# Act 56 Report: A Report to the Vermont General Assembly on Municipal Adoption of Solar Screening Regulations

January 13, 2017





AGENCY OF COMMERCE & COMMUNITY DEVELOPMENT DEPARTMENT OF HOUSING & COMMUNITY DEVELOPMENT

# Contents

# Introduction

The purpose of this report is to inform the General Assembly of adopted municipal screening requirements for solar generation facilities, and the disposition of proceedings before the Public Service Board in which such requirements have been applied. The specific requirements of the report, as prescribed in Act 56 of 2015 (An act relating to establishing a renewable portfolio standard), are:

"Sec. 26f. REPORT; TOWN ADOPTION OF SOLAR SCREENING

- (a) On or before January 15, 2017, the Commissioners of Housing and Community Development and of Public Service (the Commissioners) jointly shall submit a report to the House and Senate Committees on Natural Resources and Energy that:
  - identifies the municipalities that have adopted screening requirements pursuant to Sec. 26d of this act, <u>24 V.S.A. § 4414(15)</u>, or Sec. 26e of this act, <u>24 V.S.A. § 2291(28)</u>;
  - 2. summarizes these adopted screening requirements; and
  - 3. provides the number of proceedings before the Public Service Board in which these screening requirements were applied and itemizes the disposition and status of those proceedings."

# Background

Act 56 enabled the adoption by municipalities of solar screening bylaws, and provided for the application of such bylaws through 30 V.S.A. § 248 (Section 248) proceedings before the Public Service Board. The full language of the solar screening bylaws provision is copied below.

"Sec. 26d. 24 V.S.A. § 4414(15) is added to read:

(15) Solar plants; screening. Notwithstanding any contrary provision of sections 2291a and 4413 of this title or 30 V.S.A. chapter 5 or 89, a municipality may adopt a freestanding bylaw to establish screening requirements that shall apply to a ground-mounted plant that generates electricity from solar energy. In a proceeding under 30 V.S.A. § 248, the municipality may make recommendations to the Public Service Board applying the bylaw to such a plant. The bylaw may designate the municipal body to make this recommendation. Screening requirements and recommendations adopted under this subdivision shall be a condition of a certificate of public good issued for the plant under 30 V.S.A. § 248, provided that they do not prohibit or have the effect of prohibiting the installation of such a plant and do not have the effect of interfering with its intended functional use.

(A) Screening requirements under this subdivision shall not be more restrictive than screening requirements applied to commercial development in the municipality under this chapter or, if the municipality does not have other bylaws except flood hazard, 10 V.S.A. chapter 151.

(B) In this section, "plant" shall have the same meaning as in 30 V.S.A. § 8002 and "screening" means reasonable aesthetic mitigation measures to harmonize a facility with

its surroundings and includes landscaping, vegetation, fencing, and topographic features.

(C) This subdivision (15) shall not authorize requiring a municipal land use permit for a solar electric generation plant and a municipal action under this subdivision shall not be subject to the provisions of subchapter 11 (appeals) of this chapter. Notwithstanding any contrary provision of this title, enforcement of a bylaw adopted under this subdivision shall be pursuant to the provisions of 30 V.S.A. § 30 applicable to violations of 30 V.S.A. § 248."

Act 56 also amended 30 V.S.A. § 248(b) to require that ground-mounted solar facilities comply with such solar screening requirements, "unless the Board finds that requiring such compliance would prohibit or have the effect of prohibiting the installation of such a facility or have the effect of interfering with the facility's intended functional use."

# Adopted Municipal Solar Screening Regulations

In total, eleven municipalities have enacted solar screening ordinances or bylaws pursuant to Act 56, which was signed into law June 11, 2015. They are summarized in the table below. The complete text of all eleven towns' regulations is provided in the Appendix.

RPC	Municipality	Туре	Status	Date	Notes
BCRC	Bennington	<u>Ordinance</u>	Adopted	November 2015	Applies to all ground-mounted solar > 15 kW
ACRPC	Cornwall	<u>Bylaw</u>	Adopted	March 2016	Interim solar screening bylaw (> 15 kW). Sets percentage visibility allowed. Includes municipality-specific setback requirements. Also includes decommissioning requirement.
NRPC	Fairfax	<u>Bylaw</u>	Adopted	September 2016	Applies to all zoning districts and solar generation plants > 15 kW. Requires application, fee, and public hearing.
CCRPC	Hinesburg	<u>Bylaw</u>	Adopted	September 2016	Modifies existing design standards for commercial & industrial uses to incorporate ground-mounted solar > 15 kW.
LCPC	Hyde Park	<u>Bylaw</u>	Adopted	July 2016	Applies to all ground-mounted solar > 15 kW, "or any energy project requiring a CPG from the Public Service Board." Could require a professional landscape plan.
LCPC	Morristown/ Morrisville	<u>Bylaw</u>	Adopted	July 2016	Amended landscaping requirements to require screening from home sites of ground-mounted solar > 15 kW.
CCRPC	Shelburne	<u>Ordinance</u>	Adopted	July 2016	Applies to all solar. Sets percentage visibility allowed. Requires site plan review for solar > 15 kW with decision 45 days after regular meeting at which project is discussed. Excludes solar in certain districts.
RRPC	Tinmouth	<u>Bylaw</u>	Adopted	March 2016	Applies to all solar. Includes municipality-specific setback requirements for > 15 kW systems.
LCPC	Wolcott	<u>Bylaw</u>	Adopted	November 2016	Applies to all ground-mounted solar > 15 kW, "or any energy project requiring a CPG from the Public Service Board."
BCRC	Woodford	<u>Bylaw</u>	Adopted	November 2015	Applies to certain roof-mounted systems in addition to ground- mounted systems. Excludes solar in certain areas. Includes districts- specific setback requirements. Requires site plan review.

