TOWN OF SURRY, MAINE

**SOLAR ENERGY ORDINANCE**

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ADOPTED Town of Surry, Town Meeting April

 Effective:

1. **Purpose:**
	1. Solar energy is a renewable energy resource that can reduce fossil fuel emissions and dependence on conventional fuels. Energy generated from Solar Energy Systems can be used to offset energy demand on the grid, with benefits for system owners and other electricity customers.
	2. The standards that follow enable the accommodation of Solar Energy Systems and related Electrical Equipment in a safe manner while still allowing for the enjoyment of property.
	3. This Solar Energy Ordinance (“the Ordinance") is intended to balance the need for reasonable standards with expedited and streamlined development review procedures.
2. **Definitions:** (*These Definitions will be incorporated into the Definitions section, Chapter 2, of the Surry Code of Ordinances.*)

**Decommissioning:** The physical removal of all components of a solar energy development, including but not limited to solar panels and associated anchoring systems and foundations to a depth of at least 36 inches or to the depth of bedrock, whichever is less, and other structures, buildings, roads, fences, cables, electrical components, or associated facilities and foundations to a depth of at least 36 inches or to the depth of bedrock, whichever is less, to the extent the components of the development are not otherwise in or proposed to be placed in productive use otherwise authorized to remain by the permitting entity.

For any portion of a solar energy development located on land classified as farmland at any time within five (5) years preceding the start of construction development, “decommissioning” means the physical removal of such components to the depth of at least 48 inches or to the depth of bedrock, whichever is less, to the extend such components are not otherwise in or proposed to be placed in productive use or otherwise authorized to remain in place by the permitting entity.

“Decommissioning” includes the grading to post construction grade and revegetation of all earth disturbed during construction and decommissioning, except for areas already restored, providing for the recycling of the waste components of the solar energy development that are recyclable, including but not limited to, solar panels, by a facility authorized to accept such materials for recycling and providing for the disposal of the waste components of the solar energy development that are not recyclable by a facility authorized to accept such materials for disposal.

**Electrical Equipment:** Any device associated with a Solar Energy System, such as an outdoor electrical unit/control box, that transfers energy from the Solar Energy System to the intended location.

**Electricity Generation (production, output):**  The amount of electric energy produced by transforming other forms of energy, commonly expressed in kilowatt-hours (kWh) or megawatt-hours (MWh).

**Mounting:** The manner in which a Solar Energy System (SES) or Photovoltaic (PV) system is affixed to a roof or the ground (i.e., roof mount, or ground mount)

**Power:** The rate at which work is performed (the rate of producing, transferring, or using energy). Power is measured in Watts (W), kilowatts (kW), Megawatts (MW), etc. in Alternating Current (AC).

**Solar Array:** Multiple solar panels combined together to create one system.

**Solar Collector:** A solar PV cell, panel, or array, or solar thermal collector device, that relies upon solar radiation as an energy source for the generation of electricity or transfer of stored heat.

**Solar Energy System (SES):** A system of devices or structural design features, including all related equipment, 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, Ground-Mounted:** A solar energy system that is structurally mounted to the ground and is not roof-mounted, and may be of any size as follows:

1. **Solar Energy System, Small-Scale**: A system with a power generation capacity of up to one hundred (100) kilowatts (hereafter “KW”) alternating current (hereafter “AC”).

**b. Solar Energy System, Medium-Scale:** A system with a power generation capacity of between one hundred one (101) KW DC and five hundred (500) KW AC.

**c. Solar Energy Systems, Large-Scale:** A system with a power generation capacity of greater than five hundred one (501) KW AC.

**Solar Energy System, Roof-Mounted:** A Solar Energy System that is mounted on the roof of a building or structure and has a power generation capacity of up to one Hundred (100) KW AC.

**Tilt:** The angle of the solar panels and/or solar collector relative to horizontal. Tilt is often between 5 and 40 degrees. Solar Energy Systems tilt can be manually or automatically adjusted throughout the year. Alternatively, fixed-tilt systems remain at a static tilt year-round.

