## Fryeburg Land Use Ordinance Section 17 AA. Solar Energy Systems

## 1. Purposes:

- a. Solar energy is a local, renewable energy resource that can reduce fossil fuel dependence and emissions. Energy generated from Solar Energy Systems can be used to offset energy demand on the utility grid, with benefits for system owners and electricity consumers.
- b. The use of solar energy for the purpose of providing electricity and energy for heating and or cooling is an important part of the Town of Fryeburg's sustainability goals.
- c. The standards herein enable the accommodation of Solar Energy Systems in appropriate locations and in a manner that protects the public health, safety, and welfare while still allowing the quiet enjoyment of property and supporting the goals of the Comprehensive Plan, including goals related to natural resources and historical and archeological preservation.
- 2. Applicability: Notwithstanding the provisions of 1 M.R.S.A. Section 302 or any other law to the contrary, the requirements of this Section 17.AA shall apply to (a) all Roof-Mounted Solar Energy Systems installed on or any time after the date that the legislative body of the Town adopted this Section 17.AA, and (b) all proceedings and applications for the construction or installation of any other Solar Energy Systems (including any expansion, upgrade, modification, or structural change that materially alters the size, placement, or output of such systems) that are pending before any municipal reviewing authority on or any time after the date that the legislative body of the Town adopted this Section 17.AA.

## 3. Permitting Requirements:

- a. Roof-Mounted Solar Energy Systems and Small-Scale Solar Energy Systems must comply with the Dimensional Requirements applicable to structures within the zoning district in which such systems are to be located and the standards in Section 16 of this Ordinance. Small-Scale Solar Energy Systems must also comply with the standards in Section 17.AA.5 of this Ordinance. Roof-Mounted Solar Energy Systems and Small-Scale Solar Energy Systems must obtain a Building Permit from the Code Enforcement Officer in accordance with the procedures set forth in Section 2.C of this Ordinance.
- b. Medium-Scale Solar Energy Systems and Large-Scale Solar Energy Systems must obtain Land Use Authorization from the Planning Board in accordance with the procedures set forth in Section 2.F of this Ordinance.
- 4. Additional Application Submissions for Medium-Scale Solar Energy Systems and Large-Scale Solar Energy Systems:

An application for Land Use Authorization for a Medium-Scale Solar Energy System or a Large-Scale Solar Energy System must be submitted in accordance with Section 2.D of this Ordinance. In addition to the submission requirements in Section 2.D, the applicant must submit the following:

- a. Written confirmation from the public utility to which the Solar Energy System will be connected confirming that the solar operator has conditional or final approval to interconnect the Solar Energy System to the utility grid.
- b. Evidence of financial capacity to construct, operate, and decommission the Solar Energy System.
- c. Erosion and sedimentation control narrative and plans with details.
- d. Site plans showing all proposed construction and alteration of the project site, including changes to the landscape of the Solar Land Area, filling, grading, earthmoving, vegetation clearing and planting, screening, fencing, Solar Energy System components, utilities (above and/or below ground), and all other aspects of the project.
- e. Site plans showing water bodies, wetlands, flood hazard areas, and vernal pools.
- f. A description of the major components of the Solar Energy System (including arrays) proposed to be used, including manufacturers' specifications and cut sheets if available.
- g. A landscaping plan, prepared by a licensed forester, landscape architect, or arborist, demonstrating compliance with all applicable landscaping and vegetated buffering requirements. At minimum, the landscaping plan must specify the locations, elevations, and height above finished grade of all vegetation, berms and plantings, and must identify the plant species and other materials that will comprise the elements used to establish any vegetated buffers and substantially screen the Solar Energy System from view from abutting residential properties, public roads, and Public Vantage Points.
- h. A long-term operations and maintenance plan providing for ongoing monitoring and inspections of all site improvements. The plan must provide a method for maintaining sufficient financial resources for performing ongoing maintenance and repair of the Solar Energy System.
- i. A proposed decommissioning plan for the removal of the Solar Energy System, disposal of system components, and stabilization of the site, which meets the requirements in Section 17.AA.8 of this Ordinance, and a written statement of the applicant's intent concerning the following:

