

**TOWN OF ANDOVER
SOLAR ENERGY SYSTEMS ORDINANCE**

Section I. Establishment & Purpose

With this ordinance the Town of Andover establishes the Solar Energy Systems Ordinance pursuant to Title 30-A M.R.S.A. Chapter 141-Sections 3001-3006 Home Rule Authority, The purpose of this ordinance is to establish standards and requirements for solar energy systems.

Section II. Standards for Roof-Mounted and Small-Scale Ground Mounted Solar Energy Systems.

Roof mounted and building mounted solar energy systems and equipment are permitted by right and shall be allowed unless they are determined by the Code Enforcement Officer, with input from the Fire Chief, to present one or more unreasonable safety risks, including, but not limited to, the following:

- (1) Weight load;
- (2) Wind resistance;
- (3) Ingress or egress in the event of fire or other emergency; or
- (4) Proximity of a ground-mounted system relative to buildings.

All solar energy system installations shall be installed in compliance with the photovoltaic systems standards of the latest edition of the National Fire Protection Association (NFPA 1).

All wiring shall be installed in compliance with the photovoltaic systems standards of the latest edition of the National Electric Code (NFPA 70) [hereinafter NEC] as adopted by the State of Maine.

Prior to operation, electrical connections must be inspected and approved by the State Electrical Inspector.

Section III. Height Requirements for Roof-Mounted Solar Energy Systems.

Systems cannot be mounted higher than 2 feet than the roof pitch on any residential structure with a pitched roof and cannot exceed 4 feet than the roof pitch on any non-residential structure with a pitched roof. A system cannot be higher than 4 feet above the structure on a flat roof.

Section IV. Additional Standards for Medium- and Large-Scale Ground-Mounted Solar Energy Systems.

In addition to the standards in Section 1, medium- and large-scale ground-mounted solar energy systems shall comply with the following:

- (1) **Utility Connections:** Overhead or pole-mounted electrical wires shall be avoided to the extent possible within the facility.

- (2) **Safety:** The solar energy system owner or project proponent shall provide a copy of the site plan review application to the Planning Board for approval and to the Code Enforcement Officer and the Fire Chief for review and comment. The Code Enforcement and the Fire Chief shall base any recommendations for approval or denial of the application by the Planning Board upon review of the fire safety of the proposed system.
- (3) **Certification of the EPA "Toxicity Characterization Leaching Procedure (TCLP):** Shall be provided along with proof that all electrical equipment used at the facility must be UL listed. No substitutions of other certifications for the UL listing or the TCLP shall be permitted.
- (4) **Visual Impact:** 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 and to reduce glare in the direction of abutting or neighboring properties or roads and streets.
- (5) **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.
- (6) **Setbacks:** Systems must be setback a minimum of 50 feet from any right of way or public road and 15 feet from any side property line.
- (7) **Fencing:** Fencing shall be installed as required by the NEC for ground-mounted solar energy systems in accordance with the size of the solar energy system. To allow for wildlife passage, fences should be elevated by a minimum of 5 inches.
- (8) **Signage:** A sign shall be placed on the solar energy system to identify the owner and provide a 24-hour emergency contact phone number and equipment specification information. Said information shall be depicted within an area no more than eight [8] square feet. As required by the NEC, disconnect and other emergency shutoff information shall be clearly displayed on a light reflective surface. A clearly visible warning sign concerning voltage shall be placed at the base of all pad-mounted transformers and substations.
- (9) **Roads:** A Mid- or Large-scale ground-mounted solar energy system owner or operator shall maintain a road for year round access to the facility to accommodate emergency vehicles.

- (10) **Removal:** Solar energy systems that have reached the end of their useful life or have been abandoned consistent with this ordinance shall be removed. The owner or operator shall physically remove the installation no more than 365 days after the date of discontinued operations. The owner or operator shall notify separately the Select Board, Planning Board and the Code Enforcement Officer by certified mail of the proposed date of discontinued operations.

