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the Zoning Board of Appeals, provided that the rebuilding or restoration is completed within three years after occurrence of the damage, and that the dwelling as rebuilt shall not exceed the original footprint and projections, nor shall it be greater in volume or floor space than the original structure.

Chapter XIV, Zoning, Section VI, Special Requirements, 6.5.6.4 added at Annual Town Meeting, June 10, 2005. Approved by Attorney General Thomas F. Reilly, October 7, 2005.

Chapter XIV, Zoning, Section VI, Special Regulations, 6.5.6.4 Exception, added at Annual Town Meeting, June 20, 2005. Approved by Attorney General Thomas F. Reilly, October 7, 2005.

6.6 Large Scale Ground-mounted Solar Photovoltaic Installations

Purpose: To regulate 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 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. The provisions set forth in this section shall apply to the construction, operation, and/or repair of Large Scale Ground-mounted Solar Photovoltaic Installations.

6.6.1 Applicability

This section applies to Large Scale Ground-mounted Solar Photovoltaic Installations proposed to be constructed after the effective date of this section. This section also pertains to subsequent physical modifications that materially alter the type, configuration or size of the installation or related equipment.

Approximate size of installation: With current technology, a solar photovoltaic array with a rated name plate capacity of approximately 100 kW (DC) occupies approximately one-half acre of land.

Small Scale Solar Photovoltaic Installation (under 100 kW): The provisions of this Section are not intended to discourage construction of solar photo voltaic installations that are smaller than 100 kW.

6.6.2 Definitions

As-of-Right Siting: As-of-Right Siting shall mean that development of a single, Small Scale Solar Photovoltaic Installation (under 100 kW) on an individual site may proceed under Massachusetts General Laws Chapter 40A, Section 3 without the need for a special permit, variance, amendment, waiver, or other discretionary approval. As-of-right development shall be subject to site plan review to determine conformance with applicable bylaws. Projects can be reasonably regulated by the Building Official.

Building Official: The state-certified Oakham inspector of buildings, building commissioner, or local inspector, charged with the enforcement of the Oakham Zoning Bylaw.

Building Permit: A construction permit issued by an authorized building official; 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 Ground-mounted Solar Photovoltaic Installations.

Large Scale Ground-Mounted Solar Photovoltaic Installation: A solar photovoltaic system that is structurally mounted on the ground and is not roof-mounted, and has a nameplate capacity of 100 kW DC or larger.

On-Site Solar Photovoltaic Installation: A solar photovoltaic 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 Photovoltaic system in Direct Current (DC).

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to voltaic system in Direct Current (DC).

Site Plan Review: Review by the Site Plan Review Authority to determine conformance with local zoning ordinances or bylaws.

Site Plan Review Authority: For purposes of this bylaw, Site Plan Review Authority refers to Planning Board as Special Permit Granting Authority (SPGA).

Small Scale Solar Photovoltaic Installation: A solar photovoltaic system that has a maximum nameplate capacity under 100 kW DC.

Zoning Enforcement Authority: The Town of Oakham Building Official.

6.6.3 General Requirements for all Large Scale Ground-mounted Solar Photovoltaic Installations

6.6.3.1 **Special Permit:** All Large Scale Ground-mounted Solar Photovoltaic Installations require a special permit from the Planning Board.

- A. **Public Hearing:** The Planning Board shall hold a Public Hearing relative to the Special Permit application, in accordance with provisions of Sections 9 and 11 of Chapter 40A of Massachusetts General Laws and the Town of Oakham Zoning Bylaws.
- B. **Review by Consultants:** The Planning Board may hire at the applicant's expense such qualified professionals as the Planning Board deems necessary for the review of an application for Large Scale Ground-mounted Solar Photovoltaic Installations and their accessory structures.
- C. **Costs:** The applicant shall submit a Filing Fee and a Project Review Deposit in accordance with the Regulations Governing Application Fees and Project Review Deposits.
 1. A Filing Fee shall be assessed to offset the expense of review by the Planning Board. Filing Fees are not refundable.
 2. A Project Review Deposit shall be submitted with the application, for deposit in an account established pursuant to MGL Chapter 44, Section 53G ("53G Account"). Any application filed without a Project Review Deposit required by the schedule below shall be deemed incomplete, and no review work shall commence until the fee has been paid in full. Outside consultants retained by the Planning Board to assist in the review of an application shall be paid from this account. Excess deposits in the 53G account, including accrued interest, shall be returned to the applicant, or the applicant's successor in interest, at the conclusion of the review process.

6.6.3.2 **Filing Requirements:** Applications for Special Permits made under this Section shall comply with 6.6.3.5.B, Required Documents.

6.6.3.3 **Compliance with Laws, Bylaws 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, and communications requirements. All buildings and fixtures forming part of a solar photovoltaic installation shall be constructed in accordance with the State Building Code.

