

SOLAR BYLAW – May 2018

SECTION II ZONING DISTRICTS

2.0 TYPES OF DISTRICTS

For the purpose of this bylaw, the Town of Westhampton is hereby divided into the following types of districts:

AR-----Agricultural Residential

FPD-----Floodplain District

WS-----Water Supply Protection District

SPD-----Solar Photovoltaic District

SECTION III PRINCIPAL USE SECTION

3.0 SCHEDULE OF USE REGULATIONS

| TABLE 1 WESTHAMPTON SCHEDULE OF USE REGULATIONS | | | | |
|---|------------------------------------|---------------------------|------------------|------------|
| BYLAW NUMBER | LAND USE AND CLASSIFICATION | STANDARDS & CONDITIONS | ZONING DISTRICTS | |
| | | | AR | FPD WS SPD |
| ACCESSORY USES | | | | |
| 3.096 | Roof Mounted Solar Energy System | | See Section 5.13 | |
| 3.097 | Ground Mounted Solar Energy System | | See Section 5.14 | |

SECTION V SPECIAL REGULATIONS

5.13 Roof Mounted Solar Energy System

- i Roof Mounted systems are allowed by-right, and shall be reviewed by the Building Inspector before Issuance of a building permit.

5.14 Ground Mounted Solar Energy System

i Purpose:

The purpose of this Section is to provide standards for the design, placement, construction, operation, monitoring, modification and removal of Ground Mounted Solar Energy System installations while addressing public safety and minimize impact on scenic, natural and historic resources.

ii Applicability:

- a. This Section applies to all ground mounted solar energy installation applied for 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.
- b. Within the Solar Photovoltaic Overlay District only, Ground Mounted Solar Photovoltaic Installations (including Large Scale) are permitted By-Right Siting (subject to Site Plan Review) when the lot coverage of all of the arrays, structures and buildings do not exceed an aggregate of 1.5 acres. The calculations of the lot coverage area shall exclude required setbacks and wetlands. The combined area of multiple installations (new or existing) on a single lot, or adjacent lots in common ownership shall be used to determine accordance with the 1.5 acre threshold.

iii Dimensions and Placement of Ground Mounted Solar Energy Systems:

- a. All Ground Mounted Solar Energy Systems shall be no higher than 35 feet.
- b. All Ground Mounted Solar Energy Systems shall meet Front setback of 50 feet, side setbacks of 20 feet, and rear setback of 20 feet.
- c. No Ground Mounted Solar Energy System shall be placed within the 50 foot front setback.
- d. All Ground Mounted Solar Energy Systems shall be positioned such that they do not interfere with access to, or functioning and maintenance of, existing on-site septic system components.
- e. **SMALL SCALE:** A Small Scale is an Active Solar Energy System that occupies 2,100 square feet or less of surface area of solar panels. Small Scale Ground Mounted Solar Energy Systems are allowed By-Right, and shall be reviewed by the Building Inspector before issuance of a building permit
- f. **MEDIUM SCALE:**
Medium Scale Ground Mounted Solar Energy Systems is an Active Solar System that occupies more than 2,100 but less than 32,000 square feet of surface area of solar panels. Medium Scale Ground Mounted Systems will require a Site Plan Review from the Site Plan Review Authority, before issuance of a building permit.

g. **LARGE SCALE:** a Large Scale Ground Mounted Solar Energy Systems is an Active Solar System that occupies more than 32,000 square feet of surface area of solar panels. Large Scale Ground Mounted Solar Energy Systems are encouraged to be placed in the Solar Photovoltaic District. Large Scale Ground Mounted Solar Energy Systems not located in the Solar Photovoltaic District shall apply for a Site Plan Approval/Special Permit/Planning Board. Large Scale Ground Mounted Solar Energy Systems located in the Solar Photovoltaic District (SPD) require a Site Plan Review. Systems located in the (SPD) are By-Right. No Ground Mounted Solar Energy System shall be installed upon or at the Westhampton capped landfill or Transfer Station without written consent and permitting from the Massachusetts Department of Environmental Protection (DEP).

