

3600. Solar Bylaw Allowing By-Right Siting of Large-Scale Ground-Mounted Solar Photovoltaic Installations (Revised March 24, 2016)

3610. Purpose

The purpose of Section 3600 of the Zoning Bylaws of the Town of Bernardston is to allow by-right 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. These standards are designed to address public safety, minimize impacts on scenic, natural and historic resources and provide adequate financial assurance for the potential eventual removal of such installations.

The provisions set forth in this section of the Zoning Bylaws of the Town of Bernardston shall apply to the construction, operation, removal, alteration and/or repair of large-scale ground-mounted solar photovoltaic installations which are allowed without a Special Permit. Specifications for installations not met within the parameters of Section 3600 are not allowed by-right.

3620. Intent

To promote the responsible use of solar energy production and collection in the town of Bernardston while protecting the safety, health and welfare of the public.

3630. Applicability

Section 3600 of the Bernardston Zoning Bylaw applies to large-scale ground-mounted solar photovoltaic installations proposed to be constructed after the approval date of this bylaw by Town Meeting, and also applies to any physical modifications of such installations that materially alter the type, configuration, or size of these installations or related equipment, structures and buildings. A large-scale ground-mounted solar photovoltaic installation, for the purpose(s) of the bylaw is a solar photovoltaic system that is structurally mounted on the ground (not roof-mounted), as well as any accessory structures and buildings.

A large-scale ground-mounted solar photovoltaic installation shall occupy a minimum size of one (1) acre and a maximum size of five (5) acres. Any other proposed ground-mounted solar photovoltaic installations are subject to the Special Permit process.

3640. Site Plan Review

Ground-mounted large-scale solar photovoltaic installations shall undergo Site Plan Review by the Planning Board prior to construction, installation or modification as provided in Section 3600. Site Plan Review is the review by the Bernardston Planning Board of a proposed project to ensure that it is in conformity with the Bernardston Zoning Bylaws, and the authority to grant if in conformity, deny the Site Plan Review if the site plans do not conform with the Bernardston Zoning bylaws, or to grant Site Plan Review with conditions so that the final site plans conform with the Bernardston Zoning bylaws.

3641. General

- A. All plans and maps shall be prepared, stamped and signed by a Professional Engineer licensed to practice in Massachusetts.
- B. No large-scale ground-mounted solar photovoltaic installation may be proposed where it may be visible from any local, State, or Federally designated historic district or scenic byway in the Town of Bernardston, with the exception that if mature vegetative screening, which will completely shield visibility from such historic district or scenic byway, is planted prior to any construction, such construction may be allowed at the discretion of the Bernardston Site Plan Review Authority.
- C. Large-scale ground-mounted solar photovoltaic installations are prohibited on hilltops and ridge lines, as well as any hillsides where they will be visible from any public ways or neighboring properties, or could be considered to alter the scenic beauty of the hillside.
- D. Solar arrays shall be constructed on slopes of less than 15% grade

3642. Required Documents

The project applicant shall provide the following documents to the Bernardston Site Plan Review Authority:

A. Site plan clearly demonstrating:

1. Property lines and physical features, including roads, lot area, setbacks, open space, parking and structure coverage for the project site;
2. All proposed changes to the landscape of the site, grading, vegetation clearing and planting, exterior lighting, structures or vegetative screening;
3. Plans of the solar photovoltaic installation and accessory structures signed by a Professional Engineer licensed to practice in the Commonwealth of Massachusetts showing the proposed layout of the system, lighting, signage, utility connections, transformers and any potential shading from nearby structures or natural features and vegetation;
4. Electrical diagram detailing the solar photovoltaic installation, associated components, and electrical interconnection methods, with all National Electrical Code compliant components, disconnects, and over current devices;
5. Documentation by means of manufacturers' specifications of the major system components to be used, including, but not limited to, the photovoltaic panels, mounting system(s), and inverter(s);
6. Name, address, license verification and contact information for proposed system installer(s);
7. Name, address, phone number and signature of the project applicant and co-applicant (s), if any;

8. The name, contact information and signature of any agents representing the project applicant(s)

B. Documentation as outlined under Section 3650(A) Site Control

C. An operation and maintenance plan as outlined under Section 3650(B) Operation & Maintenance Plan.

D. 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);

E. Proof of liability insurance and description of acceptable financial surety as specified under Section 3692: Financial Security. The Bernardston Site Plan Review Authority may waive documentary requirements as it deems appropriate, by unanimous vote.