6.6.3.4 **Building Permit and Building Inspection:** No Large Scale Ground-mounted Solar Photovoltaic Installation shall be constructed, installed or modified as provided in this section without first obtaining a building permit. (Note: Under the state building code, work must commence within six months from the date a building permit is issued; however, a project proponent may request an extension of the permit and more than one extension may be granted.)

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- A. **Fees:** The application for a building permit for a Large Scale Ground-mounted Solar Photovoltaic Installation must be accompanied by the fee required for a building permit.

6.6.3.5 **Site Plan Review:** Large Scale Ground-mounted Solar Photovoltaic Installations with 100 kW or larger of rated nameplate capacity shall undergo site plan review by the Site Plan Review Authority prior to construction, installation or modification as provided in this section.

Purpose: The purpose of the site plan review is to determine that the use complies with all requirements set forth in this zoning bylaw and that the site design conforms to established standards regarding landscaping, access, and other zoning provisions.

The Site Plan Review Authority may waive documentary requirements as it deems appropriate.

The extensive site plan review documentation set forth herein is not intended to apply to small scale solar photovoltaic Installations as defined above.

- A. **General:** All plans and maps shall be prepared, stamped and signed by a Professional Engineer licensed to practice in Massachusetts.
- B. **Required Documents:** Pursuant to the site plan review process, the project proponent shall provide the following documents:
1. A site plan prepared by a registered professional engineer, at a scale of one inch equals forty feet, indicating the following:
 - a. Property lines and physical features, including Town roads, for the project site.
 - b. Proposed changes to the natural landscape of the site, grading, vegetation clearing and planting, exterior lighting, screening vegetation or structures.
 2. Blueprints or drawings of the solar photovoltaic 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.
 3. A one-line or three-line electrical diagram detailing the solar photovoltaic installation, associated components, and electrical interconnection methods, with all National Electrical Code compliant disconnects and overcurrent devices.
 4. Documentation of the major system components to be used, including the PV panels, mounting system, and inverter.
 5. Name, address, and contact information for proposed system installer.
 6. Name, address, phone number and signature of the project proponent, as well as all co-proponents or property owners, if any.
 7. The name, contact information and signature of any agents representing the project proponent.
 8. Documentation of actual or prospective access and control of the project site, that satisfies Section 6.6.3..5.
 9. An operation and maintenance plan that satisfies Section 6.6.3.7.
 10. Proof of liability insurance.
 11. Description of financial surety that satisfies Section 6.6.8.
 12. A public outreach plan, including a project development timeline, which indicates how

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the project proponent will meet the required site plan review notification procedures and otherwise inform abutters and the community.

6.6.3.6 **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.

6.6.3.7 **Operation & Maintenance Plan:** The project proponent 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, as well as general procedures for operational maintenance of the installation.

6.6.3.8 **Utility Notification:** No Large Scale Ground-mounted Solar Photovoltaic Installation shall be constructed until evidence has been given to the Site Plan Review Authority that the utility company that operates the electrical grid where the installation is to be located has been informed of the Large Scale Ground-mounted Solar Photovoltaic Installation owner or operator's intent to install an interconnected customer-owned generator. Small scale, off-grid systems shall be exempt from this requirement.

6.6.3.9 Dimensional Requirements

A. Setbacks: For Large Scale Ground-mounted Solar Photovoltaic Installations, front, side and rear setbacks shall be as follows:

1. Front yard: The front yard depth shall be at least 100 feet; provided, however, that where the front yard faces and/or abuts one or more residences, the front yard depth shall not be less than 200 feet.
2. Side yard: Each side yard depth shall be at least 100 feet; provided, however, that where the side yard faces and/or abuts one or more residences, the side yard depth shall not be less than 200 feet.
3. Rear yard: The rear yard depth shall be at least 100 feet; provided, however, that where the rear yard faces and/or abuts one or more residences, the rear yard depth shall not be less than 200 feet.

6.6.3.10 **Appurtenant Structures:** All appurtenant structures to Large Scale Ground-mounted Solar Photovoltaic Installations shall be subject to regulations in accordance with criteria set forth in Section 7.4 Special Permits, including but not limited to the bulk and height of structures, lot area, setbacks, open space, parking and building coverage requirements. All such appurtenant structures, including but not limited to, equipment shelters, storage facilities, transformers, and substations, shall be architecturally compatible with each other. Structures shall be screened from view by vegetation and/or joined or clustered to avoid adverse visual impacts.

6.6.3.11 **Screening:** Where the front, side and/or rear yard faces and/or abuts one or more residences, the setback shall be screened with evergreen vegetation of a species not susceptible to deer predation. Plant materials shall be placed with sufficient spacing and density to minimize view of the solar installation. Alternatively, opaque fencing no less than six feet in height may be installed.

