

DRAFT 110419
Proposed New Wilton Zoning Ordinance
Solar Collection Systems

1. Authority and Purpose.

This solar collection system ordinance is enacted in accordance with RSA 674:17(l)(j) and for the purposes outlined in RSA 672:1-III-a, as amended. This ordinance is intended to accommodate solar energy collection systems and distributed generation resources in appropriate locations, while protecting the public's health, safety and welfare, and to facilitate the State and National goals of developing clean, safe, renewable energy resources in accordance with the enumerated polices of NH RSA 374-G and 362-F.

2. Definitions.

2.1 Agricultural System: Any SCS intended primarily to reduce on-site consumption of utility power for agricultural uses with (a) a Rated Capacity of one megawatt (MW) alternating current (AC) or less and (b) five acres or less Solar Land Coverage, provided any existing agricultural use is preserved at the time of installation.

2.2 Ground Mounted: The portion of an SCS that is affixed to or placed upon the ground including, without limitation, fixed, passive or active tracking racking systems, as well as mobile solar collection equipment with more than 64 square feet of collecting surface which remains anywhere on a site for more than 30 consecutive days.

2.3 Industrial System: Any SCS intended to (1) reduce on-site consumption of utility power, (2) generate power for sale to customers, or (3) produce energy strictly for distribution to the power grid, with (a) a Rated Capacity of 30 MW AC or less and (b) [100] acres or less Solar Land Coverage.

2.4 Large Commercial System: Any SCS intended primarily to reduce on-site consumption of utility power with (a) a Rated Capacity of five MW AC or less and (b) [20] acres or less Solar Land Coverage.

2.5 Rated Capacity: Maximum rated alternating current ("AC") output of an SCS based on its design output.

2.6 Residential System: Any SCS intended primarily to reduce on-site residential consumption of utility power with (a) a Rated Capacity of [12] kW AC or less and (b) [1000] square feet or less Solar Land Coverage.

2.7 Roof Mounted: The portion of an SCS that is mounted on the roof of a permitted structure, including the roof of a garage or over a carport or parking area that is an Accessory Building. The Roof Mounted portion of an SCS shall not be included in the calculation of the SCS's Solar Land Coverage.

2.8 Shared System: Any SCS intended primarily to reduce residential and/or commercial consumption of utility power by multiple consumers (e.g., households or businesses) who either (a) own, directly or indirectly, the SCS, or (b) are tenants of the property to be served by the SCS, with (1) a Rated Capacity of 100 kilowatt (kW) AC or less and (2) one acre or less Solar Land Coverage. A Shared System could be appropriate for cluster developments, commercial or residential condominiums or cooperatives, or apartment buildings, among others.

2.9 Small Commercial System: Any SCS intended primarily to reduce on-site commercial consumption of utility power, with (a) a Rated Capacity of [12] kW AC or less and (b) [500] square feet or less Solar Land Coverage.

2.10 Solar Collection System or SCS: All equipment required to harvest solar energy to generate electricity, including, without limitation, collection and storage devices, mounting hardware and ballast, power conditioning equipment, transfer equipment and parts related to the functioning of that equipment. Solar Collection Systems do not include the equipment used to connect an SCS to the utility grid or site service point or equipment used after that point.

2.11 Solar Land Coverage: The land area of a lot on which all components of the SCS, other than Roof Mounted equipment or equipment installed inside a permitted building, are installed, including, without limitation, mounting equipment, panels and ancillary components, but not including access roads or fencing. Solar Land Coverage shall not equate to impervious surface as that term is used in this ordinance.

3. Table of Permitted Uses.

Notwithstanding anything to the contrary contained elsewhere in the Town zoning ordinance, Solar Collections Systems complying with this ordinance shall be permitted as follows:

	Zoning District					
	Residential	Residential/ Agricultural	Commercial	Downtown Commercial	Industrial	Office Park/Research and Office Park
Residential System	P	P	P	X	X	X
Shared System	P	P	P	X	P	P
Agricultural System	X	P	P	X	X	X
Small Commercial System	X	X	P	P	P	P
Large Commercial System	X	X	P	X	P	[P]
Industrial System	X	X	X	X	P	X

P = Use permitted by right with building and electrical permit.

X = Use prohibited.