- i. Physical removal of any Solar Energy System components, structures, foundations, supports, fencing, or security barriers from the site.
- ii. Disposal of all solid and hazardous waste in accordance with local, state, and federal waste disposal laws and rules.
- iii. Stabilization or re-vegetation of the site as necessary to minimize erosion and return the site to substantially its pre-construction state.
- j. A description of any proposed dual-use or co-location of the property, including but not limited to agrivoltaics. If no dual-use is proposed or intended on the property, an explanation as to why such dual-use or co-location is not practicable.
- k. A visual impact assessment prepared by a landscape architect or other professional with expertise in evaluating visual impacts, which identifies the visual impacts of the Solar Energy System on any Public Vantage Point within a one-mile radius of the project area, and on abutting properties. At minimum, the assessment must include a line-of-sight profile analysis that illustrates what is visible and what is obstructed along a straight line running from the Solar Energy System and each Public Vantage Point. The Planning Board may require additional visual impact assessments, including digital viewshed maps, if it determines in its sole discretion that such assessments are necessary for the Planning Board to evaluate the Solar Energy System's compliance with the scenic impact standards in Section 17.AA.6.f of this Ordinance.
- 5. Additional Standards for Small-Scale, Medium-Scale, and Large-Scale Solar Energy Systems:

In addition to the standards in Section 16, a Small-Scale, Medium-Scale, or Large-Scale Solar Energy System must comply with the following standards:

- a. The Solar Energy System shall be less than 25 feet in Height.
- b. The Solar Energy System shall be operated and located such that no disruptive electromagnetic or radio frequency interference with signal transmission or reception is caused beyond the property lines of the site.
- c. The Solar Energy System shall be located and designed to avoid, minimize, or mitigate any glare onto abutting properties or roadways.
- 6. Additional Standards for Medium-Scale and Large-Scale Solar Energy Systems:

In addition to the standards in Section 16 and Section 17.AA.5, a Medium-Scale or Large-Scale Solar Energy System must comply with the following standards:

a. Minimum Setbacks: The following minimum setback requirements must be met, regardless of the zoning district in which the Solar Energy System is located, unless

the minimum setback requirement in the applicable zoning district is more restrictive, in which case the more restrictive requirement shall apply:

Front Lot Line 75 feet
Side and Rear Lot Line 75 feet
Street Right-of-Way 100 feet

- b. Wildlife Habitat: The Solar Energy System shall have no undue adverse effect on any portion of the property designated by the Maine Department of Inland Fisheries and Wildlife as Rare, Threatened, or Endangered Wildlife, Essential Wildlife Habitat, or Significant Wildlife Habitat. The applicant shall assess the potential impacts of the Solar Energy System on any such designated species or habitat, including any adjacent areas that are important to the maintenance of the affected species or habitat, and shall take measures to avoid, minimize, or mitigate impacts of the Solar Energy System on the habitat and the species that the area supports. The Planning Board may require the applicant to consult with the Maine Department of Inland Fisheries and Wildlife or a wildlife biologist preapproved by the Board in conducting such an assessment.
- c. Natural Areas: The Solar Energy System shall have no undue adverse effect on any portion of the property designated as a unique natural area or a Rare or Exemplary Plant and Natural Community in the Town's Comprehensive Plan or by the Maine Natural Areas Program. The applicant shall assess the potential impacts of the Solar Energy System on any such designated natural area or community, including any adjacent areas that are important to the maintenance of the affected area or community, and shall take measures to avoid, minimize, or mitigate impacts of the Solar Energy System on the natural area or community. The Planning Board may require the applicant to consult with the Maine Natural Areas Program in conducting such an assessment.
- d. Historic or Archaeological Resources: The Solar Energy System shall have no undue adverse effect on any portion of the property that has been identified as containing a significant historic or archaeological resource in the Town's Comprehensive Plan or on the National Register of Historic Places, or is considered by the Maine Historic Preservation Commission or other pertinent authority as likely to contain a significant historic or archaeological resource. The applicant shall assess the potential impacts of the Solar Energy System on any such resource, including any adjacent areas that are important to the preservation of the resource, and shall take measures to protect these resources, including but not limited to, modification of the proposed location and design of the Solar Energy System, timing of construction, limiting the extent of excavation, physical or legal protection, or by archaeological excavation or mitigation. The Planning Board may require the applicant to consult with the Maine Historic Preservation Commission in conducting such an assessment.
- e. Agricultural Resources: The Solar Energy System shall have no undue adverse effect on any portion of the property containing prime agricultural soils or soils of

