

Town of Woolwich

Solar Energy Systems Ordinance

1. Title, Authority, Purpose and Applicability

1.1. Title

This Ordinance shall be known as, and may be cited as, the Town of Woolwich Solar Energy Systems Ordinance

1.2. Authority and Administration

This Ordinance is enacted pursuant to the Home Rule Authority granted to the Town of Woolwich in accordance with the provisions of Title 30-A M.R.S.A. §3001 - §3014. This Ordinance shall be administered by the Code Enforcement Officer (CEO), the Select Board, and the Planning Board, as applicable.

1.3. Purpose

The purpose of this ordinance is to establish a municipal review procedure and performance standards for residential, commercial, and industrial solar energy systems, including those typically characterized as “solar farms”. These standards are intended to:

- 1.3.1. Establish clear guidelines, standards, and timeframes for the Town to regulate Solar Energy Systems (SES);
- 1.3.2. Permit the Town to fairly and responsibly protect public health, safety, and welfare;
- 1.3.3. Minimize any potential adverse effect of solar development on surrounding land use and town infrastructure;
- 1.3.4. Provide for the decommissioning/removal of panels and associated utility structures that are no longer being used for energy generation and transmission purposes; and
- 1.3.5. Support the goals and policies of the Town’s Comprehensive Plan, including orderly development, efficient use of infrastructure, and protection of natural, scenic, and agricultural resources.
- 1.3.6. This Ordinance is a supplement to the Town’s Site Plan Review, Planning and Shoreland Ordinances. All aspects of the development, operation and decommissioning of a solar energy system in the Town of Woolwich are governed by each of these ordinances, where applicable. To the extent there is any conflict between the provisions of this Ordinance and any other Town ordinance, the more specific and restrictive shall control.
- 1.3.7. Solar energy systems shall require review and approval as follows:
 - 1.3.7.1. Residential: Requires a building permit from Code Enforcement Officer
 - 1.3.7.2. Commercial:
 - 1.3.7.2.1. Roof-mounted: Requires building permit from Code Enforcement Officer
 - 1.3.7.2.2. Ground-mounted: Requires site plan review followed by a building permit from the Code Enforcement Officer.
 - 1.3.7.3. Industrial: Requires site plan review and a public hearing held by the Planning Board followed by a building permit from the Code Enforcement Officer.

1.4. Applicability

- 1.4.1. This Ordinance shall apply to SES applications filed with the Code Enforcement Officer or Planning Board after the effective date herein.
- 1.4.2. This Ordinance shall authorize Commercial or Industrial SESs to be installed only in the Rural District, General Purpose District, or on properties owned by the Town. No solar energy systems shall be permitted in the Shoreland Zone
- 1.4.3. This Ordinance shall authorize Residential SES to be installed on any residential property in any District.

- 1.4.4. A Solar Energy System approved for construction prior to the effective date of this Ordinance shall not be required to meet the terms and conditions of this Ordinance. Any physical modification to any existing SES, whether or not existing prior to the effective date of this Ordinance, that expands or relocates the footprint of the SES, shall require approval under this Ordinance. Routine maintenance and/or replacements do not require a permit.
- 1.4.5. Any modifications to an Industrial SES or ground-mounted Commercial SES made after issuance of the required town permit(s) shall require approval by the Planning Board.
- 1.4.6. Any modifications to a Residential or roof-mounted Commercial SES made after issuance of the required town permit(s) shall require approval by the Code Enforcement Officer.
- 1.4.7. Severability Clause. If any section, clause, paragraph, sentence or phrase of this ordinance shall, for any reason, be held to be invalid or unconstitutional, such invalid section, clause, paragraph, sentence or phrase is hereby declared to be severable; and any such invalid or unconstitutional section, clause, paragraph, sentence or phrase shall in no way affect the remainder of this ordinance.