4. General Requirements and Exemptions.

4.1 The installation and operation of Solar Collection Systems shall comply at all times with applicable building, utility, electrical, fire and other safety codes; State and Federal laws and regulations; local noise and other ordinances, and the performance standards of this ordinance. A copy of the approved interconnection application for all Solar Collection Systems that are tied into the utility grid shall be filed with the Town.

4.2 Except as expressly set forth below, all proposed Solar Collection Systems shall require prior Site Plan review and approval by the Planning Board.

4.3 Ground Mounted Solar Collection Systems:

4.3.1 No Ground Mounted portion of an SCS shall exceed [20] feet in height.

4.3.2. The Ground Mounted portions of Residential Systems shall be located in a side or rear yard between the primary structure and the relevant lot line and shall be reasonably screened from abutting residential properties.

4.3.3 The Ground Mounted portions of Solar Collection Systems shall comply with the impervious surface limitations and related stormwater management requirements in this ordinance and, to the extent they do not conflict with such requirements, any stormwater management requirements imposed in the underlying zoning district(s) and/or overlays.

4.3.4 The Solar Land Coverage of Ground Mounted Solar Collection Systems [shall/shall not] be included in the calculation of maximum lot

coverage permitted in the underlying zoning district(s) and/or overlays.

4.4 Roof Mounted Solar Collection Systems:

4.4.1 The Roof Mounted portions of Solar Collection Systems may not exceed the height restrictions applicable to buildings in the underlying zoning district.

4.4.2 Wholly Roof Mounted Residential Systems are exempt from Site Plan review requirements. [**consider possible glare issues for taller abutters?**]

4.5 Solar Collection Systems used primarily to benefit the Town of Wilton are municipal systems exempt from land use regulations pursuant to NH RSA 674:54. Solar Collection Systems operated by third parties on land leased from the Town are not exempt municipal systems.

4.6 Solar Collection Systems, other than utility connection equipment, shall be deemed structures that must comply with the setback requirements of the underlying zoning district(s) and/or overlays. The setback for a tracking system in an SCS shall be measured from where the array is closest to the lot line and no portion of an SCS may cross into the setback area.

4.7 From time to time after the date on which this ordinance is adopted, the Planning Board may, based upon its assessment of technological developments or enhancements extending the capacity or efficiency of Solar Collection Systems, and in compliance with the other requirements of this ordinance, increase the Rated Capacity limitations contained in any of the definitions in Section 2 above in order to further the purposes and intent of this ordinance.

4.8 The site of an SCS shall be altered only to the extent necessary for its installation and operation and for sufficient all-season access thereto. To the fullest extent practicable, following installation, the site shall be restored to its original state, and, where appropriate, with native species that are consistent with the use of the site (such as slow growth or low ground cover). Placement and installation of Solar Collection Systems shall minimize impact on agricultural activities and Prime Farmland Soils (as defined by the [NRCS] and delineated by soil surveys).

5. Site Plan Review. The application for a Site Plan review shall comply with the following, as well as any other Site Plan Review Regulations not otherwise covered in this Section 5. To the extent that any of the requirements of this Section 5 conflict with any of the requirements of the Site Plan Review Regulations, the requirements of this Section 5 shall prevail. The Site Plan shall include:

5.1 Site Conditions and System Layout: A scale drawing indicating, without limitation, (a) the topography and vegetation in the installation area, both pre- and post-installation, and (b) the location of all equipment to be installed on site, including utility connection point(s) and equipment. To the maximum extent practical, all wiring associated with the utility connection shall be underground.

5.2 Equipment Specifications: Manufacturers' specifications for all proposed equipment and its output, as well as for noise generation, anti-reflective materials and other characteristics of the system from time to time identified by the Planning Board.

5.3 Emergency Response: (a) Drawings indicating where access to the site for emergency response is located; (b) a narrative or manual detailing response guidance and disconnection locations; and (c) additional industry guidance addressing safety procedures for specific equipment on site.

5.4 Natural Resource Buffers: A buffering plan demonstrating how the Ground Mounted portion of an SCS will be effectively screened from public ways and neighboring views, including, without limitation, (a) the location, height and spacing of existing vegetation to be preserved; (b) areas of new planting and the type thereof; and (c) how existing or manufactured topography will be used to reduce visual impact.

5.5 Fencing: The location and composition of any fencing required by applicable code or the utility, provided that the Ground Mounted portion of an SCS with a Rated Capacity greater than [100kW AC] shall be fenced. The Planning Board may, in addition, require additional security or fencing if the location of the SCS presents a safety concern for abutting land uses.

