

## **6.6 LARGE-SCALE GROUND-MOUNTED SOLAR PHOTOVOLTAIC INSTALLATIONS**

**6.6.1 Purpose.** The purpose of this bylaw is to promote the creation of new large-scale ground-mounted solar photovoltaic installations (LSGMSPI) 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.

**6.6.2 Applicability.** The provisions set forth in this section shall apply to the construction, operation, and/or repair of LSGMSPI. This section applies to LSGMSPI proposed to be constructed after the effective date of this section. This section also pertains to physical modifications that alter the type, configuration, or size of these installations or related equipment.

**6.6.3 Definitions.** The following definitions shall apply:

***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 may be subject to site plan review to determine conformance with local zoning ordinances or bylaws. Projects cannot be prohibited, but can be reasonably regulated by the Becket Building Inspector and the Site Plan Approval Board.

***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.

***Customer-Owned Generator:*** An LSGMSPI owned by an entity other than the electric utility company.

***Large-Scale Ground-Mounted Solar Photovoltaic Installation (LSGMSPI):*** A solar photovoltaic system that is structurally mounted on the ground and is not roof-mounted, and has a minimum nameplate capacity of 250 kW DC.

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

***Site Plan Review:*** Review by the Site Plan Approval Board to determine conformance with local zoning bylaws. See Becket Zoning Bylaws §9.4 for details.

***Solar Photovoltaic Array:*** An arrangement of solar photovoltaic panels.

**6.6.4 General Requirements for all Large Scale Solar Power Generation Installations.** The following requirements are common to all LSGMSPIs to be sited on any parcel in Becket with a lot size of four (4) acres or more. Any such parcel may be used as a site for an LSGMSPI, as

long as all Site Plan Review criteria have been met to the satisfaction of the Site Plan Approval Board.

1. Compliance with Laws, Ordinances and Regulations. The construction and operation of all LSGMSPI shall be consistent with all applicable local, state and federal requirements, including the Wetlands Protection Act , M.G.L. c. 141, §40 et seq., and any other regulations or laws under the purview of the Becket Conservation Commission, and including but not limited to all applicable safety, construction, electrical, and communications requirements. All buildings and fixtures forming part of an LSGMSPI shall be constructed in accordance with the State Building Code. All necessary permits from the Conservation Commission shall be obtained by the applicant prior to Site Plan Review.
2. Building Permit and Building Inspection. No LSGMSPI shall be constructed, installed or modified as provided in this section without first obtaining a building permit.
3. Fees. The application for a building permit for an LSGMSPI must be accompanied by the fee required for a building permit and the required Site Plan Approval review fee.

**6.6.5 Site Plan Review.** LSGMSPIs with 250 kW or larger of rated nameplate capacity shall undergo site plan review by the Site Plan Approval Board prior to construction, installation or modification as provided in this section. Failure by the Site Plan Approval Board to render a decision on the submitted plan in accordance with Section 9.4.6 of the Becket Zoning By-Laws within 365 days of Completeness Notification (as set forth below) shall be deemed to be a constructive approval of those plans. An applicant claiming constructive approval of a LSGMSPI shall follow the process set forth in M.G.L. c. 40A, §9 to obtain a certificate of such approval from the Town Clerk.

1. General. All plans and maps shall be prepared, stamped and signed by a Professional Engineer licensed to practice in Massachusetts.
2. Required Documents. Pursuant to the site plan review process, the project proponent shall provide the following documents in addition to those required under §9.4 of the Zoning By-Law
  - a. A site plan showing:
    - i. Property lines and physical features, including roads, for the project site;
    - ii. The proposed site for the installation shown on a map of the Town of Becket.
    - iii. Proposed changes to the landscape of the site, grading, vegetation clearing and planting, exterior lighting, screening vegetation or structures;

- iv. Blueprints or drawings of the LSGMSPI 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 or vegetation;
  - v. One or three line electrical diagram detailing the LSGMSPI, associated components, and electrical interconnection methods, with all National Electrical Code compliant disconnects and overcurrent devices;
  - vi. Documentation of the major system components to be used, including the PV panels, mounting system, and inverter;
  - vii. Name, address, and contact information for proposed system installer;
  - viii. Name, address, phone number and signature of the project proponent, as well as all co-proponents or property owners, if any;
  - ix. The name, contact information and signature of any agents representing the project proponent; and
- b. Documentation of actual or prospective access and control of the project site (see also Section 6.6.6);
  - c. An operation and maintenance plan (see also Section 6.6.7);
  - d. Description of financial surety that satisfies Section 6.6.14; and
  - e. Proof of liability insurance that satisfies Section 6.6.15.
3. Application Submission. The application packet must contain all the appropriate application fees, application forms, and the appropriate number of copies of all plans and supporting documentation as set forth in §9.4.3 of the Zoning By-Laws. The application packet shall be submitted to the Town Clerk. The Town Clerk shall stamp the application with the date received and shall immediately notify the Chair of the Site Plan Approval Board of a submitted application packet.
  4. Completeness Review. The Site Plan Approval Board shall, within thirty (30) calendar days of the receipt of the application by the Town Clerk, determine whether the application is complete or incomplete (“Completeness Review”) and notify the applicant in writing by certified mail.
    - a. Incomplete Applications. If the Site Plan Approval Board determines the application to be incomplete, the Board will provide the applicant with a written explanation as to why the application is incomplete and request the information necessary to complete the application. Any additional