Abandonment: Absent notice of a proposed date of decommissioning or written notice of extenuating circumstances, a medium-scale or large-scale ground-mounted solar energy system shall be considered abandoned when it fails to operate for more than one year. If the owner or operator of the solar energy system fails to remove the installation within 365 days of abandonment or the proposed date of decommissioning, the Town retains the right to use all available means to cause an abandoned, hazardous or decommissioned medium-scale or large-scale ground-mounted solar energy system to be removed. Annual inspections by the Town will continue at the owner or operators cost until the site is removed and returned to its original state.

a. If the owner or operator of the solar energy system fails to remove the installation in accordance with the requirements of this Ordinance within 365 days of abandonment or the proposed date of decommissioning, the Town retains the right to use the performance guarantee identified in Section 5 (3) below, and all other means available to the Town to cause an abandoned, hazardous or decommissioned medium or large scale solar energy system to be removed.

b. If an owner or operator of the solar energy system successfully removes the solar energy system pursuant to the requirements of this Ordinance and the Code Enforcement Officer finds that the removal is in compliance, the owner or operator may apply to the Town for the release of the performance guarantee identified in Section 5 (3) below. The Town shall not unreasonably withhold the release of a performance guarantee after the Code Enforcement Officer certifies compliance with the removal requirements of this Ordinance.

Additional Standards for Large-Scale Solar Energy Systems. Large-scale ground-mounted solar energy systems shall not be considered accessory uses.

- (1) **Operations and Maintenance Plan:** The project proponent shall submit a plan for the operation and maintenance of the large-scale ground mounted solar energy system, which shall include measures for maintaining safe access to the installation as well as other general procedures for operational maintenance of the installation.
- (2) **Emergency Services:** The large-scale ground-mounted 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 Chief. Upon request, the owner or operator shall cooperate with the Code Enforcement and/or Fire Department in developing an emergency response plan. All means of shutting down the system shall be clearly marked. The owner or operator shall provide to the Code Enforcement Officer the name

and contact information of a responsible person for public inquiries throughout the life of the installation.

Section V. Site Plan Review.

- (1) **Roof-Mounted Solar Energy Systems and Small-Scale Ground-Mounted Solar Energy Systems.** Such systems are not subject to site plan review or Building Permit Application.
- (2) **Medium-Scale and Large-Scale Ground-Mounted Solar Energy Systems.** These systems are subject to Andover's Site Plan Review Ordinance and Building Permit Application.
- (3) **Application for Site Plan Review.** For medium- and large-scale ground-mounted solar energy systems: In addition to the requirements of Andover's Site Plan Review Ordinance, the site plan application shall include the following supplemental information:

a. A site plan showing:

- i. Property lines and physical features, including roads and setbacks, for the project site;
- ii. Proposed changes to the landscape of the site, grading, vegetation clearing and planting, exterior lighting, screening vegetation and/or structures and erosion control plan;
- iii. Blueprints or drawings of the solar energy system showing the proposed layout of the system, any potential shading from nearby structures, the distance between the proposed solar collector and all property lines and existing on-site buildings and structures, and the tallest finished height of the solar collector;
- iv. A preliminary equipment specification sheet that documents all proposed solar panels, significant components, mounting systems and inverters that are to be installed. A final equipment specification sheet shall be submitted prior to the issuance of building permit.
- v. Name, address, and contact information of the proposed system installer, the project proponent, project proponent agent, and all co-proponents or property owners, if any; and.

- vi. A preliminary equipment specification sheet that documents all proposed solar panels, significant components, mounting systems and inverters that are to be installed, including a one or three-line electrical diagram detailing the solar photovoltaic installation, associated components and electrical interconnection methods. A final equipment specification sheet shall be submitted prior to the issuance of building permit.
- vii. Name, address, and contact information of proposed or potential system installer and the owner and/or operator of the solar energy system. Such information of the final system installer shall be submitted prior to the issuance of building permit.
- viii. Name, address, phone number, and signature of the project applicant, as well as all the property owners, demonstrating their consent to the application and the use of the property for the solar energy system.
- ix. Property Operation and Maintenance Plan. Such plan shall describe continuing photovoltaic maintenance and property upkeep, such as mowing, trimming vegetation and road maintenance, to include snow removal.
- x. Locations of important plant and animal habitats identified by the Maine Department of Inland Fisheries and Wildlife, if any.
- xi. Locations of wetlands and waterbodies, if any.
- xii. Locations of shoreland zones, floodplains or well-head protection areas, if any.
- xiii. Fees for the Solar Energy System Building Permit as established by the Select Board.

