

CHANGES IN ZONING ORDINANCE TO INCORPORATE SOLAR REGULATIONS

Modify Note (i) of Table 2 in Subsection 4.1

(i) “*Setbacks apply to ground mounted Solar Collection Systems.* Increases in the Minimum Yard Setbacks may be”

Definitions to be added to Article 18

Solar Collection System Includes all equipment required to harvest solar energy to generate electricity or that directly heats water or other liquid using sunlight. The Solar Collection System includes storage devices, power conditioning equipment, transfer equipment, and parts related the functioning of those items. Solar Collection Systems include only equipment up to (but not including) the point that connection is made to the utility grid or service point.

Solar Land Coverage The Solar Land Coverage is the land area that encompasses all components of the solar collection system including but not limited mounting equipment, panels, and ancillary components of the system. It is defined exclusively for the purposes of calculating the footprint of the land area occupied by the components of a solar array. This definition does not include access roads or fencing, roof areas, and is not to be interpreted as a measurement of impervious surface as may be defined in this ordinance.

Solar Roof Mount A Solar Collection System that is structurally mounted to the roof of a building or other permitted structure, including limited accessory equipment associated with the system, which may be ground mounted. For purposes of calculating array sizes or Solar Land Coverage under the solar definitions in this section, the area of roof mounted portions shall not be included, and if the system is made up of both roof and ground mounted systems, the area of the roof mounted portions shall be excluded.

Solar Carport Mount Any Solar Collection System of any size that is installed on the roof structure of a carport over a parking area.

Solar Ground Mount A Solar Collection System and associated mounting hardware that is affixed to or placed upon the ground (e.g., a ballasted system) including but not limited to fixed, passive, or active tracking rack systems.

Article 19 Appendix Table 1 addition

USE SOLAR						
Residential Solar	P	P	P	P	P	P
Community Solar	P	P	P	P	P	P
Agriculture Solar	P	P	P	P	P	P
Agriculture Accessory Solar	CP	CP	CP	CP	P	P
Commercial/Industrial Solar	CP	CP	CP	P (17)	P (17)	CP
Utility Solar	CP	CP	CP	CP	CP	CP

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Add following footnote to Table 1 of Article 19

(17)	Conditional Use Permit required if Solar Land Coverage exceeds 20 acres.
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New Article 21

ARTICLE 21..... SOLAR COLLECTION SYSTEMS

21.1...Purpose and Intent

The purpose of this ordinance is to accommodate solar energy collection systems and distributed generation resources in appropriate locations, while protecting the public's health, safety and welfare. The Town intends to facilitate the State and National goals of developing clean, safe, renewable energy resources in accordance with the enumerated policies of NH RSA 374-G and 362-F that include national security and environmental sustainability. This solar collection system ordinance is enacted in accordance with RSA 674:17(I) and the purposes outlined in RSA 672:1-III-a as amended.

21.2...Use Definitions:

21.2.1.....Residential Solar: Any ground mounted or roof mounted Solar Collection System primarily for on-site residential use, and consisting of one or more free-standing, ground or roof mounted, solar arrays or modules, or solar related equipment intended to reduce on-site consumption of utility power or fuel that is less than 500 square feet solar land coverage.

21.2.2.....Community Solar: Any ground mounted or roof mounted Solar Collection System primarily for shared community use that is less than one acre of Solar Land Coverage.

21.2.3.....Agriculture Solar: Any ground mounted or roof mounted Solar Collection System designed to primarily reduce on-site consumption of utility power or fuel that is less than four acres of solar land coverage provided the existing agricultural use is preserved at the time of installation.

21.2.4.....Agriculture Accessory Solar: Any ground mounted or roof mounted Solar Collection System that is partially used to reduce on-site consumption of utility power or fuel for activities such as processing, freezing, packaging, etc., and has a Solar Land Coverage between 4 and 20 acres provided the existing agricultural use is preserved at the time of installation.

21.2.5.....Commercial/Industrial Solar: A use of land that consists of one or more free-standing, ground mounted Solar Collection Systems that is less than 20 acres in Solar Land Coverage primarily used for on-site reduction in consumption of utility power or fuel. Larger Solar Land Coverage may be permitted if development of a commercial site requires more on-site electrical consumption than can be provided by a Solar Collection System covering 20 acres.

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21.2.6.....Utility Solar: A use of land that consists of one or more free-standing, ground mounted Solar Collection Systems that has a Solar Land Coverage between 20 and 100 acres.

21.3...Specific Solar System Requirements and Exemptions:

21.3.1.....A fixed ground-mounted Residential Solar system shall not exceed 15 feet in height at any point. A tracking ground-mounted Residential Solar system shall not exceed 20 feet in height at any point. All ground mounted systems located in the front yard shall be reasonably screened from abutting residential properties/roads.

