

Section 1. Title

This Ordinance shall be known and may be cited as the "Town of Bremen Solar Ordinance".

Section 2. Purpose

The purpose of this Ordinance is to establish a municipal review procedure and performance standards for Solar Energy Systems (SES). These standards are intended to.

- A. Establish clear guidelines, standards and time frames for the Town to regulate Solar Energy Systems.
- B. Permit the town to fairly and responsibly protect public health, safety and welfare.
- C. Minimize any potential adverse effect of solar development on surrounding land use.
- D. Provide for the decommissioning/removal of panels and associated utility structures that are no longer being utilized for generation and transmission purposes.
- E. Support the goals and policies of the Comprehensive Plan, including orderly development, efficient use of infrastructure, and protection of natural, scenic, and agricultural resources.
- F. Allow residents access to guidelines for construction of solar energy systems

Section 3. Classifications

- A. Residential Solar Energy Systems (RSES): An area of land or other area used for a solar collection system principally used to capture solar energy, convert it to electrical energy or thermal power, and supply electrical or thermal power solely for on site residential use. The (RSES) may consist of one or more free standing, wall mounted, grounded mounted, solar arrays or modules, or solar related equipment, intended to reduce on-site consumption of utility power and/or fuel. Solar arrays or modules that are ground, wall, or roof mounted are subject to performance standards and require a building permit. RSES can be up to two thousand (2000) square feet in surface area, with a rated nameplate capacity of up to 20kW.
- B. Commercial Solar Energy System (CSES): An area of land or other area used by a business for a solar collection system principally used to capture solar energy, convert it to electrical energy or thermal power, and utilize it solely for on site commercial use. The CSES may consist of one or more free-standing, wall mounted, or roof mounted solar arrays or modules and solar related equipment as defined in Section 4c of this ordinance. All CSES are subject to performance

standards and permit requirements. CSES can be up to ten thousand (10,000) square feet in surface area, with a rated capacity of up to 125 kW.

- C. **Industrial Solar Energy System:** A system used primarily for the production of energy for the power grid. With the enactment of this Ordinance, **Industrial Solar Energy Systems Are Prohibited within the Town of Bremen boundaries.**

Section 4. Definitions

- A. **Solar Energy:** Radiant energy (direct, diffused and/or reflected) received from the sun.
- B. **Solar Array:** a group of multiple solar modules with the purpose of harvesting solar energy.
- C. **Solar Related Equipment:** Items including a solar photovoltaic cell, module, array, solar hot air or water collection device panels, lines, pumps, batteries, inverters, transformers, switches, framing, fencing, foundations, or structure used or intended to be used for collection and management of solar energy.
- D. **Battery Energy Storage Systems (BESS):** Devices that enable energy from renewable energy producers, like solar or wind, to be stored and then released when the power is needed.
- E. **Solar Energy Systems (SES):** a solar photovoltaic cell, module, array, or solar hot 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.
- F. **Solar Energy Systems Ground Mounted:** a solar energy system that is structurally mounted to the ground and is not roof mounted.
- G. **Solar energy Systems Roof Mounted:** a solar energy system that is mounted on the roof of a building or structure.
- H. **Solar Energy Systems Wall Mounted:** a solar energy system that is mounted to the walls of a permanent structure.

Section 5. Applicability

Solar Energy Systems are subject to location and permitting requirements as set forth in the Town of Bremen Table of permissible use of the Land Use Ordinance. 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 modifications to any existing SES, whether or not existing prior to the effective date of this ordinance, that expands the footprint of the SES, shall require approval under this ordinance. Routine maintenance or replacements do not require a permit.

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Section 6. Amendments

- A. Amendments: This ordinance may be amended by vote of a Town Meeting.
- B. Conflict with other Ordinances: This ordinance shall not be construed to repeal any existing ordinances or to impair the provisions of private restrictions placed upon property; provided however, that where this ordinance imposes greater restrictions its provisions shall control.
- C. Effective Date: The effective date of this Ordinance shall be the date of the Town Meeting approval.
- D. Severability Clause: If any Section, Clause, Paragraph, Sentence, or Phrase of this ordinance, for any reason is held to be invalid or unconstitutional, such invalid Section, Clause, Paragraph, Sentence, or Phrase is hereby declared to be severable; and any invalid Section, Clause, Sentence, or Phrase of this Ordinance shall in no way affect the remainder of this Ordinance.

Section 7. Application and Permit Fee

Application Fees:

- A. Residential Solar Energy System. The application fee is \$25.00
- B. Commercial Solar Energy System. The Application Fee is \$1000.00

Section 8. Specific Application Requirements

Any application for a Commercial Solar Energy System be it ground, wall, or roof mounted, in addition to adherence of all requirements in the land use ordinance, must include the following, at the cost of the applicant.