1. **Applicability:**
	1. Notwithstanding the provisions of 1 MRSA § 302 or any other law to the contrary, the requirements of this Ordinance shall apply to all Roof-Mounted and Ground-Mounted Solar Energy Systems modified or installed in the Town of Surry after the date of its enactment.
	2. All Solar Energy Systems shall be designed, installed, maintained, and decommissioned in accordance with all applicable Federal, State and Local codes, regulations, and standards, including the requirements of Ordinance.
	3. Any upgrade, modification or structural change that alters the size, placement or output of an existing Solar Energy System shall comply with all provisions of this Ordinance.
	4. With regard to this Ordinance, the Town of Surry’s Land Use Districts and Shoreland Zones are mapped and categorized as follows and are delineated on the Town’s Official Zoning Map. Roof-Mounted SES, Small-Scale SES, Medium-Scale SES, and Large-Scale SES, are either allowed (YES), prohibited (NO), or allowed with permit issued by the Planning Board (PB) in the Land Use, as indicated in the table below, in the designated district.

|  |  |  |
| --- | --- | --- |
| **LAND USES** | **LAND USE DISTRICTS** | **SHORELAND ZONES** |
|  | **VL** | **RC** | **RU** | **RR** | **SP** | **RP** | **LR** | **CFMA** |
|  |  |  |  |   |  |  |  |   |
| **Roof-Mounted SES** | YES | YES | YES | YES | PB | PB | PB | YES |
| **Small-Scale SES** | PB13 | PB13 | PB13 | PB13 | PB13 | NO | PB13 | NO |
| **Medium-Scale SES** | NO | NO | NO | NO | NO | NO | NO | NO |
| **Large-Scale SES** | NO | NO | NO | NO | NO | NO | NO | NO |
|  |  |  |  |  |  |  |  |  |
|  |  |  | PB-PLANNING BOARD  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| 13 Subject to Site Plan Review. See specific prohibited commercial and individual uses…  |  |
| for this Zone or District in Chapter 3, Unified Development Ordinance, (Land Use Districts, Zones and Requirements) - from the Surry Code of Ordinances (SCO)  |  |  |
|  |  |  |  |  |  |

1. **General Standards and Applicability:**
	1. A Solar Energy System or device may only be installed or operated in the Town of Surry provided it is in full compliance with this Ordinance.
	2. Permitting shall be determined by i) Land Use District / Zone within the Town of Surry, ii) type of Solar Energy System, and iii) proposed size. The Town of Surry has designated the proper permitting process for each Solar Energy System in the above matrix. *(The above matrix will be incorporated into Table 1, Land Use Table of the Unified Development Ordinance (UDO), Chapter 3 of the Surry Code of Ordinances.)*
	3. All Solar Energy Systems, both Roof-Mounted and Ground-Mounted, are subject to the Dimensional Standards of Section 5 and the Performance Standards outlined in Section 6 below in this Ordinance.
2. **Dimensional Standards:**
	1. **Solar Energy Systems, Roof-Mounted**
		1. **Height:** In all Land Use Districts and Shoreland Zones, such systems shall conform to the maximum building height requirements of the zoning district in which they are located. See SCO - Chapter 3, Land Use Table 2, UDO Dimensional Requirements.
	2. **Solar Energy Systems, Ground-Mounted**

**i. Height:** Ground-Mounted Solar Energy Systems shall be limited to a maximum of twenty-two (22) feet in height. Height shall be measured from the lowest point of the structure above grade to the highest point of the structure when oriented at maximum Tilt.

**ii. Setbacks:**

1. With regard to any Medium- or Large-Scale SES, the minimum setbacks shall be one-hundred (100) feet on the front, rear and all sides. Small scale SES shall conform to the requirements of the Land Use District or Shoreland Zone in which the SES is located. See SCO Chapter 3, Land Use Table 2, UDO Dimensional Requirements.
2. Screening - Lots on which Large-Scale and Medium-Scale Solar Energy Systems are located shall utilize buffers / screening from roads and residences by plantings, berms, and natural topographical features. Large- and Medium-Scale SES shall be screened from view to the greatest extent practical of any adjacent property that is residentially zoned or used for residential purposes, as well as from any public way. 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.
3. At the discretion of the Planning Board, for Large- and Medium- scale SES, additional setbacks and vegetative buffering may be required to mitigate visual and functional impacts.
4. **Performance and Installation Standards:**

**a. Roof-Mounted and Small-Scale SES:** All Roof-Mounted and Small-Scale Solar Energy Systems must conform with the following standards:

i. Roof-Mounted Solar Energy Systems and related equipment are permitted by right unless they are determined by either the Code Enforcement Officer (CEO) and or the Fire Chief to present one or more unreasonable safety risks including, but not limited to, the following:

a) Weight load;

b) Wind Resistance;

c) Ingress or egress to a property, structure, or building in the event of fire or other emergency; and

d) Proximity of Ground-Mounted system relative to

 buildings;