information submitted by the applicant starts a new thirty (30) calendar day Completeness Review.

- b. Complete Applications. When the Site Plan Approval Board determines the application to be complete, the Board will notify the applicant in writing (“Completeness Notification”) and transmit copies of the completed application to the appropriate local boards, commissions and departments for their independent review.

**6.6.6 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.

**6.6.7 Operation & Maintenance Plan.** The project proponent shall submit a plan for the operation and maintenance of the LSGMSPI, 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.

**6.6.8 Utility Notification.** No LSGMSPI shall be constructed until evidence has been given to the Site Plan Approval Board that the utility company that operates the electrical grid where the installation is to be located has been informed of the LSGMSPI’s owner or operator’s intent to install an interconnected Customer-Owned Generator; as well as documentation from said utility that they can and will connect the proposed Customer-Owned Generator into their power grid. Off-grid systems shall be exempt from this requirement.

**6.6.9 Dimension and Density Requirements.** The following dimensional and density requirements shall apply to all LSGMSPIs.

1. Setbacks. For LSGMSPIs, front, side and rear setbacks shall be as follows:
  - a. Front yard: The front yard depth shall be at least 50 feet;
  - b. Side yard. Each side yard shall have a depth at least 50 feet;
  - c. Rear yard. The rear yard depth shall be at least 50 feet.
2. Appurtenant Structures. All appurtenant structures to LSGMSPIs shall be subject to reasonable regulations concerning the dimensions and height of structures. 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, such structures should comply with the setback requirements in §6.6.9 (1), be screened from view and/or joined or clustered to avoid adverse visual impacts.

**6.6.10 Design Standards.** The following design standards shall apply to all LSGMSPIs.

1. Lighting. Lighting of LSGMSPIs 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 photovoltaic installation shall be directed downward and shall incorporate full cut-off fixtures to reduce light pollution.

2. Signage. Signs on large- scale ground-mounted solar photovoltaic installations shall comply with §5 of the Becket Zoning By-Laws. A sign shall be required to identify the owner and operator of the LSGMSPI 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.
3. Utility Connections. Reasonable efforts, as determined by the Site Plan Approval Board, 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. Fencing and Screening. All fencing and screening shall be in compliance with §4.3.2 (2) of the Becket Zoning By-Laws.

**6.6.11 Safety and Environmental Standards.** The following safety and environmental standards shall apply to all LSGMSPIs.

1. Emergency Services. The LSGMSPI's 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.
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 LSGMSPI or otherwise prescribed by applicable laws, regulations, and bylaws.

**6.6.12 Monitoring and Maintenance.**

1. Solar Photovoltaic Installation Conditions. The LSGMSPI's owner or operator shall maintain the facility and access road 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.
2. Modifications. All modifications to an LSGMSPI made after issuance of the required building permit shall require approval by the Site Plan Approval Board.

**6.6.13 Abandonment or Decommissioning.**

1. **Removal Requirements.** Any LSGMSPI which has reached the end of its useful life or has been abandoned consistent with Section 3.12.2 of this bylaw shall be removed by the owner or operator no more than 150 days after the date of discontinued operations. The owner or operator shall notify the Site Plan Approval Board by certified mail of the proposed date of discontinued operations and plans for removal. Decommissioning shall consist of:
  - a. Physical removal of all LSGMSPIs, 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 and re-vegetation of the site as necessary to minimize erosion. The Site Plan Approval Board 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 LSGMSPI shall be considered abandoned when it fails to operate for more than one year without the written consent of the Site Plan Approval Board. If the owner or operator of the LSGMSPI 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.

**6.6.14 Financial Surety.** Proponents of LSGMSPI 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 must remove the installation and remediate the landscape, in an amount and form determined to be reasonable by the Site Plan Approval Board, but in no event to exceed more than 125 percent 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.

**6.6.15 Liability Insurance.** The owner or operator of an LSGMSPI shall provide the Town Clerk with a certificate of insurance showing that the property has a minimum of one million dollars in liability coverage, and that the Town of Becket is an additional named insured thereon. Such a certificate shall be supplied on an annual basis upon the renewal of said insurance policy.