2. Definitions

- 2.1. Solar Energy System (SES): A solar photovoltaic cell, module, or array, or solar hot air or water collector device, including all Solar Related Equipment, which relies upon solar radiation as an energy source for collection, inversion, storage, and distribution of solar energy for electricity generation or transfer of stored heat.
- 2.2. Residential SES: A system used for producing energy primarily for use at the property where the applicant resides (this includes authorized home businesses).
- 2.3. Commercial SES: A system used for producing energy primarily for use at a property where the applicant operates a business or where the applicant rents or leases space to another individual or entity for business purposes.
- 2.4. Industrial SES: A system used primarily for the production of energy for the power grid.
- 2.5. Decommissioning: The process of removing the solar energy system and restoring the site to the standards described in the applicant's Town permit, the Maine DEP approval, if applicable, or the state's standards in effect at the time of decommissioning, whichever are more restrictive to the owner/operator.
- 2.6. Roof-mounted: A Solar Energy System that is mounted to the roof of a building.
- 2.7. Ground-mounted: A Solar Energy System that is mounted directly to the ground.

3. Permit Application Requirements

In addition to the requirements listed in the Town of Woolwich Site Plan Review Ordinance, an application for an Industrial or ground-mounted Commercial Solar Energy System Permit must also include the following, at the cost of the Applicant:

- 3.1. A description of the owner of the SES, the operator if different, and detail of qualifications and track record to run the facility;
- 3.2. If the operator will be leasing the land, a copy of the agreement (minus financial compensation) clearly outlining the relationship inclusive of the rights and responsibilities of the operator, landowner and any other responsible party with regard to the SES and the life of the agreement;
- 3.3. A description of how and to whom the energy produced will be sold;
- 3.4. A copy of the agreement and schematic details of the connection arrangement with the transmission system (most likely Central Maine Power), clearly indicating which party is responsible for various requirements and how they will be operated and maintained;
- 3.5. Plans depicting the layout, design and installation of the SES which shall conform to applicable industry standards, such as those of the American National Standards (ANSI), Underwriters

- Laboratories (UL), the American Society for Testing and Materials (ASTM), Institute of Electrical and Electronics Engineers (IEEE), Solar Rating and Certification Corporation (SRCC), Electrical Testing Laboratory (ETL), Florida Solar Energy Center (FSEC) or other similar certifying organizations, and shall comply with local ordinances, and with all other applicable fire and life safety requirements.
- 3.6. A description of the panels to be installed, including make and model, and associated major system components. The manufacturer specifications for the key components of the system shall be submitted as part of the application.;
 - 3.7. Copies of all state and federal permits and approvals required for the SES development;
 - 3.8. A construction plan and timeline, identifying known contractors, site control and anticipated on-line date;
 - 3.9. Construction Documents
 - 3.9.1. Construction Drawings and Specifications shall comply with all applicable statutes, regulations, standards, and ordinances issued by Federal, State and local jurisdictions.
 - 3.9.2. All Construction Documents and Specifications shall be prepared and stamped by a registered professional engineer in the State of Maine.
 - 3.10. Boundary Survey. A boundary survey for the parcel performed by a licensed land surveyor, including but not limited to:
 - 3.10.1. Comprehensive deed research investigation of the County Registry of Deeds;
 - 3.10.2. Define the limits of the property including all property corners and tangents, monuments and exceptions;
 - 3.10.3. Adjacent properties with lot number, acreage and property owner;
 - 3.10.4. Locate all major structures, roads and parking;
 - 3.10.5. Report Notes containing purpose of the survey, ownership and deed references, method of measurements, and past survey references. Also include any conflicts, exceptions, findings and opinions.
 - 3.11. A set of large scale drawings showing the proposed improvements to the property. This includes:
 - 3.11.1. Site boundaries and delineation of the property and adjacent properties, showing Lot Numbers;
 - 3.11.2. Location of all structures and their relationship to the boundaries and adjacent structures. Include all new, existing and demolished structures;
 - 3.11.3. Location of Land Use Zones and setbacks as set forth in the Shoreland Zoning Ordinance and/or Planning Ordinance;
 - 3.11.4. Location of all roads and parking areas and their relationship to the boundaries and adjacent structures;
 - 3.11.5. Any zones such as floodplain or wetland zones;
 - 3.11.6. The location of all wetlands and vernal pool buffers located on the parcel or depicted on Maine Department of Environmental Protection Maps as being located on abutting parcels;
 - 3.11.7. Easements and other similar entitlements;
 - 3.11.8. Other site features and components the Planning Board may request.
 - 3.12. An operations and maintenance plan, including site control and the projected operating life of the system; Such a plan shall include measures for maintaining safe access to the installation, stormwater controls, as well as general procedures for operational maintenance of the installation. Additionally, such plans shall include efforts to promote beneficial flora and fauna (e.g., honeybees, butterflies, etc.) as well as a commitment to not using pest-control substances (e.g., pesticides, herbicides, fungicides, and/or insecticides);
 - 3.13. An emergency management plan for all anticipated hazards;