The CEO may, at his/her discretion, require an engineer to certify the roof capable of handling the Roof-Mounted SES

ii. All Solar Energy Systems shall be installed in compliance with the manufacturer’s instructions and the Photovoltaic Systems Standards of the latest edition of the National Fire Protection Association (NFPA1), International Building Code (IBC ), and National Electric Code (NEC) .

iii. All Electrical Equipment and wiring shall be installed in compliance with the manufacturer’s instructions and the National Electric Code (NFPA70), IBC and NEC

iv. Prior to the startup of operation of any new Solar Energy System, all electrical connections must be inspected and approved by the Code Enforcement Officer (CEO) and a third-party electrical inspector designated by the CEO. Such inspection and approval process shall be paid for by the Applicant.

**b. Medium-Scale and Large-Scale Ground-Mounted SES:** In addition to the standards in Section 6 a. above, Medium-Scale and Large-Scale ground-mounted solar energy systems shall also comply with the following:

1. Utility Connections:

a) Utility connections shall be underground wherever practicable.

**c. Safety:**

i. The Solar Energy System Applicant shall provide a copy of the Site Plan and Application to the Code Enforcement Officer (CEO). Where applicable, the Planning Board’s approval or denial of the Application shall include a review of the safety of the proposed system.

ii. The street number shall be posted at the edge of the nearest road entrance. Numbers and letters shall be white reflective with blue reflective background and a white reflective trim. Font shall not be cursive. Street number shall be nine (9) inches on eleven (11) inch background. Background width shall be no less than twelve (12) inches

iii. Each fence opening shall be marked with a letter designation A, B, C, D, etc. in a counter clock wise fashion complying with the requirements above.

**d. Visual Impact:**i.Reasonable efforts, as determined by the Planning Board, shall be made to minimize undue visual impacts by preserving native vegetation, screening abutting properties, or other appropriate measures, including adherence to height standards and setback requirements.

**e. Land Clearing, Soil Erosion, and Habitat Impacts:**

i. 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.

ii. Ground-Mounted facilities shall minimize mowing to the extent practicable.

iii. Removal of mature trees shall be avoided to the extent possible.

iv. Native pollinator-friendly seed mixtures shall be used to the extent possible.

v. Lighting shall be only that which is necessary for safety or operational purposes. All lighting must be downward facing, shielded from other properties and no more than 20 foot candles for the entire project. Glare shall be avoided and light trespass minimized to less than 0.1 foot-candles.

vi. Herbicide, fungicide, and pesticide use is prohibited.

vii. No prime agricultural soil or significant amount of topsoil shall be removed from the site for installation of the Solar Energy System.

**f. Fencing:**

i. Where fencing is used, fences shall be elevated by a minimum of six (6) inches to allow for passage of small terrestrial animals.

**g. Removal:**

i. Solar Energy Systems that have reached the end of their useful life or that have been abandoned consistent with this Ordinance shall be removed. The owner or operator shall physically remove the installation no more than one hundred and fifty (150) days after the date of discontinued operations. The owner or operator shall notify the Town of Surry Planning Board by certified mail of the proposed date of discontinued operations and plans for removal.

ii. Removal shall consist of:

* + - * 1. Physical removal of all Solar Energy Systems, structures, equipment, security barriers, and transmission lines from the site. Remediation of the soil to thirty-six inches (3 feet) if contamination is found.
				2. Disposal of all solid and hazardous waste in accordance with local, state and federal waste disposal regulations.
				3. Stabilization or re-vegetation of the site to minimize erosion. Native, pollinator-friendly seed mixtures shall be used to the maximum extent possible.

