

**NOTE TO READERS:**

This version incorporates many suggestions made by members of the public and the Board during the February 9 and February 23 sessions of the public hearing in their comments to the first version. This version shows in blue underlined text, or ~~struck through~~ text, the major revisions that are being suggested, including:

- A clear preference for siting on rooftops, brownfields and industrial land, while removing the previous statement to support economic viability of agriculture;
- Provisions to regulate the placement of ground mounted solar in front yards, particularly within the dense residential zones;
- Changes to the design and performance standards to address screening methods, auditory impacts, land clearing, and other items;
- A rethinking of the table of use regulations that results in only three major categories: roof-mounted, accessory use, and commercial scale. Roof mounted would be allowed anywhere. Accessory uses are to be regulated by site plan review and special permit depending on size and location. Commercial scale is to be regulated in all zones and allowed by right only in industrial zones; and,
- Changes to the definitions to reflect the different categories and scales of systems.

The hearing is still open and will be concluded at the next meeting, on March 9 at 7:00 after which the Board will vote on the proposed zoning amendment.

**Article : Solar Energy Systems**

To see if the Town will vote to amend the Zoning Bylaw by adding a new Section 9.12, Solar Energy Systems, and revising Section 3.1.4, Section 4.1, and Section 11, as proposed below, or to take any other action relative thereto.

*Purpose of the Amendment:* This amendment is to add reasonable regulations for solar energy systems of all sizes throughout the Town and to bring Great Barrington's zoning bylaws into conformance with state law.

*Add a new Section 9.12, as follows:*

**9.12 SOLAR ENERGY SYSTEMS**

**9.12.1 Purpose.** The purpose of this Section is to: provide reasonable regulations to govern Solar Energy Systems in order to regulate the size, placement, design, construction, operation, maintenance and removal of such installations; minimize the impacts on and loss of scenic, natural, agricultural and historic resources, ~~including agricultural resources, and the character of residential neighborhoods~~; protect public health, safety, and welfare; and, ~~provide for encourage the siting of such installations on rooftops, brownfields, and industrial land. increase the economic viability of local agriculture by providing an alternative revenue source.~~ provide for encourage the siting of such installations on rooftops, brownfields, and industrial land.

**9.12.2 Use Regulations.** Solar Energy Systems shall be permitted as set forth in Section 3.1.4, the Table of Use Regulations.

**9.12.3 Dimensional Regulations.**

1. Setbacks. A ground mounted solar energy system shall not be located within the front, side, or

rear yard required in the zoning district in which the system is located. Perimeter fences more than six feet high and appurtenant structures such as transformers, utility boxes, or utility poles, shall also be subject to this requirement, but the Planning Board may grant a waiver if it is shown that a particular location is required by the applicable utility company for utility grid connection purposes.

2. Lot Coverage. A solar energy system shall not be included in calculations for lot coverage or impervious surface area, unless the ground area under the solar energy system is impervious.

**9.12.4 Design and Performance Standards.** All ground mounted solar energy systems, whether permitted by right or by special permit, shall comply with the following standards, ~~as applicable:~~

1. Visual Impact. Reasonable efforts, ~~as determined by the Planning Board, as applicable,~~ shall be made to minimize visual impacts from public rights of way and abutting properties. Dense vegetation is the preferred method of screening. In R1A, R1B, R3, B1, and MXD zones, round-mounted solar energy systems should not be located nearer to the front lot line than an existing primary structure.
2. Auditory Impact. There shall be no auditory impact upon abutting residential properties. Operation of the system shall cause no increase in sound levels, beyond background levels, measurable on abutting residential properties.
3. 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 by laws/ordinances,~~ minimized. Areas of clearing shall be revegetated to the extent practicable to minimize erosion.
4. Agricultural Land. Where systems are proposed on farm-land, or on prime farmland soils as defined by the United States Department of Agriculture Natural Resources Conservation Service, systems shall be designed, constructed, and operated in such a way as to minimize soil compaction and loss of fertility and shall incorporate active farm uses to the extent practicable. The land removed from agricultural use ~~must shall not be more than~~ exceed 20% of the total existing agricultural land in common ownership at, or abutting, the solar energy system location, ~~and not more than~~ or 15 acres, whichever is less.
5. Lighting. Any proposed lighting shall be provided for emergency-use only and directed downward and have full horizontal cut-offs.
6. Utility ~~Connections~~ Lines. Any utility lines connections including those between a solar energy system and the utility grid shall be underground to the extent feasible, ~~unless it is not permitted by the utility.~~
7. Fences. All perimeter fences shall have a ~~minimum~~ clearance of six (6) inches between the bottom of the fence ~~section~~ and the ground.
8. Plantings / seed mix: All proposed landscaping and revegetation shall be with noninvasive species and seed mixes that are pollinator and habitat friendly and do not require the use of pesticides or herbicides.

