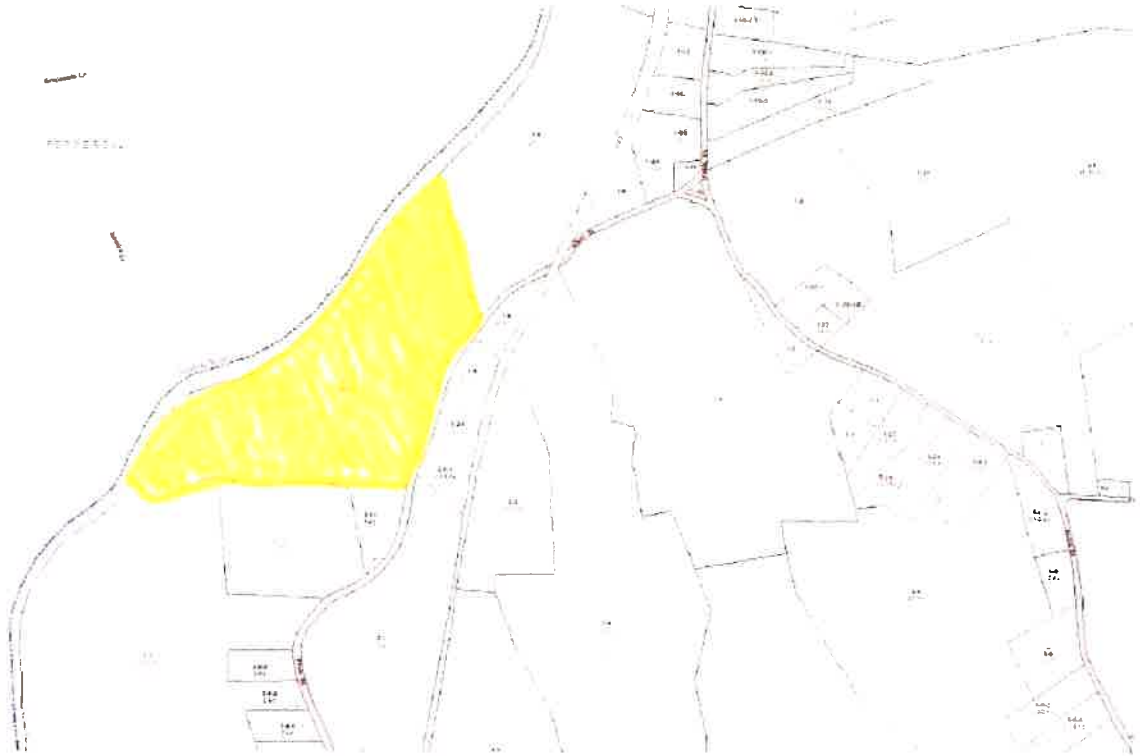


Special Town Meeting
October 15, 2019
Proposed Solar Energy Overlay District



*The highlighted area is proposed to be overlayed with the Solar Overlay District. The underlying zoning R-1 Single Family Residence District would remain in place.

Solar Energy Overlay District Bylaw

Purpose: The purpose of this District is to allow and regulate large scale ground mounted solar energy systems in areas of Town that the Town determines are compatible for this type of development through a special permit process.

Definitions

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; may be of any size (small-, medium- or large-scale).

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).

Uses Permitted

1.0 Uses Allowed via Special Permit

1.1 Large-Scale Ground-Mounted Solar Energy Systems

Setbacks

2.0 The setbacks of the underlying zoning district shall apply to any area where a Solar Overlay District has been approved.

Lot Coverage

3.0 Solar energy systems shall not be included in calculations for lot coverage or impervious cover when the surface under them is grass or another pervious cover.

Site Plan Review Requirements and Performance Standards

4.0 Site Plan Review

4.1 Applicability

2.1.1 Large-scale ground-mounted solar energy systems shall undergo Site Plan Review prior to construction, installation or modification as provided in this section.