- 3.14. A stormwater management plan, certified by a licensed Maine engineer, that demonstrates that adequate provisions have been made for the collection, treatment, and disposal of stormwater runoff from the SES in compliance with Maine DEP Rules Chapter 500, "Stormwater Management";
- 3.15. Evidence from the manufacturer regarding the estimated noise output of all equipment anticipated for use in the SES;
- 3.16. Proof of financial capacity to construct and operate the proposed facility;
- 3.17. For Industrial SES's, A decommissioning plan, including:
 - 3.17.1. A description of the trigger for implementing the decommissioning plan. There is a rebuttable presumption that decommissioning is required if 10% or less permitted capacity of electricity is generated for a continuous period of twelve (12) months. The Applicant may rebut the presumption by providing evidence, such as a force majeure event that interrupts the generation of electricity, that although the project has not generated electricity for a continuous period of 12 months, the project has not been abandoned and should not be decommissioned; If reasonable evidence cannot be supplied, or if the applicant chooses to forego this submission, decommissioning must begin within 18 months of the cessation of power generation at the facility;
 - 3.17.2. A description of the work required to physically remove all Solar Energy System and Solar Related Components, including associated foundations, buildings, cabling, electrical components, and any other associated facilities to the extent they are not otherwise in or proposed to be placed into productive use. All earth disturbed during decommissioning must be graded and re-seeded, unless the landowner of the affected land requests otherwise in writing and subject to Planning Board approval.
 - 3.17.2.1. At the time of decommissioning, the Applicant may provide evidence of plans for continued beneficial use of any or all of the components of the Solar Energy System. Any changes to the approved decommissioning plan shall be subject to review and approval by the Planning Board.
 - 3.17.3. An estimate of the total cost of decommissioning value of the equipment and itemization of the estimated major expenses, including the projected costs of measures taken to minimize or prevent adverse effects on the environment during implementation of the decommissioning plan. The itemization of major costs may include, but is not limited to, the cost of the following activities: panel removal, panel foundation removal and permanent stabilization, building removal and permanent stabilization, transmission corridor removal and permanent stabilization and road infrastructure removal and permanent stabilization.
 - 3.17.4. Demonstration in the form of a performance bond, surety bond, or other form of financial assurance as may be acceptable to the Planning Board that the Applicant will have the necessary financial assurance in place for 150% of the estimated total cost of decommissioning as of the anticipated end of the useful life of the SES, subject to a review of such cost by the Planning Board, with the advice of the Code Enforcement Officer. The financial assurance shall include a provision granting the Town the ability to access the funds and property and perform the decommissioning if the facility is abandoned or the Applicant or subsequent responsible party fails to meet their obligations after reasonable notice, to be defined in the agreement and approved by the Planning Board. At the time of each inspection required by Section 9, the applicant must re-evaluate the decommissioning cost and submit proof of acceptable financial assurance to the Code Enforcement Officer for review and approval. Failure to timely submit this information shall be considered a violation of this Ordinance and may result

in an order to cease generating energy from the SES until the updated decommissioning cost and any updated financial assurance is provided.