- iv **Utility Notification** - No ground mounted solar energy system 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 notified of the Solar Energy installation Project Proponent's intent to install an interconnected customer owned generator. Off grid system shall be exempt from this requirement.
- v **Dimension and Density Requirements** - Ground Mounted Solar Energy System installation shall comply with the density and dimensional requirements of Town of Westhampton Zoning Bylaws.
- vi **Structures** - All structures for Ground Mounted Solar Energy Systems shall be subject to existing bylaws. All appurtenant structures, including but not limited to, equipment shelters, storage facilities, transformers, and substations, shall be architecturally compatible with each other.
- vii **Design Standards** - Projects shall be designed to:
 - a. Minimize the volume of cut and fill, the number of removed trees 10" caliper or larger, the length of removed stone walls, the area of wetland vegetation displaced, the extent of stormwater flow increase from the site, soil erosion, and threat of air and water pollution.
 - b. Maximize pedestrian and vehicular safety when on the site and entering and exiting the site.
 - c. Minimize obstruction of scenic views from publicly accessible locations.
 - d. Minimize visual intrusion by controlling the visibility of parking, storage, or other outdoor service areas viewed from public ways or premises residentially used or zoned.
 - e. Minimize glare from headlights and light trespass.
 - f. Ensure adequate access to each structure for fire and service equipment and adequate provisions for utilities and stormwater drainage.
 - g. **Site Lighting** - Lighting of solar energy 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, lighting of the solar energy installations shall be

directed downward and shall incorporate full cutoff fixtures to reduce light pollution.

- h. Signage - No signage on ground mounted solar energy installations is permitted other than those required to identify voltage and electrocution hazards as well as the owner, and provide a 24 hour emergency contact phone number. Solar energy installations shall not be used for displaying any advertising except for reasonable identification of the manufacturer or operator of the solar energy installation.
- i. Utility Connections - Reasonable efforts, as determined by the Site Plan Review Authority, shall be made to place all utility connections from the solar energy 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.

viii Safety Environmental Standards:

- a. Emergency Services - The ground mounted solar energy installation Project Proponent shall provide a copy of the project summary, electrical schematic, and site plan to the local fire chief. Upon request the Project Proponent shall cooperate with local emergency services in developing an emergency response plan. All means of shutting down the solar energy installation shall be clearly marked. The Project Proponent shall identify a responsible person for public inquiries throughout the life of the installation.
- b. 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 ground mounted solar energy installation or otherwise prescribed by applicable laws, regulations, and bylaws. Such installations shall not occur on any slopes greater than 15% in order to minimize erosion. No more than 50% of the land parcel utilized for ground mounted solar energy installations shall contain land requiring clearing of forest.
- c. No topsoil shall be removed from the land parcel under consideration for ground mounted solar energy installations. If earthworks operations are required, topsoil shall be stockpiled within the property bounds and protected against erosion until such time earthwork operations are completed and topsoil can be re-spread over parcel. Earthworks shall be planned to limit export of soil material (non-topsoil) to 1000 cubic yards per acre effected by installation. A detailed earthworks estimate is a required submittal component providing this quantity is maintained.
- d. Impact on Agricultural and Environmentally Sensitive Land - The Solar Energy Generating Installation shall be designed to minimize impact to agricultural and environmentally sensitive land and to be compatible with continued agricultural use of the land whenever possible. No more than 50% of the total land area proposed for the solar electric field may be occupied by the solar panels, with the remainder of the land remaining as undeveloped open space left in its natural state.
- e. Vegetation Management - Mowing or grazing is helpful to minimize the amount and height of "fuel" available in case of fire.
- f. All land associated with the ground mounted solar energy installation shall be covered and grown in natural vegetation. All ground surface areas beneath

solar arrays and setback areas shall be pervious to maximize on-site infiltration of stormwater. Impervious paving of areas beneath solar arrays is prohibited. To the greatest extent possible, a diversity of plants species shall be used, with preference given to species that are native to New England. Use of plants identified by the most recent copy of the "Massachusetts Prohibited Plant List" maintained by the Massachusetts Department of Agricultural Resources is prohibited. Herbicides shall be applied only by licensed personal in conformance with all applicable state regulations.