statewide importance. The applicant shall assess the potential impacts of the Solar Energy System on any such soils, and shall take measures to avoid or minimize impacts to such soils. The Planning Board may require the applicant to consult with the Department of Agriculture, Conservation, and Forestry, Agricultural Resource Development Division, in conducting such an assessment. No topsoil or prime agricultural soil shall be removed from the site for installation of the Solar Energy System. All stockpiled topsoil shall be retained on site and reused in the landscaping plan for the site.

- f. Revegetation: Any disturbed ground cover on the site shall be revegetated with pollinator friendly, native, and non-invasive vegetation.
- g. The Solar Energy System must be located and designed for minimal visual impact on the surrounding area, particularly when viewed from abutting residential properties or any Public Vantage Point.
  - a. A vegetated buffer that is at least half the width of the minimum setback requirement in Section 17.AA.6.a of this Ordinance shall be maintained along any property boundary line of a Solar Energy System that abuts a residential dwelling or a public road, except where necessary to accommodate a driveway entrance to the site. Existing vegetation must be used to the greatest practical extent. If there is insufficient existing vegetation to create a vegetated buffer, the applicant shall plant and maintain native species of conifers and evergreens to adequately screen the Solar Energy System from view.
- h. Security Fencing: All components of the Solar Energy System, excepting overhead utility and communication lines and poles, shall be completely enclosed by a minimum 6-foot-high fence. The fence shall be elevated an minimum of 6 inches above the ground to accommodate crossings by small terrestrial animals. Functional alternatives to chain-link style fencing is encouraged.
- i. Utility Connections: All on-site utility transmission lines and piping associated with the Solar Energy System shall be placed underground to the greatest extent practicable. The Planning Board may waive this requirement if the applicant can demonstrate that satisfying this requirement is not practicable based on requirements of the utility provider or specific site conditions.
- j. Operations and Maintenance: The applicant must provide for the long-term operation of the Solar Energy System and maintenance of the Solar Land Area, including ensuring that vegetation buffers are maintained, inspections are performed as needed, and the site is accessible to emergency responders in the event of an emergency.
- 7. Additional Performance Standards for Large-Scale Solar Energy Facilities:
  - a. Maximum Solar Land Area: The Solar Land Area of a Solar Energy System must not exceed 50 acres.

- b. Greenhouse Gas Assessment: The Large-Scale Solar Energy System shall not result in a net increase of greenhouse gas emissions over a 20-year period. The Planning Board may request an independent greenhouse gas assessment including an analysis of on-site, upstream, and downstream emissions from the project.
- 8. Post-Approval Requirement for Medium-Scale Solar Energy Systems and Large-Scale Solar Energy Systems: Prior to the start of construction of a Medium-Scale Solar Energy System or Large-Scale Solar Energy System, the permit holder must submit to the Code Enforcement Officer a decommissioning plan and financial assurance approved by the Maine Department of Environmental Protection, in accordance with the requirements of 35-A M.R.S.A. Sections 3491-3496, as may be amended, for all costs associated with decommissioning the Solar Energy System.
- 9. Post-Construction Requirements for Medium-Scale Solar Energy Systems and Large-Scale Solar Energy Systems:

After completion of construction and prior to commercial operation of a permitted Medium-Scale Solar Energy System or Large-Scale Solar Energy System, the permit holder must:

- a. Submit to the Code Enforcement Officer as-built drawings prepared by a Maine licensed professional land surveyor or engineer. The as-built drawings shall include the actual locations of the Solar Energy System and its components, any structures and their components, above and underground utilities, roads, swales, ditches, detention/retention facilities, areas of filling and grading, vegetated buffers, fencing, land and landscaping alterations, and any other infrastructure and facilities, all as actually constructed on the site. The as-built drawings must be accompanied by a letter signed by the surveyor or engineer certifying that the Solar Energy System had been constructed in accordance with all Planning Board approvals, including any conditions of approval and any accompanying plans and specifications.
- d. Provide a written manual to the Fryeburg Fire Department and Code Enforcement Officer, which provides clear response information and instructions, including lock box details and disconnection locations necessary for a fire/emergency response at the site.

## **Definitions:**

**Building Height:** The vertical distance between the highest point of the roof (excluding any Roof-Mounted Solar Energy System) and the average original (prior to construction) grade of the ground adjoining the building. For ground-mounted Solar Energy Systems, the vertical distance between the highest point of any system component and the average original (prior to construction) grade of the ground at the point where the system component is fixed to the ground.

**Public Vantage Point:** Any great pond, river, navigable stream, publicly accessible land protected by a conservation easement, public park, public property used by the general public for outdoor recreation, or property listed on the National Register of Historic Places.

**Roof-Mounted Solar Energy System:** A Solar Energy System of any size that is mounted on the roof of a legally existing building or structure.

**Solar Energy System:** An assembly of solar collectors (including solar photovoltaic technology such as solar panels or arrays) and associated footings, supports, mounting and stabilization devices, inverters, electricity storage equipment, transmission and distribution lines, and related infrastructure, which collects, converts, and stores solar energy into electrical energy, heats water, or produces hot air or other similar function and delivers such energy, heat, or other similar function for on-site or remote consumption. A Solar Energy System may be roof-mounted or ground-mounted.

**Solar Energy System, Small-Scale:** A ground-mounted Solar Energy System that occupies less than 3 acres of Solar Land Area.

**Solar Energy System, Medium-Scale:** A ground-mounted Solar Energy System that occupies 3 or more acres but less than 20 acres of Solar Land Area.

**Solar Energy System, Large-Scale:** A ground-mounted Solar Energy System that occupies 20 or more acres, not to exceed 50 acres of Solar Land Area.

**Solar Land Area:** The aggregate area of land occupied by a Solar Energy System, including but not limited to: (i) solar panels and associated mounting hardware and equipment, (ii) all inter-panel space, and (iii) all impervious surfaces. Solar Land Area does not include parking lots, driveways, or roadways used to access the Solar Energy System or any areas adjacent to the Solar Energy System that are vegetated by grasses and must, by virtue of a legal instrument, be kept free of structures, trees, or shrubs in order for the Solar Energy System to collect sunlight.

17. UTILITY FACILITIES									
17.1	Small scale utility facility	P	P	P	P	P	P	P	P
17.2	Meduim scale utility facility	P	P	P	P	P	P	P	P
17.3	Large scale utility facility	P	P	P	P	P	P	P	P
17.4	Roof-mounted solar energy systems	A	A	A	A	A	A	A	A
17.5	Small scale ground mounted solar energy system	A	A	A	A	A	A	A	A
17.6	Medium scale ground mounted solar energy system	N	N	P	P	P	P	P	P
17.7	Large scale ground mounted solar energy system	N	N	N	N	N	N	N	P