b. Decommissioning Plan showing:

- i. How physical removal of all solar energy systems, structures, equipment, security barriers and transmission lines from the site will be accomplished
- ii. How disposal of all solid and hazardous waste in accordance with local, state, and federal waste disposal regulations will be performed
- iii. How stabilization or re-vegetation of the site as necessary to minimize erosion. The Applicant should include restoration of native, pollinator-friendly seed mixtures which shall be used to the maximum extent possible in re-vegetation.
- iv. Estimate of costs for the decommissioning of the solar energy system with detail of how the estimate of these costs were derived, including the data which was the basis for the estimate.
- v. How decommissioning will be paid for. A performance guarantee level set at

100% shall be paid into an escrow method using a figure to be recalculated every five (5) years by a Licensed Professional Engineer holding such licensure in Maine, the cost of which shall be borne by the owners. The applicant, owner, or operator will provide a performance guarantee paid to the Town and will ensure continuous coverage by a performance guarantee throughout the life of the project up to and including the decommissioning process, in an amount equal to the estimated cost of removal with salvage factor figured in. The performance guarantee can be in the form of performance bond, or escrow account established with the Town or other form of financial assistance as may be deemed acceptable to the Town as determined by the Planning Board and legal counsel for the Town. The financial guarantee shall include a signed consent provision from the Applicant, owners or operators granting and guaranteeing the Town the authority to access the funds and property and perform decommissioning if the facility is abandoned and the owner or operator fails to meet their obligations to remove the solar energy system. The Applicant, owner or operator shall provide the Town the identified performance guarantee prior to the issuance of a building permit/site plan review permit. Every five (5) years after the date of issuance of the Building Permit the Applicant, owner or operator is responsible for notifying the Select Board in writing when the performance guarantee is recalculated. The owner or operator is also responsible for notifying the Town in writing if the performance guarantee is revoked, and in such cases, shall provide the Town with a replacement performance guarantee, within 30 days which must be approved by legal counsel for the Town or the owner's or operator's permit to operate the system will be revoked.

Section VI. License and Inspection.

Initial Operation License. Prior to operation, the owner or operator of a Medium-Scale and Large Scale Solar Energy System must obtain an Operation License from the Town and pay the fee for same as established by the Select Board. The solar energy system will be inspected by the Code Enforcement Officer to ascertain compliance with the requirements of this Ordinance and the requirements of any permit issued before the Solar Energy System Operation License will be issued by the Town. The operator or owner must provide proof to the Code Enforcement Officer of current required state or federal licenses or permits.

(2) Annual Renewal of Operation License. The operator or owner of a Medium-Scale or Large-Scale Solar Energy System must reapply annually for renewal of its Operation License. An inspection by the Code Enforcement Officer and payment by the owner or operator of the annual fee as established by the Select Board is required for the renewal of the Operator License. The operator or owner must provide to the Code Enforcement Officer proof of any and all state or federal licenses or permits that are required annually. Inspections shall include, but are not limited to the following areas of review.

- a. Spot checking of solar panels for cracking or evidence of water infiltration within the panels. Any panel identified as deficient or defective by the Code Enforcement Officer shall be removed and/or replaced by the solar energy system owner or operator within 24 hours

- b. Compliant perimeter fencing in good repair.
- c. Proper grounding of equipment.
- d. Proper signage.
- e. Proper installation and maintenance of all safety systems.
- f. Proper control of vegetation.
- g. Proper maintenance of roads within solar energy system.

Emergency inspections will be done at no cost to the owner or operator in the event of an Act of God or other disaster has occurred in which could be reasonably believed to have damaged or cracked any solar panels.

Any solar energy system owner and/or operator shall incur a fine of \$300 per day for failing to correct any deficiencies identified by the Code Enforcement Officer within the time frame established by the Code Enforcement Officer. All such notifications on deficiencies shall be in writing and provided to the solar energy system owner and/or operator at the address provided in the annual renewal license application submitted to the Town.