**h. Abandonment:**

* + 1. Absent notice of a proposed date of decommissioning or written notice of extenuating circumstances, a Medium- or Large-Scale Ground-Mounted Solar Energy System shall be considered abandoned when it fails to operate for more than one hundred and fifty (150) days. A Surety Bond is required at the time of Planning Board review of a Site Plan Application for the assumption of any debt, default, non-compliance with State and Federal laws or local ordinances, or failure of the Array falls to the principal (contractor/developer/solar company) and not the obligor (owner). Any SES greater than three (3) or more acres must also comply with 35-A M.R.S.A § 3491 through 3496.
		At the time of Planning Board review of a Site Plan Application and permit, the Applicant for a Medium or Large-Scale Solar Energy System shall identify how it shall provide a performance guarantee payable to the benefit of the Town of Surry for all costs associated with the removal of an approved Solar Energy System that has been abandoned. The performance guarantee shall be equal to one hundred fifty (150) percent of the estimated cost of removal. The performance guarantee can be in the form of a Solar Contractor Surety Bond or Solar Decommissioning Bond and shall be acceptable to the Town, as determined exclusively by the Planning Board and legal counsel for the Town. If the SES is three (3) acres or more the Town will accept a Solar Contractor Surety Bond or Solar Decommissioning Bond to the benefit of the Maine Department of Environmental Protection for 150 percent of the estimated removal cost. The financial guarantee shall include provisions granting and guaranteeing the Town the authority to access the funds and property to perform the decommissioning if the facility is abandoned and the owner or operator fails to meet their obligations to remove the Solar Energy System. The applicant shall provide the Town the identified performance guarantees prior to the issuance of any permits by the CEO for the Solar Energy System. Financial assurances shall be updated fifteen (15) years after approval of the plan and no less frequently than every five (5) years thereafter. Updates must be submitted to the CEO on or before December 31st of the year in which the updates are required.
		2. The owners or operators shall be responsible for notifying the Town (the CEO, Planning Board Chair and Select Board separately) in writing if the performance guarantee is revoked, and in such cases, shall provide the Town a replacement guarantee that is found acceptable by the Planning Board and legal counsel within ninety (90) days, or the owner’s or operator’s permit to operate the system shall be revoked. The owner or operator shall be responsible to pay the Town’s legal fees.
		3. If the owner or operator of the Solar Energy System fails to remove the installation within one hundred fifty (150) days of abandonment or the proposed date of decommissioning, the Town of Surry or the obligee retains the right to use all available means to cause an abandoned, hazardous, or decommissioned Medium- and Large-Scale Solar Energy System to be removed.
		4. If an owner or operator successfully removes a Medium- or Large-Scale Solar Energy System in accordance with the requirements of this Section, and the Town’s CEO finds that removal was successfully completed, the owner or operator may apply to the Planning Board for release of the performance guarantee identified in this Section. The Town shall not unreasonably withhold the release of a performance guarantee post determination by the Code Enforcement Officer that an owner or operator has successfully removed a Solar Energy System.

**i. Accessory Use:** Medium and Large-Scale Solar Energy Systems shall not be considered an Accessory Use.

**j. Operations and Maintenance Plan:**

i.A project proponent shall, as part of an Application, submit a plan for the operation and maintenance of the Medium- or Large-Scale Solar Energy System, which shall include measures for safe access to the installation as well as other general procedures for operational maintenance of the installation.

**k. Signage and Emergency Access:**

i. A sign shall be required to identify the owner and provide a 24-hour emergency contact phone number. A Knox-Box shall be placed at the main gate opening to the fence for emergency access by first responders. All gates shall be keyed to allow access via the Knox-Box key.

**l. Emergency Services:**

* + - * 1. The Medium- or Large-Scale Solar Energy System owner or operator shall provide a copy of the project summary electrical schematic, and Site Plan to the Code Enforcement Officer and Fire Department.
				2. Upon Request by the Town, the owner or operator shall cooperate with all local public safety officials to create an emergency response plan.
				3. All means of shutting down the system shall be clearly marked.
				4. The owner or operator shall provide the Code Enforcement Officer with the name and contact information of a responsible person for public inquiries throughout the life of the installation.
1. **Site Plan Application and Review:**

Please refer to the Town of Surry Code of Ordinances in Chapter 3, IV. Site Plan Review Standards, incorporated herein by reference.

No permits, road openings, or street names will be issued by the Town of Surry until the review process is complete and the Planning Board or CEO has issued a permit under this Ordinance.

1. Applicability
	1. Roof-mounted systems are not subject to Site Plan Review, unless they exceed 100 KW DC.
	2. Small-Scale Ground-Mounted Solar Energy Systems are subject to Site Plan Review if they are in a Shoreland Zone or are within two hundred fifty feet of a Shoreland Zone.
	3. Medium-Scale and Large-Scale Solar Energy Systems are subject to Site Plan Review.
2. In addition to the Town of Surry’s Site Plan Review and Application requirements in the Surry Code of Ordinances, the Applicant shall submit the following supplemental information as part of a Site Plan Application.