F. Plans must comply with all other requirements of the Site Plan Review provisions of this bylaw not provided for herein.

3650. General Requirements for all Large-Scale Solar Photovoltaic Installations

The following requirements shall apply to all large scale solar photovoltaic installations:

A. Site Control: The project applicant 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, as well as accessibility by Public Safety Officials and their vehicles, should it be necessary.

B. Operation & Maintenance Plan: The project applicant 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, and general procedures for maintenance of the installation.

C. Compliance with Laws, Ordinances and Regulations: The construction and operation of all large-scale ground-mounted solar photovoltaic installations shall be consistent with all applicable local, state and federal requirements, including but not limited to, all applicable safety, construction, electrical, environmental and communications requirements. All photovoltaic installations shall be consistent and meet the requirements of all local, state and federal bylaws, laws, and regulations including but not limited to the Bernardston Zoning Bylaw; all applicable safety, construction, electrical, environmental and communications requirements. All buildings and structures (including solar arrays) forming part of a solar photovoltaic installation shall be constructed in accordance with the State Building Code, as well as the Bernardston Zoning Bylaw.

D. Building Permit and Building Inspection: No large-scale ground-mounted solar photovoltaic installation shall be constructed, installed, modified or removed without first obtaining a building permit.

E. Fees: Building permits issued for the construction, alteration, enlargement or demolition of large-scale ground-mounted solar photovoltaic installations shall be subject

to permit fees, as well as Site Plan Review application fees, and consultation fees, as established by the Town of Bernardston. No building permit shall be deemed valid until such fees are paid. Any additional expenses, in addition to the SPR fee and the Building Permit fee, shall be borne by the applicant.

F. Utility Notification: No large-scale ground-mounted solar photovoltaic installation shall be constructed until evidence has been given to the Building Inspector that the utility company operating 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, and has approved said operation. Off-grid systems shall be exempt from this requirement.

G. These projects must comply with Sections 3400 (Environmental Controls) and 4700 (Renewable Energy Facilities) of the zoning bylaws as well as Massachusetts Storm water regulations.

3651. Dimensional and Density Requirements

For all large-scale ground-mounted solar photovoltaic installations, front, side and rear setbacks shall be as follows:

A. Front, side, and rear setbacks shall all be at least 50 feet.

B. Access roads shall be set back at least 20 feet from front, side, and rear lot lines.

C. All large-scale ground-mounted solar photovoltaic installations shall be constructed on parcels meeting the minimum dimensional zoning requirements for the zone in which it is proposed as specified in Appendix A: Table of Dimensional Requirements in the Bernardston Zoning Bylaw.

3652. Segmentation

In determining whether a project complies with the lot size restriction in Section 3650(A) Site Control, the developer and the Site Plan Review Authority shall consider the entirety of the development, including:

A. Any likely future expansion of the project on the subject property or on any property which is contiguous to the subject property or under related ownership;

B. Any past, related development on any property, which is contiguous to the subject property, or any property that is under related ownership with the subject property at the time that this bylaw was adopted. A developer shall not phase or segment a project or transfer ownership of contiguous properties to evade, defer, or curtail the requirements set forth in this bylaw.

3653. Accessory Structures

All accessory structures to large-scale ground-mounted solar photovoltaic installations shall comply with the Town of Bernardston Zoning Bylaw and all requirements of **Section 3600**, and the Massachusetts State Building Code. All components and accessory

structures shall be screened from view from public ways and neighboring properties by vegetative screening with varieties indigenous to Bernardston, and approved by the Planning Board during the site plan review process. Said vegetative screening shall reach a mature form to effectively screen the installation within five years of installation. Planting of the vegetative screening shall be completed prior to final approval of the photovoltaic installation by the Building Inspector.

3654. Size

A large-scale ground-mounted solar photovoltaic installation shall occupy a minimum size of one (1) acre and a maximum size of five (5) acres. No large-scale ground-mounted solar photovoltaic installation, as defined in this section, shall occupy more than five acres, in aggregate of all arrays, structures and buildings. All large-scale ground-mounted solar photovoltaic installations larger than five acres, including all accessory components, buildings, and structures, shall require a Special Permit, if such use is permitted within the Bernardston Zoning Bylaws. Refer to Section 2340 Dimensional Schedule.