3.17.4.1. The applicant may apply to the Planning Board for release of the guarantee at such time that it or its assignees remove the system and associated abandoned structures, and such completed removal is found to be satisfactory by the Planning Board with the advice of the Code Enforcement Officer.

- 3.18. The owner of a Solar Energy System shall provide the Code Enforcement Officer written confirmation that the public utility company to which the Solar Energy System will be connected has been informed of the customer's intent to install a grid connected system. The owner shall provide a copy of the final inspection report and connection approval from the utility company to the Code Enforcement Officer prior to the issuance of a certificate of use and occupancy for the Solar Energy System.
- 3.19. If a Solar Energy System is being used as an accessory use to commercial/industrial activity on another property, the application shall provide information on the intent of the Solar Energy System.

4. **Standards for Approval**

In addition to the Site Review standards and requirements included in the Town's Site Plan Review Ordinance, the following standards must also be met for industrial and commercial solar energy systems:

- 4.1. **Lots.** The lot on which the Solar Energy System is located shall meet the lot size and frontage requirements of the applicable zoning district.
- 4.2. **Siting.** The Town of Woolwich encourages siting of SES to make beneficial use of land not suited to other purposes, to minimize clearcutting, to avoid impacts on wildlife habitat and to minimize disruption of productive farmland. The following siting requirements shall be met:
- 4.2.1. The development area shall not intrude into wetlands, vernal pools, or significant vernal pool buffers
- 4.2.2. Where a SES is to be placed on land currently used as farmland or soils designated by the Natural Resources Conservation Service as prime farmland or farmland of statewide importance, dual use shall be maintained, with crops, livestock, wildlife or pollinator habitat throughout the panel area and all other cleared areas within the fence.
- 4.3. **Legal.** The Applicant must provide proof that it has authorization to construct, use and maintain the property and any access drive for the life of the project and including the decommissioning of the project. The roles and responsibilities of the system owner, operator, landowner and any other party involved in the project must be clear and meet the satisfaction of the Planning Board that the public interest is protected. The owner or operator of a Commercial or Industrial SES shall build and maintain it in compliance with all relevant Federal, State and Local Laws, Regulations, and Ordinances.
- 4.4. **Setback.** Structures within a SES shall be setback a minimum of 100 feet from all lot lines.
- 4.5. **Height.** Building-integrated and roof-mounted systems shall not increase the total building height above the maximum height allowed in the Site Plan Review, Shoreland or Planning Ordinances, as applicable.
- 4.5.1. Ground-mounted commercial solar energy systems shall not exceed 12 feet in height when oriented at minimum tilt to the vertical. This requirement may be waived by the Planning Board if it finds that any additional height will not cause adverse impacts to roadways or adjacent properties.
- 4.5.2. Industrial solar energy systems shall not exceed 25 feet in height when oriented at minimum tilt to the vertical
- 4.6. **Prohibited Locations.**