A Site Plan, prepared by a Maine licensed engineer 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 System showing the proposed layout of the system, any potential shading from nearby structures or properties, the distance between the proposed Solar Collector and all property lines and existing on-site buildings and structures, and the tallest height of the Solar Collector Array;
4. Documentation of all major system components to be used; including the panels, mounting systems, inverters, Electrical Equipment, etc.;
5. Name, address and contact information of proposed system installer, the project proponent, project proponent agent, and all co-proponents or property owners if any; and
6. A one- or three-line electrical diagram detailing the solar photovoltaic installation, associated components, and electrical interconnection methods.
7. Location of important plants and animal habitats identified by the Maine Department of Inland Fisheries and Wildlife or by the Town of Surry, or rare and irreplaceable natural communities and rare plant habitat as identified by the Maine Natural Areas Program.
8. Location of wetlands and waterbodies.
9. Location of floodplains.
10. Storm water control plans.
11. Locations of local or National Historic Districts and resources.
12. A public outreach plan, including how the project proponent will inform abutters within 1000 feet and the community.
13. A decommissioning plan with a performance guarantee (Refer to Section 6. g. and h., in this Ordinance)
14. An Operation and Maintenance Plan.
15. Waste Stream Management Plan (including recycling percentages)
16. Utility Notification - grid intertied Solar Energy Systems must show evidence to the Planning Board that the applicant has an agreement with the utility to accept power. Off-grid systems are exempt from this requirement.
17. Any development that will cause damage to a Town owned or Town maintained travel way will require a bond to ensure the repair of any damage to roadway to the satisfaction of a construction consultant hired by the Town and paid for by the Applicant.

If alterations to a public way are needed for a project, the cost of all alterations are at the expense of the Applicant. The alterations must be approved by a construction consultant hired by the Town and paid for by the Applicant.

1. **Review Procedure and Process:**

Please refer to Surry Code of Ordinances, Chapters 1 - 3, incorporated herein by reference.

1. **Fees:** The fees for review of solar energy systems shall be as noted below.

Roof-Mounted SES

See current Town of Surry Building/Use Permit Fee Schedule

Small-Scale Ground-Mounted SES

See current Town of Surry Building/Use Permit Fee Schedule

Medium-Scale Ground-Mounted SES See current Town of Surry Building/Use Permit Fee Schedule for Commercial/Industrial Permits

Large-Scale Ground-Mounted SES See current Town of Surry Building/Use Permit Fee Schedule for Commercial/Industrial Permits

For all projects requiring Planning Board action a six-hundred dollar ($600.00) deposit is required at the time of Application for newspaper notices. Notices shall also be mailed to all property owners within 500 feet of the property lines of the proposed medium or large scale SES. Upon completion of the approval process, any remaining funds will be returned to the Applicant.

There will be two (2) public notices in the local paper before any hearing on any Solar Energy System review that requires Planning Board approval.

1. **Legal Action and Violations:**
	1. When any violation of any provision of this Ordinance shall be found to exist, the Code Enforcement Officer is hereby authorized and directed to institute any and all actions and proceedings, either legal or equitable, that may be appropriate or necessary to enforce the provisions of this Ordinance in the name of the Town of Surry. This section shall not prevent any person entitled to equitable relief from enjoining any act contrary to the provisions of this Ordinance.
	2. Any person, firm, or corporation, being the owner of or having control over the use of any building or land or part thereof, who violates the provisions of this Ordinance shall be guilty of a civil violation and, upon judicial determination of such violation, shall be fined in accordance with the following.

i. The minimum penalty for starting construction or undertaking a land use activity without a permit or with an expired permit shall be two hundred fifty dollars ($250.00) and the maximum penalty shall be two thousand five hundred dollars ($2,500.00).

ii. The minimum penalty for any other violation of any aspect of this ordinance shall be two hundred dollars ($200.00) per violation per day, and a maximum penalty shall be two thousand five hundred dollars ($2,500.00).

* 1. All civil penalties imposed shall inure to the benefit of the Town of Surry. Each day a violation continues to exist after notification by the CEO by certified mail shall constitute a separate offense.