21.3.3.....A ground mounted Solar Collection System that directly heats water or other liquid using sunlight shall not exceed 500 square feet solar land coverage.

21.3.2.....Solar Roof Mount and Solar Carport Mount solar collection systems of any size are permitted in all zones without a conditional use permit.

21.3.3.....Roof mounted solar collection systems shall be exempt from from building height limitations.

21.3.4.....Ground-mounted solar collection systems shall not be considered part of the maximum required lot coverage limitations but shall comply with Article 4.7 Drainage System Requirements of the Town of Barrington Site Review Regulations.

21.3.5.....Solar Collections Systems shall be installed so as not to create a glare hazard on roadways or excessive glare to abutting properties.

21.3.6.....Noise generated by Solar Collection Systems shall comply with the Town of Barrington Noise Ordinance limits.

21.4...Additional Permitted Sites

The Town of Barrington may allow the siting of privately owned or operated solar collection systems on governmentally owned land under a lease arrangement.

21.5...Requirements for Granting a Conditional Use Permit (CUP)

21.5.1.....CUPs are required as delineated in Table 1 of the Zoning Ordinance.

21.5.2.....CUPs shall be assessed and approved per the criteria in Section 3.4 of the Zoning Ordinance using the information provided under this section.

21.5.3.....Required screening shall be maintained during the operative lifetime of the Solar Collection System.

21.5.4.....System Layout

21.5.4(1).....A detailed sketch or plan showing the installation area of the site.

21.5.4(2).....A detailed sketch of any land clearing or grading required for the installation and operation of the system.

21.5.4(3).....The location of all equipment to be installed on site including utility connection

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point(s) and equipment. To the maximum extent practical all wiring associated with the utility connection shall be underground.

21.5.4(4).....All equipment locations, except for utility connections, shall comply with the required setbacks.

21.5.5.....Equipment Specification

21.5.5(1).....All proposed equipment or specifications must be included with the application.

21.5.5(2).....Such information can be supplied via manufacturer's specifications or through detailed description.

21.5.6.....Emergency Response

21.5.6(1).....Access to the site for emergency response shall be provided and detailed on the plan.

21.5.6(2).....A narrative or manual for Barrington Fire Department detailing response guidance and disconnection locations necessary for fire response.

21.5.6(3).....Additional industry guidance documents that provide information about safety procedures for specific equipment on site shall be provided as needed to insure adequate public safety.

21.5.7.....Natural Resource Impacts and Buffers

21.5.7(1).....Solar collection systems shall be visually screened through the preservation of existing vegetation or through a landscaped buffer

21.5.7(2).....The buffering plan shall indicate the location, height and spacing for the existing vegetation to be preserved and areas where new planting will be required.

21.5.7(3).....All solar systems shall have a reasonable visual buffer from public ways and neighboring commercial/residential uses based on the viewsheds, contours of the land, and abutting land uses.

21.5.7(4).....Fencing shall be installed, if required, by the electric code or the utility. Additional security or fencing may be required if the location of the system presents a safety concern for abutting land uses.

21.5.7(5).....Agriculture Solar should minimize impacts to farmland activities and Prime Farmland Soils (as defined and delineated by soil survey and definition of NH NRCS). Dual use arrangements (solar and farming activities) are encouraged where practical.

21.5.8.....Land Clearing

21.5.8(1).....Land clearing shall be limited to what is necessary for the installation and Operation of the system and to insure sufficient all-season access to the solar resource given the topography of the land.

21.5.8(2).....Following construction, cleared land areas must be restored with native species

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that are consistent with the use of the site as a solar collection system (such as slow growth or low ground cover).

21.5.8(3).....Erosion control measures during construction shall be detailed as required.

21.5.9.....Glare

A statement detailing potential significant glare onto abutting structures and roadways estimating the interaction of sun to panel angle, time of year, and visibility locations.

21.5.10.....Noise

Estimates of any equipment noise on the site based on equipment specification materials (such as inverters or pumps).

21.6...Electrical/Plumbing Requirements

21.6.1.....Solar Collection Systems generating electricity shall be inspected by the Building Inspector as specified in the Electrical Permit, if required.

21.6.2.....Grid-tied systems shall file a copy of a final approved interconnection with the municipality prior to operation of the system.

21.6.3.....Thermal energy collection systems shall be inspected by the Building Inspector as specified in the Plumbing Permit, if required.

21.7...Abandonment

Ground mounted Solar Collection Systems greater than 500 square feet shall be deemed abandoned if operations have discontinued for greater than six months without written consent of the Town (such as for reasons beyond the control of the owner/operator). An abandoned system will be removed and the site restored within six months of abandonment.