1. The name of the owner of the Commercial SES, the operator if different, and any qualifications.
2. If the operator will be leasing the land, a copy of the agreement (minus financial compensation) clearly outlining the relationship of the rights and responsibilities of the operator, landowner and any other responsible party with regards to the life of the agreement.
3. A statement as to how and to whom the energy produced will be utilized.
4. If a Battery Energy Storage System (BESS) is incorporated in the construction of the Commercial SES, an exterior mounted manual disconnect for the BESS must be identified and operational to support Fire and Life Safety.

5. A statement guaranteeing the design and installation shall conform to applicable industry standards, such as but not limited to, the American National Standard institute (ANSI), Underwriters Laboratory (UL) National Electrical Code (NEC) as well as Federal, State and local Ordinances. The manufacturer's specifications for the key components of the system shall be submitted as part of the application.
6. A description of the panels to be installed, including make, model, and associated major systems components.
7. A construction plan and timeline, identifying known contractors, site control and anticipated on-line date.
8. An operations and maintenance plan, including site control and the projected operational life of the system: such a plan if ground mounted, shall include measures for maintaining safe access to the installation, storm water controls, and 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 use pest control substances (e.g. pesticides, herbicides, fungicides, and/or insecticides).
9. A stormwater management plan, certified by a licensed Maine engineer, that demonstrates stormwater from the ground mounted Commercial SES will infiltrate into the ground beneath the Commercial SES at a rate equal to that of the infiltration rate prior to the placement of the commercial SES.
10. A background noise measurement by a qualified professional for the potential site location.
11. Decommissioning plan, (Ground Mounted only) including:
 - a. 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 (12) months. The applicant may rebut the presumption by submitting evidence, such as a major 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.
 - b. A description of the physical work needed to remove all Solar Energy Systems 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. 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.

- c. An estimate of the total cost of decommissioning value of the equipment and itemization of the estimated major expenses, including the projected cost of measures taken to minimize or prevent adverse effects on the environment during implementation of the decommissioning plan. The itemization of major cost may include, but not limited to, the cost of the following activities: panel removal, panel foundation (frame work) removal and permanent stabilization, building removal and permanent stabilization, transmission corridor removal and permanent stabilization and road infrastructure removal and permanent stabilization.
- d. Demonstration in the form of a performance bond, surety bond, letter of credit, or other form of financial assurance as may be accepted to the Planning Board that upon the end of the useful life of the Solar Energy System the application will have the necessary financial assurance in place for 200% of the estimated cost for decommissioning, subject to a review of such cost by 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 responsible notice, to be defined in the agreement and approved by the Planning Board. The applicant may apply to the Code Enforcement Officer for release of the guarantee at such time that said applicant or the assignee, remove the system and associated abandoned structure, and such completed removal is found to be satisfactory by the Planning Board.
- e. A written statement guaranteeing all components of the SES will be removed, and that no burial of any equipment will take place on the SES site.

Section 9. Standard for Approval

In addition to the Site Review standards and requirements included in the Towns Land Use Ordinance, the following standards must be met prior to the issuing of a Permit. The permit for the Commercial Solar Energy System, including all components that comprise the system, shall be granted only in a zoning district where a facility is allowed (per Town of Bremen Land Use and Development Ordinance)

Commercial Solar Energy Systems (Ground Mounted)

1) Lots – All Commercial ground mounted Solar Energy Systems must be installed on property where the Commercial business is located. Solar Energy Systems shall not exceed 20% coverage of a lot area. Lot coverage shall be calculated based on the total Solar Energy System airspace projected over the ground.

2) All Solar Energy Systems shall be designed and located to ensure physical access without reliance on/or interference to/from adjacent properties.

3) Prohibited Location – Components of a ground mounted Commercial Solar Energy System shall not be placed within any legal easement or right-of-way, or be placed within any stormwater conveyance system, or in any other manner that

would alter or impede runoff from collecting on a constructed stormwater conveyance system. Commercial Solar Energy Systems on agricultural land will require approval by the Bremen planning board.

4) Setbacks-Structures within a Commercial Solar Energy System shall be setback a minimum of 50 feet from all property lines and meet the front setback requirements for structures within the zoning district. Any Solar photovoltaic cells or arrays shall be subject to a minimum height of 4 feet off the ground, and a maximum height of 20 feet above the ground surface. Associated Commercial Solar Energy Systems structures shall be subject to the maximum height regulations specified for principal and accessory buildings within the applicable zoning district.

5) Signage – Ground Mounted Solar Energy Systems shall not be used for displaying a advertising purposes

6) Glare – All Commercial Ground Mounted Solar Energy Systems shall be situated to eliminate concentrated glare onto nearby structures, roadways, and waterways.

7) Lighting – Lighting for Commercial ground mounted Solar Energy Systems shall be limited to that required for safe operational and maintenance purposes and shall conform to the Town of Bremen Land Use and Development Ordinance.