**9.12.5 Special Permits.** Special Permits for solar energy systems shall be required as set forth in Section 3.1.4, the Table of Use Regulations, and shall be subject to the requirements of this Section and the criteria of Section 10.4.

**9.12.6 Site Plan Review.** Accessory Use solar energy systems in excess of 750 square feet of project area and Commercial scale solar energy systems shall be subject to Site Plan Review by the Planning Board, in accordance with Section 10.5.

In addition to the submittal requirements of Section 10.5.3, the project proponent shall provide the following:

1. Locations of farmland soils, by type, and plans to protect, maintain, and/or restore same.
2. Locations of proposed utility connections and disconnects.
3. Locations and details of proposed access roads in and around the solar energy system.
4. Locations and details of any perimeter fencing.
5. Structural details of the system.
6. Operations and Maintenance Plan and Emergency Management Plan. A copy of the Site Plan, electrical schematics, and the Emergency Management Plan shall be provided to the Great Barrington Building Inspector and Fire Chief prior to issuance of a Certificate of Occupancy. A periodic, not less than annual, certification and summary of Operations and Maintenance activities, including mowing or farming as applicable, shall be submitted to the Planning Board.

**9.12.7 Agricultural Commission Review.** If the ~~medium or large~~commercial-scale solar energy system in excess of 750 square feet of project area is to be located on land that is actively farmed, or ~~was~~has been farmed within the last five years, or on prime farmland soils, the project proponent shall provide a full copy of the Site Plan Review application to the Agricultural Commission simultaneously with submittal to the Planning Board. The Agricultural Commission shall review and provide comments relative to agricultural matters to the Planning Board within 30 calendar days of the filing of the application. The Planning Board shall not issue its Site Plan decision until the Agricultural Commission has provided its comments to the Board unless more than 30 days have passed since the application was filed.

**9.12.8 Insurance, Decommissioning, ~~or~~ and Abandonment.**

1. Approval of any ~~medium or large~~Commercial scale ground-mounted solar energy system shall require a Decommissioning Plan that includes consideration of the following:
  - (a) Physical removal of all solar energy systems, foundations and structures, equipment, fencing, security barriers and transmission lines from the site.
  - (b) Disposal of all solid and hazardous waste in accordance with local, state, and federal waste disposal regulations.
  - (c) Stabilization or re-vegetation of the site as necessary to minimize erosion.
  - (d) Soil Restoration, including soil health.
  - (e) Financial Surety: The proponent and land owner shall provide a form of surety, through an escrow account, a bond, or otherwise, in a form satisfactory to the Planning Board, to cover the cost of removal and remediation in the event that the town must remove the installation and remediate the landscape. The surety shall include a fully inclusive estimate of these costs prepared by a qualified engineer, including a mechanism for calculating increased costs resulting from inflation.
2. Absent notice of a proposed date of decommissioning or written notice of extenuating circumstances, a ground-mounted solar energy system shall be considered abandoned when it fails to operate for more than two years without the written consent of the Planning Board. Abandoned facilities shall be removed at the owner's expense.
3. Approval of a Commercial scale ground-mounted solar energy system shall require evidence of liability insurance in an amount and duration sufficient to cover loss or damage to persons

and structures occasioned by the failure of the facility.

Amend the Table of Use Regulations Section 3.1.4 by adding a new item E (7), as follows:

Permitted Use	ZONING DISTRICT <sup>1</sup>														ADDITIONAL APPLICABLE REGULATIONS	
	R1A	R1B	R2	R3	R4	B	HVC	B1	B2	B2A	B3	MXD	I	I2		
<b>E. Utilities, communication and transportation</b>																
(7) Solar Energy Systems: Roof-mounted (any size)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	See also 9.12
<del>Individual-scale</del>																
<u>Accessory use, up to 750 sf</u>	Y	Y	Y	Y	Y	Y	<u>PB</u>	<u>PB</u>	Y	Y	Y	Y	Y	Y	Y	See also 9.12.
<u>Accessory use 750 sf or larger</u>	<u>PB</u>	<u>PB</u>	<u>Y</u>	<u>PB</u>	<u>Y</u>	<u>PB</u>	<u>PB</u>	<u>PB</u>	<u>Y</u>	<u>Y</u>	<u>PB</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>	See also 9.12
<u>Commercial scale</u>	N	N	PB	N	PB	PB	N	N	N	PB	N	PB	N	Y	PB	See also 9.12
<del>Small-scale</del>																
<u>Medium-scale</u>	N	N	PB	N	PB	N	N	N	N	PB	PB	PB	N	Y	Y	See also 9.12.
<u>— on lots 5 acres or larger</u>	<u>PB</u>	<u>PB</u>	<u>PB</u>	<u>PB</u>	<u>PB</u>	N	N	N	N	<u>PB</u>	<u>PB</u>	<u>PB</u>	N	Y	Y	See also 9.12.
<del>Large-scale</del>																
<u>— on lots 5 acres or larger</u>	<u>PB</u>	<u>PB</u>	<u>PB</u>	<u>PB</u>	<u>PB</u>	N	N	N	N	<u>PB</u>	<u>N</u>	<u>N</u>	<u>N</u>	<u>Y</u>	<u>PB</u>	See also 9.12.

Amend Section 4.1.3 note 2 by adding underlined text as follows:

2. For exceptions, see Section 4.2.8.1. The height regulations do not apply to agricultural structures, antennae, belfries, chimneys, churches, cupolas, mixing plants, roof-mounted solar energy systems, screening or loading towers for sand or rock, spires, ventilators, water tanks, wind energy generators, or other appurtenances usually required to be placed above roof level and not intended for human occupancy.

Amend Section 4.1.3 by adding new note 14 as follows:

14. For dimensional requirements for solar energy systems, see Section 9.12, Solar Energy Systems.

Amend Section 11, Definitions, by adding the following new definitions:

**PHOTOVOLTAIC SYSTEM (ALSO REFERRED TO AS PHOTOVOLTAIC INSTALLATION):** An active solar energy system that converts solar energy directly into electricity.

**PROJECT AREA:** The land area required to accommodate and support the installation and operation of a solar energy system; typically, the land which is enclosed within the line of a perimeter fence, ~~if provided,~~ that encloses the solar energy system and its accessory components or, if there is no fence, the area of the ground covered by the installation.

~~**RATED NAMEPLATE CAPACITY:** The maximum rated output of electric power production of a photovoltaic system in kilowatts (kW) of Direct Current (DC).~~

~~**SOLAR ACCESS:** The access of a solar energy system to direct sunlight.~~

**SOLAR COLLECTOR:** A device, structure or a part of a device or structure for which the primary purpose is to transform solar radiant energy into thermal, mechanical, chemical, or electrical energy.

**SOLAR ENERGY:** Radiant energy received from the sun that can be collected in the form of heat or light by a solar collector.

**SOLAR ENERGY SYSTEM:** A device or structural design feature for the collection, storage and distribution of solar energy for space heating or cooling, electricity generation, or water heating.

~~**SOLAR ENERGY SYSTEM:** A solar energy system whose primary purpose is to transform solar energy into another form of energy or to transfer heat from a collector to another medium.~~

~~**SOLAR ENERGY SYSTEM, INDIVIDUAL SCALE ACCESSORY USE:** A Solar Energy System that occupies less than 1,750 square feet of Project Area whose function is accessory to provide electric power directly to for the primary use of the subject property where the annual production does not exceed the annual electric usage of the subject property or to an abutting property in common ownership.~~

~~**SOLAR ENERGY SYSTEM, COMMERCIAL SCALE:** A Solar Energy System in excess of 750 square feet that is not an accessory use.~~

**SOLAR ENERGY SYSTEM, GROUND-MOUNTED:** A Solar Energy System of any size that is structurally mounted to the ground and is not roof-mounted.

~~**SOLAR ENERGY SYSTEM, LARGE SCALE:** A Solar Energy System that occupies more than 40,000 square feet of Project Area.~~

~~**SOLAR ENERGY SYSTEM, MEDIUM SCALE:** A Solar Energy System that occupies more than 4,000 square feet but less than 40,000 square feet of Project Area.~~

**SOLAR ENERGY SYSTEM, ROOF-MOUNTED:** A Solar Energy System of any size that is structurally mounted to the roof of a building

~~**SOLAR ENERGY SYSTEM, SMALL SCALE:** A Solar Energy System that occupies 1,750 to 4,000 square feet, or less, of Project Area or less.~~

~~**SOLAR THERMAL SYSTEM:** A Solar Energy System that uses solar collectors to convert the sun's rays into useful forms of energy for water heating, space heating, or space cooling.~~