Section VII. Definitions.

Electrical Equipment. Any device associated with a solar energy system, such as an outdoor electrical unit/control box, that transfers the 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).

Height of Building. The vertical measurement from grade to the highest point of the building, except that utility structures such as chimneys, TV antennae, HVAC systems, and roof-mounted solar energy systems shall not be included in this measurement, nor shall any construction whose sole function is to house or conceal such structures.

Mounting. The manner in which a solar PV system is affixed to the roof or 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 Direct Current (DC).

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. 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. It may be roof-mounted or ground-mounted, and may be of any size as follows:

Small Solar Energy System is one whose physical size based on total airspace projected over a roof or the ground is less than 15,000 square feet (approximately one-third of an acre);

Medium Solar Energy System is one whose physical size based on total airspace projected over a roof or the ground is equal to or greater than 15,000 square feet but less than 871,200 square feet (20 acres) or 9.0 KW/MW; DC and

Large Solar Energy System is one whose physical size based on total airspace projected over a roof or the ground is equal to or greater than 871,200 square feet (20 acres).

Solar Energy System, Ground-Mounted. A 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, Roof-Mounted. A Solar Energy System that is mounted on the roof of a building or structure; may be of any size (small-, medium- or large-scale).

Solar Photovoltaic (Solar PV) System. A solar energy system consisting of photovoltaic cells, made with semiconducting materials, that produces electricity (in the form of direct current (DC)) when they are exposed to sunlight. A typical PV system consists of PV panels (or modules) that combine to form an array; other system components may include mounting racks and hardware, wiring for electrical connections, power conditioning equipment, such as an inverter and/or batteries.

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 can be manually or automatically adjusted throughout the year. Alternatively, fixed-tilt systems remain at a static tilt year-round.

Section VIII. Enforcement.

Code Enforcement Officer

It shall be the duty of the Code Enforcement Officer to enforce the provision of this Ordinance. If the Code Enforcement Officer shall find that any provision of this ordinance is being violated, he

shall notify in writing the person responsible for such violation, indicating the nature of the violation and ordering the action necessary to correct it. A copy of such notices shall be forwarded to the Town Planning Board and the Municipal Officers. A copy of such notice shall be maintained as a permanent record.

Legal Actions

When the above action does not result in the correction or abatement of the violation or nuisance condition, the Board of Selectmen, upon notice from the Code Enforcement Officer and/or the Planning Board are hereby authorized and directed to institute any and all actions and proceedings, either legal or equitable, including seeking injunctions of violations and the imposition of fines, that may be appropriate or necessary to enforce the provisions of this Ordinance in the name of the municipality.

Fines

Any person who continues to violate any provision of this Ordinance after receiving notice of such violation shall be guilty of a misdemeanor subject to a fine of up to \$100.00 for each violation up to a maximum of \$5000. Each day such a violation is continued is a separate offense.

Section IX.. Amendments

This ordinance may be amended by majority vote at Town Meeting.

Section X. Validity and Severability

Should any section or provision of this Ordinance be declared by the courts to be invalid, such decision shall not invalidate any other section or provision of this ordinance.

Section XI.

Where the provisions of this ordinance conflict with the provisions of other ordinances, the provisions of this ordinance shall prevail.

Section XII Effective Date

Notwithstanding the provisions of 1 M.R.S. § 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 after the date of its enactment.

The Ordinance shall become effective when enacted by the voters of the Town of Andover.

**SOLAR ENERGY SYSTEMS ORDINANCE
FOR THE
TOWN OF ANDOVER, MAINE**

Given unto our hands at said Andover, Maine this 29 day of June, 2021.

Board of Selectmen:

Brian Mills
Printed Name

Brian Mills
Signature

Joseph R. Luce
Printed Name

[Signature]
Signature

MARK THURSTON
Printed Name

[Signature]
Signature

ENACTED: 6-26-2021 @ T.M.
Date

EFFECTIVE: 6-29-2021
Date

CERTIFIED BY: Melinda Averill
Signature

MELINDA AVERILL
Printed Name

Clerk
Title

Affix Seal