- g. All Medium and Large Scale ground mounted solar energy system installations shall be enclosed by a secure fence to keep wildlife, and unauthorized people out of the solar field. A security locking system, approved by the fire chief, shall be in place for emergency entrance.

ix Monitoring and Maintenance

- a. Ground Mounted Solar Energy Installations Conditions - Project Proponent shall maintain the facility in good condition. Maintenance shall include, but not be limited to, painting, structural repairs, fencing and integrity of security measures. The Project Proponent shall be responsible for the cost of maintaining the solar energy installation and any access road(s), unless accepted as a public way.
- b. Modifications - All material modifications to a solar energy installation made after issuance of the required building permit shall require approval of the Site Plan Review Authority.

- x Outside Consultant Fees - In addition to the normal filing fee, the Planning Board may, "at its discretion", charge the applicant with a fee to hire "outside consultants" to assist the Board in administering and reviewing applications.

xi Additional Requirements for Medium and Large Scale Ground Mounted Solar Energy Systems: In addition to the requirements set forth above, all Medium and Large Scale Ground Mounted Solar Energy Systems must comply with the following:

- a. General- All plans and maps shall be prepared, stamped and signed by a Professional Engineer licensed to practice in the Commonwealth of Massachusetts.
- b. Required Documents - Pursuant to the site plan review process, the project proponent shall provide the following documents:
 - a) A site plan showing:
 - (1) Property lines and physical features, including roads for the project site;
 - (2) Proposed changes to the landscape of the site, grading, vegetation clearing and planting, exterior lighting, screening vegetation or structures;
 - (3) Blueprints or drawings of the solar energy 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;
 - (4) One or three line electrical diagram detailing the solar Energy installation, associated components and electrical interconnection

methods, with all Massachusetts Electric Code compliant disconnects and overcurrent devices;

- (5) Documentation of the major system components to be used, including the PV panels, mounting system, and inverter;
- (6) Name, address, and contact information for proposed system installer;
- (7) Name, address, phone number and signature of the Project Proponent;
- (8) Name, contact information and signature of any agent representing the Project Proponent.

b) Stormwater Management Plan.

c) Erosion & sediment control plan.

d) Documentation of actual or prospective access and control of the project site.

e) An operation and maintenance plan.

f) Proof of liability and builder's risk insurance.

g) A public outreach plan, including the project development timeline, which indicates how the project proponents will meet the required site plan review notification procedures and otherwise inform abutters and the community.

h) 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 installation.

i) Operation and Maintenance Plan - The Project Proponent shall submit a plan for the operation and maintenance of the ground mounted solar energy 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.

j) Abandonment & Decommissioning Plan - The Project Proponent shall submit a Decommissioning Plan. Any Solar Energy generating installation which has reached the end of its useful life or has been abandoned (i.e. when either it fails to complete within a commercially reasonable time (such that the power generation can commence), or it fails to operate for an elapsed time of more than one year without the written consent of the Planning Board) shall be removed. The owner or operator shall physically remove the installation within 150 days of abandonment or the proposed date of decommissioning. The owner or operator shall notify the Planning Board by certified mail of the proposed date of discontinued operations and the plans for removal. The Abandonment & Decommissioning Plan shall include a detailed description of how all of the following will be addressed:

1. Physical removal of all structures, equipment, buildings, security barriers and transmission lines from the site, including any material used to limit vegetation.
2. Dispose of all solid and hazardous waste in accordance with local, state, and federal waste disposal regulations.
3. 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 designed below-grade foundations in order to minimize erosion and disruption to vegetation.
4. Financial surety for Decommissioning - Proponents of Solar Energy Generating Facilities shall provide a form of surety, either through escrow account, bond or other form of surety approved by the Planning Board to cover the estimated 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 Planning 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 and the Planning Board. Such surety will not be required for municipal or state-owned facilities. The project proponent shall submit a fully inclusive detailed itemized cost estimate of the town's estimated cost (including "prevailing wages") associated with removal and full decommissioning of the facility and the site, prepared by a qualified engineer. The amount shall include a mechanism for calculating increased removal cost due to inflation at the end of the facility's useful life. Said estimated cost shall not include or deduct the value of material recycling. Said surety in its full amount shall be presented to the Planning Board prior to the Project Proponent applying for a Building Permit or the commencement of construction.
5. All legal documents required to enable the Town to exercise its rights and responsibilities under the plan to decommission the site, enter the property and physically remove the installation.

- c. Visual Impact Mitigation: the plan for a Medium or Large Scale Ground Mounted Solar Energy System shall be designed to preserve the on-site and abutting natural and developed features. In natural (undeveloped) areas, existing vegetation shall be retained to the greatest extent possible, especially where such vegetation provides a benefit to the natural environment. In developed areas, the design of the installation shall consider and incorporate human-design landscape features to the greatest extent, including contextual landscape amenities that complement the physical features of the site and abutting property. Whenever reasonable, structures should be screened from view by vegetation and/or joined or clustered to avoid adverse visual impacts and be architecturally compatible with each

other. Vegetation shall be varieties native to New England and a mix of deciduous and evergreen species. 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 installation by the Building Inspector.

- xii WAIVERS - The Planning Board may, upon the prior written request of the applicant and by a 3/4 majority affirmative vote of the full complement of the Board, waive any of the requirements of this sub-section, but must state their reasons for doing so in writing as part of their decision.

DEFINITIONS:

By-Right: The siting of a development may proceed without the need for a special permit or other discretionary approval. However, development shall be subject to site plan review to determine conformance with local zoning ordinances, bylaws, federal and state building codes, and to protect the public health, safety and welfare. Siting of projects cannot be prohibited, but can be reasonably regulated by the local building inspector, local inspectors, and designated Site Plan Review Authority

Building Inspector: The lead person in a municipal building department. All other inspectors are deemed to be local inspectors in accordance with MGL, chapter 143, & section 3 & 3A. The building inspector is also the zoning enforcement officer.

Building Permit: A construction permit issued by an authorized building inspector; the building permit affirms that the project is consistent with the state and federal building codes as well as local zoning bylaws.

Project Proponent: The applicant, property owner, facility developer, operator and management entity, jointly and severally, of a project. Each of the responsible parties shall be responsible for adhering to the requirements set forth in this bylaw.

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

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

Site Plan Review Authority: The person or group designated as such by the applicable section of the bylaw to perform Site Plan Review is the Planning Board.

Solar Energy System Installation 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 Installation Large Scale: An Active Solar Energy System that occupies 32,000 square feet or greater of surface area of solar panel.

Photovoltaic System: (also referred to as Photovoltaic Installation): An Active solar energy system that converts solar energy directly into electricity.

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 or 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 Installation Medium Scale: An Active Solar Energy System that occupies more than 2,100 but less than 32,000 square feet of surface area of solar panel.

Solar Energy System, Off Grid: A Solar Energy System in which the circuits energized by the solar energy system are not electrically connected in any way to electric circuits that are served by an electric utility.

Solar Energy System, Passive: A Solar Energy System that captures solar light or heat without transforming it to another form of energy or transferring the energy via a heat exchanger.

Solar Energy System Roof Mounted: An Active Solar Energy System that is structurally mounted to the roof of a building or structure; may be of any size (small-, medium-, or large scale).

Solar Energy System Installation Small Scale: An Active Solar Energy System that occupies 2,100 square feet or less of surface area of solar panel

Solar Thermal System: An Active Solar Energy System that uses collectors to convert the sun's rays into useful forms of energy for water heating, space heating, or space cooling.