- 4.6.1. Components of a ground mounted SES shall not be placed within any legal easement or right-of-way location serving a party other than the SES owner/operator, or be placed within any stormwater conveyance system, or in any other manner that would alter or impede stormwater runoff from collecting in a constructed stormwater conveyance system.
- 4.6.2. No solar energy systems shall be permitted in areas of special flood hazard, as defined in the Woolwich Flood Zone ordinance.
- 4.7. **Utility Notification.** No grid-intertied photovoltaic system shall be installed until evidence has been given to the Planning Board that the applicant has an agreement with the utility to accept the power. Off-grid and residential systems are exempt from this requirement.
- 4.8. **Fence.** All ground-mounted SES shall be completely enclosed by a perimeter fence located inside any screening buffer. Fences should be elevated by a minimum of 5 inches to allow for passage of small terrestrial animals. Five-inch or larger diameter wooden escape poles shall be placed in two or more corners of the perimeter fence as an alternative means for wildlife to escape the enclosed area. Fencing shall consist of a minimum eight-foot-high fence with a locking gate.
- 4.9. **Screening.** Lots on which SESs are located shall utilize buffers and/or screening from waterways, roads and residences by plantings, berms, and natural topographical features. Ground mounted SES shall be screened from view to the greatest extent practical of any adjacent property that is used for residential purposes, as well as any public way, waterway, lake or pond. The screen shall consist of a vegetative barrier which provides a visual screen. In lieu of a vegetative screen, a fence that provides visual screening, and meets requirements of the controlling ordinance, may be allowed, only if a vegetative screen is deemed impractical by the Planning Board.
- 4.10. **Glare.** All SES shall be situated to eliminate concentrated glare onto nearby structures or roadways
- 4.11. **Lighting.** Lighting shall be limited to that required for safety and operational purposes and shall be shielded from interference with abutting properties. Lighting of the SES shall be directed downward and shall incorporate full cut-off fixtures to reduce light pollution. Other than lighting required for safety or by applicable federal, state, or local authority, lighting shall not be used/ visible between 9pm and 7am.
- 4.12. **Utility Connections.** All on-site utility transmission lines and plumbing shall be placed underground. If, however, the applicant can demonstrate that this would not be technically feasible, or allowable under applicable interconnection standards or agreements, then the applicant may be considered for a waiver of this requirement as determined by the Planning Board.
- 4.13. **Safety.** The SES owner or applicant shall provide a copy of the site plan review application to the Fire Chief for review and comment. The Fire Chief shall base any recommendation for approval or denial of the application upon review of the fire safety of the proposed system.
- 4.14. **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 ground-mounted solar energy systems or as otherwise prescribed by applicable laws, regulations, and bylaws/ ordinances. Ground-mounted facilities shall minimize mowing to the extent practicable. Removal of mature trees shall be avoided to the extent possible. Native, pollinator-friendly seed mixtures shall be used to the extent possible. Herbicide and pesticide use shall be minimized. No prime agricultural soil or significant volume of topsoil shall be removed from the site for installation of the system.

- 4.14.1. Any topsoil to be stripped shall be stockpiled on site in such a way to ensure that there is no mixing with subsoils. Stockpiled soil shall be seeded and mulched or otherwise stabilized within 14 days of placement.
- 4.14.2. Stripped topsoil shall be spread evenly on disturbed areas prior to seeding.
- 4.15. **Signage.** A sign shall be placed on the industrial solar energy system to identify the owner and provide a twenty-four-hour emergency contact phone number. Signage shall comply with the Town's Sign Ordinance. Appropriate safety and warning signs in and around the facility shall be used as needed.
- 4.16. **Emergency Planning.** The industrial solar energy system owner or operator shall provide a copy of the project summary, electrical schematic, and site plan to the Fire Chief. Upon request, the owner or operator shall cooperate with the Fire Department in developing an emergency response plan and any necessary training. All means of shutting down the system shall be clearly marked, and a "Knox Box" shall be installed to enable Emergency Services responders to access the facility.
- 4.17. **Emergency Access.** The solar facility must provide adequate access, parking, and circulation for service and emergency vehicles, as determined by the Planning Board in consultation with the Fire Chief. At least one 20-foot wide all-weather access way must be provided from a public way to the facility. The access way must comply with the performance standards for roads set forth in the Planning Ordinance and include appropriate turning areas and turnarounds to facilitate access by emergency vehicles.
- 4.18. **Preservation of Town's Character.** All reasonable efforts, as determined by the Planning Board, shall be made to ensure any SES is consistent with the character of the community via visual consistency with local neighborhood area, maintenance of scenic views, maintenance of open space land and farms, and the Town Comprehensive Plan.
- 4.19. **Mitigation of road damage.** Town Roads shall not be unduly damaged by construction or decommissioning activities, and permit approval shall be contingent upon the applicant providing a Road-Commissioner-approved plan to mitigate road damage.