8) Screening – Lots on which Ground Mounted Commercial Solar Energy Systems are located shall utilize buffer / screening from the roads, residences, and waterways by plantings, berms, and natural topographical features. 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, but only if a vegetative screen is deemed impractical by the planning board.

Commercial Solar Energy System (Roof Mounted)

- 1) Height – The total height of a building with a Commercial roof mounted Solar Energy System shall not exceed the maximum building height specified for principal or accessory buildings within the underlying zoning district.
- 2) Glare – All roof mounted Commercial Solar Energy Systems shall be situated to eliminate concentrated glare onto nearby structures or roadways.
- 3) Fire and Life Safety – For firefighters access, a minimum three (3) -foot buffer zone is required from the ridge and at least one (1) edge of the roof. A four (4) foot buffer is required around all chimneys, and a clear path to the chimney must be provided.
- 4) Preservation of Town Character – All reasonable efforts, as determined by the Planning Board, shall be made to ensure any (ground, wall, or roof mounted) Commercial Solar Energy System is consistent with the character of the community via visual consistency with local neighborhood areas, maintenance of open space land, and farms, and the Comprehensive Plan and associated town planning documents.

Commercial Solar Energy Systems (Wall Mounted)

- 1) Wall mounted CSES shall comply with the setbacks for principal and accessory structures for the underlying zoning districts in which the system is located.
- 2) Wall mounted CSES may be located on a principal or accessory building.
- 3) Wall mounted CSES are prohibited from extending beyond the edge of the wall.
- 4) Wall mounted CSES shall be situated to eliminate concentrated glare onto nearby structures, roadways and waterways.

Residential Solar Energy Systems

All Residential Solar Energy Systems be they Roof Mounted, Wall Mounted, or Ground Mounted systems, are required to have a permit prior to installation. The permit covering all components of the system, shall be granted only in a zoning district in which such is allowed. If a BESS is incorporated in the construction of the SES, an exterior mounted manual disconnect for the BESS must be identified and operational to support Fire and Life Safety;

Residential Solar Energy Systems: (Roof Mounted)

- 1) Roof Mounted Solar Energy Systems – All roof mounted SES shall be subject to the maximum height regulations specified for principal and accessory buildings within the applicable zoning district.

2) Glare – All Roof Mounted SES shall be situated to eliminate concentrated glare onto nearby structures, roadways and waterways.

3) Fire and Life Safety – For firefighters access, a minimum three (3) foot buffer zone is required from the ridge and at least one (1) edge of the roof. A four (4) foot buffer is required around all chimneys, and a clear path to the chimney must be provided.

4) Preservation of Town Character – All reasonable efforts, as determined by the Planning board, shall be made to ensure any (ground, wall, or roof mounted) Residential Solar Energy system is consistent with the character of the community via visual consistency with local neighborhood areas, maintenance of open space land and farms, and the Comprehensive plan, and associated Town planning documents.

Residential Solar Energy Systems: (Ground Mounted)

1) Lot – Ground Mounted Solar Energy Systems shall not exceed 15% coverage of a lot area. Lot coverage shall be calculated based on the total Solar Energy System airspace projected over the ground. All Solar Energy Systems will be designed and located to ensure Solar and physical access without reliance on and/or interference to/from adjacent properties.

2) Setback – Ground mounted Solar Energy Systems shall comply with the setbacks for principal and accessory structures in the underlying zoning districts. All Ground Mounted SES must be at a minimum of four (4) feet off the ground and a maximum of twelve (12) feet above the ground surface.

3) Prohibited Location – Components of a ground mounted Solar Energy System shall not be placed within any legal easement or right-of-way, or be placed within any stormwater conveyance system, or in any other manner that would alter or impede runoff from collecting on a constructed stormwater conveyance system.

4) Shoreland Restriction - Proposed ground mounted solar arrays in the shoreland zone must not block the water view of any other residential property. These arrays also require a buffer/screen to impede view of the array from waterways. This screen may be a natural topographical feature, berm, or plantings.

Residential Solar Energy Systems (Wall Mounted)

1) Wall mounted SES shall comply with the setbacks for principal and accessory structures for the underlying zoning districts in which the system is located.

2) Wall mounted SES may be located on a principal or accessory building.

- 3) Wall mounted SES are prohibited from extending beyond the edge of the wall.
- 4) Wall mounted SES shall be situated to eliminate concentrated glare onto nearby structures, roadways, and waterways.

Section 10. Authority:

This Ordinance is adopted pursuant to the enabling of Article VIII, part 2, section 1 of the Maine Constitution, provisions of 30-A, MRSA section 3001 (Home Rule), the State Growth Management Law, Title 30-A, MRSA Section 4311, et. Seq., and the Mandatory Shore land Zoning Act, Title 38, MRSA section 435 et. Seq.

Section 11. Enforcement Violation and Penalties:

This Ordinance shall be enforced by Municipal Officials, and the Code Enforcement Officer (CEO) .