4.2 Site Plan Document Requirements

Pursuant to the Site Plan Review process, the project proponent shall provide the following documents, as deemed applicable by the Site Plan Review Authority:

4.2.1 A site plan showing:

- (a) Property lines and physical features, including roads, for the project site
- (b) Proposed changes to the landscape of the site, grading, vegetation clearing and planting, exterior lighting, screening vegetation or structures;
- (c) 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;
- (d) One or three line electrical diagram detailing the solar photovoltaic installation, associated components, and electrical interconnection methods, with all Massachusetts Electric Code (527 CMR 12.00) compliant disconnects and overcurrent devices;
- (e) Documentation of the major system components to be used, including panels, mounting system, and inverter;

- (f) Name, address, and contact information for proposed system installer, as well as all co-proponents or property owners, if any
- (g) The name, contact information and signature of any agents representing the project proponent; and
- (h) Zoning district designation for the parcels of land comprising the project site

4.2.2 Documentation of actual or prospective access and control of the project site (see also Section 2.3.1.1);

4.2.3 An operation and maintenance plan (see also Section 1.3.1.2);

4.2.4 Proof of liability insurance; and

4.2.5 A public outreach plan including a project development timeline which indicates how the project proponent will meet the required Site Plan Review notification process

4.3 Site Plan Review Design and Operation Standards

4.3.1 Standards for large-scale ground-mounted solar energy systems

4.3.1.1 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 energy system.

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

4.3.1.3 Utility Notification - No grid-intertie photovoltaic system shall be installed until evidence has been given to the Site Plan Review Authority that the owner has submitted notification to the utility company of the customer's intent to install an interconnected customer-owned generator. Off-grid systems are exempt from this requirement.

4.3.1.4 Lighting - Lighting of large-scale ground-mounted solar energy systems 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. Where feasible, lighting of the solar energy system shall be directed downward and shall incorporate full cutoff fixtures to reduce light pollution.

4.3.1.5 Signage - Signs on large-scale ground-mounted solar energy systems shall comply with a municipality's sign bylaw/ordinance. A sign consistent with a municipality's sign bylaw/ordinance shall be required to identify the owner and provide a 24-hour emergency contact phone number. Solar energy systems shall not be used for displaying any advertising except for reasonable identification of the manufacturer or operator of the solar energy system.

4.3.1.6 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.

4.3.1.7 Emergency Services – The large-scale ground-mounted solar energy system 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 energy system shall be clearly marked. The owner or operator shall identify a responsible person for public inquiries throughout the life of the installation.

4.3.1.8 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 solar energy system or otherwise prescribed by applicable laws, regulations, and bylaws/ordinances.

4.3.1.9 Fencing shall be installed around the perimeter of the large solar energy system. The purpose of the fencing shall be to deter trespassers and vandalism. The fencing should be installed at such a height as to allow the travel of small wild life through the site. The fencing material shall be approved by the Planning Board.

Monitoring and Maintenance

4.3.2

4.3.2.1 Solar Energy System Installation Conditions - The large-scale ground-mounted solar energy system 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, Emergency Management Director, and Emergency Medical Services. The owner or operator shall be responsible for the cost of maintaining the solar energy system and any access road(s), unless accepted as a public way.

4.3.2.2 Modifications - All material modifications to a large-scale groundmounted solar energy system made after issuance of the required building permit shall require approval by the Site Plan Review Authority.

4.3.3 Abandonment or Decommissioning

4.3.3.1 Removal Requirements

Any large-scale ground-mounted solar energy system which has reached the end of its useful life or has been abandoned consistent with Section 1.3.3.2 of this bylaw/ordinance 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 solar energy systems, 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 Authority may allow the owner or operator to leave landscaping or designated below-grade foundations in order to minimize erosion and disruption to vegetation.

4.3.3.2 Abandonment

Absent notice of a proposed date of decommissioning or written notice of extenuating circumstances, the large-scale groundmounted solar energy system shall be considered abandoned when it fails to operate for more than one year without the written consent of the Site Plan Review Authority. If the owner or operator of the solar energy system 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 retains the right, after the receipt of an appropriate court order, to enter and remove an abandoned, hazardous, or decommissioned large-scale ground-mounted solar energy system. As a condition of Site Plan approval, the applicant and landowner shall agree to allow entry to remove an abandoned or decommissioned installation.

4.3.3.3 Removal Bond

The applicant shall provide the Town with a bond sufficient to decommission and remove the system at the end of its useful life or in the event that the system is abandoned.