5. Performance Standards

- 5.1. **Contact Information.** The owner or operator shall provide to the Town the name and contact information of a responsible person for public inquiries throughout the life of the installation.
- 5.2. The Commercial or Industrial SES shall be properly maintained, including but not limited to, painting, structural repairs, and integrity of security measures. Facilities shall be kept free from all hazards including, but not limited to, faulty wiring, loose fastenings, being in an unsafe condition or detrimental to public health, safety or general welfare. The owner or operator shall be responsible for the cost of maintaining the solar energy system and any access road(s).
- 5.3. Site access shall be maintained to a level acceptable to the local Public Safety Officials, including snow removal. Access drives shall be maintained with adequate gravel base to allow for access by emergency management vehicles.
- 5.4. A clearly visible warning sign shall be placed at the base of all pad-mounted transformers and substations and on the fence surrounding the SES informing individuals of potential voltage hazards.
- 5.5. If ownership of an Industrial or Ground-Mounted Commercial SES is transferred after the date of the approval, the new owner shall within 60 days of ownership submit updated identification of the owner as well as any updated lease or other rights (if not by deed) to the SES.

6. Financial Responsibilities of applicant/owner/operator

6.1. **Liability insurance.** Through the life of the facility, the applicant/owner/operator shall maintain a current general liability (GL) policy in an amount commensurate to the potential liability of the solar energy system.

7. Decommissioning

7.1. Any Commercial or Industrial SES that has reached the end of its useful life, ceases to generate power or has been abandoned shall be removed pursuant to a plan approved by the Planning Board during the application process. The landowner, or SES owner or operator shall physically remove the installation no more than 180 days after the date of discontinued operations. The owner or operator shall notify the Code Enforcement Officer by certified mail, return receipt requested, of the proposed date of the discontinued operations and plans for removal.

8. Application Fee

8.1. The applicant shall provide all materials required by the Planning Ordinance and Site Plan Ordinance for the type of review sought, as well as any specific submission requirements of this Ordinance.

8.2. Fee Schedule

8.2.1. For Commercial SES The Application fee is \$1,000

8.2.2. For Industrial SES The Application fee is \$2,500.

8.2.3. For Residential SES Only a standard Building/Demolition permit fee is required

8.2.4. The Select Board is hereby authorized to make adjustments to the application fee schedule for all SES permits.

9. Periodic Inspection and Permit

9.1. All Commercial and Industrial SES shall be required to receive an inspection prior to the first anniversary of the commissioning date of the SES and every five years thereafter, to confirm ongoing compliance with Articles 4 and 5 of this Ordinance and any conditions of approval. This inspection requirement shall apply to all Commercial and Industrial SES whether constructed or approved before or after the effective date of this Ordinance.

9.2. Inspection Fee. An inspection fee shall be required. This fee is intended to account for the costs of providing the annual inspections by the Code Enforcement Officer and the Fire Chief, or their Consultant.

9.3. Inspection Fee Schedule

9.3.1. Commercial SES: \$1,000 plus \$500 per MW installed

9.3.2. Industrial SES: 2,500 plus \$500 per MW installed

9.3.3. The Select Board is hereby authorized to make adjustments to the inspection fee schedule.

10. Effective Date and Duration

This Ordinance shall take effect immediately upon enactment by the Town of Woolwich and shall remain in effect until it is amended or repealed.

11. Appeals

Appeals from the granting or denial of a project in accordance with this Ordinance shall be in accordance with the standards established in the Building Permit Ordinance (for building permits) or Site Plan Ordinance (for Planning Board decisions).. Appeal applications and variance requests shall be in accordance with Board of Appeals Ordinance Section

12. Enforcement of violations and Penalties

This Ordinance shall be enforced by the municipal officers or their designee. Violation of this Ordinance shall be subject to the enforcement and penalty provisions of 30-A, MRSA § 4452.