5.6 Erosion Control: The means and location of erosion control measures during installation.

5.7 Lighting and Glare: The location, type, strength and direction of all lighting for Ground Mounted equipment or otherwise added to an SCS site, in each case solely to identify access or address safety requirements. For Agricultural, Large Commercial and Industrial Systems, an assessment of potential glare onto abutting structures and roadways, based on different sun to panel angles, seasons, and visibility locations. The Planning Board may require reasonable mitigation of potentially significant glare, including, without limitation, adjustment of the angle of panels, anti-reflective panel coatings, or additional specific screening. [Any required anti-reflective coatings shall have an index of refraction equal to or less than 1.30.]

5.8 Natural Resource Inventory: If the SCS will disturb ten or more acres of previously undisturbed land, a natural resource inventory detailing site conditions and habitats, as well as undertakings to mitigate any adverse impact on the affected habitats.

6. Stormwater Requirements for Ground Mounted Solar Collection Systems.

6.1. Requirements for All Ground Mounted Solar Collection Systems: The Ground Mounted portions of Solar Collection Systems shall be installed in accordance with Best Management Practices for erosion, sedimentation and runoff control during all site preparation, installation and post-installation restoration phases, in order to maintain healthy surface and subsurface conditions that can attenuate stormwater.

6.2 SCS Requiring NH DES Alteration of Terrain (AoT) Permit (RSA 485:17):

6.2.1 An applicant shall file the final AoT permit with the Town. The terms and conditions of the permit shall be incorporated by reference into any Planning Board approval of the SCS and shall be enforceable by the Town in accordance with this ordinance.

6.2.2 The holder of an AoT permit shall not be required to comply with the requirements of Section 6.3 of this ordinance, although the Planning Board may, but shall not be required to, perform further review of stormwater and erosion controls in place at the site of the SCS where an AoT permit has been issued. Issuance of the permit shall not affect the applicant's obligations to address all issues required by a Site Plan review.

6.3 SCS Not Requiring an AoT Permit:

6.3.1 If the Ground Mounted portion of an SCS (a) requires land clearing and grubbing of mature forested cover (1) to accommodate more than 30% of the proposed Solar Land Coverage and (2) over more than one acre, or (b) has Solar Land Coverage greater than one acre and is located on a slope greater than five percent, the applicant shall submit a plan to manage stormwater runoff that is directly related to the SCS.

6.3.2 The stormwater management plan referred to in Section 6.3.1 shall take into account the nature of the installation and how the spacing, slope and row separation of collection equipment will affect or enhance stormwater infiltration. Percolation tests or site-specific soil information may be provided to demonstrate that recharge can be achieved without engineered solutions. The Planning Board may require additional information about the potential for concentrated runoff due to

the type of collection equipment, slope, soil type and the impact of other true impervious areas (such as equipment pads and roadways).

7. Abandonment and Decommissioning.

7.1 The owner or operator of an SCS other than a Residential System shall give not less than [one] month's prior written notice to the Town of its intent to cease operation of the SCS for any reason. An SCS shall be deemed to be abandoned or decommissioned upon the earlier to occur of (a) the date on which its operation will cease as indicated in the notice to the Town or (b) six months after operation thereof has been discontinued for any reason, unless the Town has given its prior written consent to the discontinuance.

7.2 The Ground Mounted portions of an abandoned or decommissioned SCS that are above grade shall be removed in accordance with applicable State, Federal and local rules, regulations and ordinances, including, without limitation, requirements for the disposal of hazardous materials, and the site shall be restored to its natural state, within six months following the date on which it is abandoned or decommissioned. The Building Inspector shall inspect the site and determine whether removal has complied with this ordinance.

7.3 The application for a Large Commercial or Industrial System shall include a plan addressing the decommissioning of the SCS and the removal of the equipment as required by Section 7.2. As a condition to the approval of a Large Commercial or Industrial System, the owner or operator shall post a bond or other surety in an amount and on terms and conditions determined by the Planning Board and issued by an institution acceptable to it, covering the full cost of removing the SCS if it is not properly and timely removed as required by Section 7.2. The Planning Board may review the amount of the bond or surety from time to time and require it to be adjusted so that it is adequate for its purpose.