site Plan modification in compliance with the standards and procedures applicable to the original application.
- b. **Segmentation** – Adjacent parcels in the same ownership or control shall be deemed to be one parcel for purpose of calculating the area limitation of §B.2 above.
- c. **Abandonment** – A GMSPS shall be deemed abandoned when it fails to operate or its operations are discontinued for more than one year without the written consent of the Building Commissioner; or if the Building Commissioner has determined that the installation is a hazard to public safety and the conditions have not been corrected within three (3) months.
- d. **Site Restoration** – A GMSPS must be removed by its owner at the end of its useful life or when its use has been discontinued or abandoned as provided herein, and shall be removed by the owner or operator within 150 days from the date of discontinuation of operations. The owner or operator shall notify the Building Commissioner by certified mail of the proposed date of discontinuation and provide detailed plans and schedule for GMSPS removal.