3660. Design Standards

3661. Lighting

Lighting of large-scale photovoltaic installations and accessory structures and buildings shall be limited to that required for safety and operational purposes, and shall be shielded from abutting properties with appropriate fencing or vegetative screening, or as specified by the Bernardston Site Plan Review Authority. Where feasible, lighting of the solar photovoltaic installation shall be directed downward and shall incorporate full cut-off fixtures to reduce light pollution.

3662. Signage

Signs on large-scale ground-mounted solar photovoltaic installations shall comply with the Town of Bernardston Zoning Bylaw Section 3300. A sign 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 (as defined by the Bernardston Site Plan Review Authority or the Planning Board) including identification of the manufacturer, owner and/or operator of the solar photovoltaic installation.

3663. Utility Connections

Reasonable efforts, as determined by the Bernardston Site Plan Review Authority during the Site Plan Review process, 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. Connection components may be located above ground if required by the utility provider.

3664. Screening & Landscaping

The solar installation shall be screened from view from public ways and neighboring properties, as specified under Section 3667: Landscape Maintenance, in order to protect the rural character of the town.

3665. Height

No component of a solar installation shall exceed 15' from the grade of each base to its highest point without prior approval of the Planning Board.

3666. 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 large-scale ground-mounted solar photovoltaic installation or otherwise prescribed by applicable laws, regulations, and bylaws. Solar photovoltaic systems shall be installed on water permeable surfaces, or as approved by the Site Plan Review Committee during the site plan review.

3667. Landscape Maintenance

When possible, a diversity of plant species shall be used, with all species native to New England. Use of exotic plants, as identified by the most recent copy of the "Massachusetts Prohibited Plant List" maintained by the Massachusetts Department of Agricultural Resources, is prohibited. Vegetative screening shall be of a height upon maturity to shield visibility of all components from view off-site. Use of herbicides are prohibited.

3670. 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 Bernardston Fire Chief and Bernardston Police 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. Twenty-four hour access to the site shall be provided to the fire department and police department by means approved by the chief of police and fire chief.

3680. Monitoring and Maintenance

Solar Photovoltaic Installation Conditions

The large-scale ground-mounted solar photovoltaic installation owner shall be responsible for maintenance of the facility. Maintenance shall include, but not be limited to, painting, structural repairs, and integrity of security measures. The owner shall be responsible for the cost of maintaining the solar photovoltaic installation and any access road(s), unless accepted at Bernardston Town Meeting as a public way. Landscaping, replanting and re-seeding, if necessary, shall be included as part of the maintenance for stormwater management and vegetative control.

3681. Modifications

All substantial modifications to a large-scale solar-photovoltaic installation made after final inspection by the Building Inspector shall require approval by the Planning Board prior to the issuance of a building permit for said modifications.

3690. Abandonment or Decommissioning

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 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 Building Inspector or his designee may enter the property and physically remove the installation.

3691. Removal Requirements

The owner shall notify the Planning Board by Certified Mail of the proposed date of discontinued operations and plans for removal. Decommissioning shall consist of:

A. 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 Planning Board may allow the owner or operator to leave landscaping or designated below-grade foundations in order to minimize erosion and disruption to vegetation.

3692. Financial Surety

Applicants of large-scale ground-mounted solar photovoltaic installations shall provide a form of surety, either through escrow account, bond or otherwise, to cover the cost of removal in the event the town must remove the installation and remediate the landscape. A plan shall be submitted, as part of the application for a large-scale ground-mounted solar photovoltaic installation to return the site to a pre-existing condition, as determined reasonable by the Site Plan Review Authority, with the form of surety to be held by the Town in the amount of 125% of the applicant-provided estimate (RS Means or equivalent) for such work. The amount shall include a mechanism for calculating increased removal costs due to inflation. The surety shall be submitted to the Planning Board prior to the issuance of the Building Permit, as well as prior to any disturbance, including tree cutting, at the site.

3695. Severability Provision

If any part of this bylaw is found not to be legal the rest will remain intact.

A True Copy:

Attest: June 1, 2016