6.6.4 Design Standards

6.6.4.1 **Lighting:** Lighting of Large Scale Ground-mounted Solar Photovoltaic Installations 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,

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lighting of the solar photovoltaic installation shall be directed downward and shall incorporate full cut-off fixtures to reduce light pollution.

6.6.4.2 **Signage:** Signs on Large Scale Ground-mounted Solar Photovoltaic Installations shall be limited to identification of the owner-operator and 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 or operator of the solar photovoltaic installation.

6.6.4.3 **Utility Connections:** Reasonable efforts, as determined by the Site Plan Review Authority, shall be made to place all utility connections from the Large Scale Ground-mounted 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.

6.6.5 Safety and Environmental Standards

6.6.5.1 **Emergency Services:** The Large Scale Ground-mounted Solar Photovoltaic Installation owner or operator shall provide a copy of the project summary, electrical schematic, and site plan to the Oakham 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 Large Scale Ground-mounted Solar Photovoltaic Installation shall be clearly marked. The owner or operator shall identify a person responsible for public inquiries throughout the life of the installation.

6.6.5.2 **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 Large Scale Ground-mounted Solar Photovoltaic Installation or otherwise prescribed by applicable laws, regulations, and bylaws. Massachusetts Department of Energy Resources (DOER) strongly discourages locating solar photovoltaic installations on sites that would require extensive tree cutting, because of the important water management, cooling and climate benefits trees have.

6.6.6 Monitoring and Maintenance

6.6.6.1 **Solar Photovoltaic Installation Conditions:** The Large Scale Ground-mounted Solar Photovoltaic Installation 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 Medical Services. The owner or operator shall be responsible for the cost of maintaining the Large Scale Ground-mounted Solar Photovoltaic Installation and any access road(s), unless accepted as a public way.

6.6.6.2 **Modifications:** All modifications to a Large Scale Ground-mounted Solar Photovoltaic Installation made after issuance of the required building permit shall require approval by the Site Plan Review Authority.

6.6.7 Abandonment or Decommissioning

6.6.7.1 **Removal Requirements:** Any Large Scale Ground-mounted Solar Photovoltaic Installation which has reached the end of its useful life or has been abandoned consistent with Section 6.6.7.2 of this bylaw shall be removed. The owner or operator shall physically remove the installation no more than one hundred fifty 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:

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- A. Physical 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 Site Plan Review Authority may allow the owner or operator to leave landscaping or designated below-grade foundations in order to minimize erosion and disruption to vegetation.

6.6.7.2 **Abandonment:** Absent notice of a proposed date of decommissioning or written notice of extenuating circumstances, the Large Scale Ground-mounted Solar Photovoltaic Installation shall be considered abandoned when it fails to operate for more than one hundred fifty days without the written consent of the Site Plan Review Authority. If the owner or operator of the Large Scale Ground-mounted Solar Photovoltaic Installation fails to remove the installation in accordance with the requirements of this section within one hundred fifty days of abandonment or the proposed date of decommissioning, the town may enter the property and physically remove the installation.

6.6.8 Financial Surety: Prior to issuance of a building permit, applicant shall comply with financial surety requirements of this bylaw. Applicants for Large Scale Ground-mounted Solar Photovoltaic Installation projects shall post an initial bond payable to the Town of Oakham, 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 Review Authority, but in no event to exceed more than one hundred twenty-five percent of the cost of removal and compliance with the additional requirements set forth herein, as determined by the applicant. Such surety will not be required for municipally-owned 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. The amount of surety bond shall be subject to the approval of a consultant hired by the Town: an engineer or other qualified professional registered to practice in the Commonwealth of Massachusetts.

6.6.9 Severability: If any section of this bylaw is ruled invalid, such ruling will not affect the validity of the remainder of the bylaw.

Adopted by unanimous vote at Annual Town Meeting, June 10, 2013. Approved by Attorney General Martha Coakley, September 23, 2013.

Section 7. Administration

- 7.1 Enforcement:** This bylaw shall be enforced by the Zoning Enforcement Officer appointed by and under authority of the Board of Selectmen.
- 7.2 Issuance of Building or Use Certificates:** The Building Inspector may issue a building or use permit when it is determined the application complies with all local and state laws or codes.
- 7.3 Certificate of Occupancy:** No land shall be occupied or used and no building or structure hereinafter erected or structurally altered shall be occupied or used unless a certificate of occupancy has been issued by the Building Inspector. Such certificate shall state that the structure and use of structure and land comply in every respect with the provisions of this bylaw in effect at the time of issuance. A certificate of occupancy shall be conditional on the maintenance of full compliance with the provisions of this bylaw in effect at the time of issuance or with restrictions imposed in a decision of the Planning Board or the Board of Appeals and shall lapse if such compliance fails.
- 7.4 Special Permits:** Applications for Special Permits will be considered by the Planning Board.

A public hearing will be held on each application within sixty-five days after filing of application.