RPC	Municipality	Туре	Status	Date	Notes
TRORC	Woodstock	<u>Ordinance</u>	Adopted	June 2015	Similar to Shelburne's solar screening ordinance. Includes municipality- specific setbacks including > 250' distance from cemeteries unless not visible, and excludes or limits solar in certain districts. Prohibits solar > 100 kW on prime ag soils. Includes noise provisions, decommissioning requirements/sureties, and site plan review.

# Application of Solar Screening Regulations in Public Service Board Proceedings

As of the publication of this report, municipal solar screening regulations have come up in seven solar project reviews by the Public Service Board. The municipalities whose regulations and/or recommendations have been discussed are Bennington, Cornwall, Morristown/Morrisville, and Shelburne. The cases to date have all involved larger net metering systems (between 100 and 500 kW). The disposition and status of those proceedings are as follows:

# **BENNINGTON**

Docket: 16-0002-NMP (petition filed 12/31/15; Certificate of Public Good issued 3/17/16) Project Name: Maple Leaf Solar Project Size: 499 kW

The Bennington Select Board submitted a letter of support for the Project, stating that the Project appears to be consistent with the town's solar screening ordinance, its current and proposed Town Plan guidelines related to solar project siting, its zoning bylaws, and the Bennington County Regional Plan. (This was the only reference to the town's solar screening ordinance contained in the Certificate of Public Good.)

Docket: 16-0044-NMP (petition filed 7/19/16; Certificate of Public Good issued 10/19/16) Project Name: ER Bennington Solar 1 Project Size: 500 kW

The Final Order accompanying the Certificate of Public Good (CPG) for the project states, "The Project will comply with Bennington's solar screening ordinance. The Bennington Select Board approved the Project's screening plan as evidenced through a Select Board resolution and letter of support dated March 31, 2016."

Docket: 16-0049-NMP (petition filed 9/28/16; CPG issued 11/17/16) Project Name: ER Paper Mill Project Size: 500 kW

The Bennington Town Planning Commission filed comments on this Project on 06/08/16 indicating that the information in the Petition was not sufficient to render a decision regarding compliance with the Town's solar

screening ordinance. The Town filed comments again on 10/13/16 indicating that it found the CPG acceptable, but encouraging ongoing review of the sufficiency of the vegetative screening.

The Board characterized the Town's concern in the CPG: "Bennington states that the Project will have no adverse impacts on the town, but recommends that the Board require maintenance of the Project's proposed vegetative screening throughout the life of the Project." The Board found, "The Project will generally comply with the screening requirements adopted by Bennington." And the Board adopted, as a condition of the CPG, the Department's and Town's recommendation that the "vegetative screening be installed in accordance with the plans for the Project and maintained for the life of the Project." This condition was agreed to by Petitioner.

# CORNWALL

Docket: 16-0087-NM (active filed 08/31/16 - part of Green Mountain Power's supplemental net metering program) Project Name: Norris Brothers Solar Development Project Size: 100 kW

The Town of Cornwall moved to intervene on 09/28/16. The Town filed comments dated 11/10/16 indicating that applicant provided the Town with a supplemental screening plan that satisfies Cornwall's Interim Bylaw Regarding Screening and Siting Requirements for Ground-Mounted Solar Electric Generation Projects over 15 kW. The Town asked that the Board include the supplemental plan as a condition of the CPG. The CPG has not yet issued.

#### MORRISTOWN/MORRISVILLE

Docket: 16-0007-NM Project Name: Randolph Road Solar Project Size: 150 kW (filed 02/19/16; withdrawn 09/02/16)

The Morristown Planning Director filed comments on 04/07/16 requesting additional vegetative screening for the Project while acknowledging that the Project does not violate any particular portion of the Town Plan. The Board requested a response to Morristown's comments, and the applicant responded that it viewed the additional screening as unnecessary and unduly costly. On 09/02/16, the applicant withdrew the application.

<u>Docket: 16-0091-NM</u> <u>Project Name: Randolph Road Solar</u> <u>Project Size: 120 kW (filed 09/23/16; pending)</u>

This appears to be, essentially, a refiling of the above project by the same name. The Application claimed that there were no applicable screening requirements, but the Town corrected this by filing the adopted language. The Town also indicated that the project complies with the Town screening requirements. The CPG has not yet issued.

#### **SHELBURNE**

Docket: 16-0090-NM (filed 09/22/16; CPG issued 11/22/16) Project Name: Farm Solar Project Size: 150 kW

The applicant provided the Town of Shelburne's Solar Screening Ordinance in its application. On 10/12/16, the Town of Shelburne filed comments supporting the Project. Nothing else is mentioned in the CPG regarding the Town's screening requirements.

Docket: 16-0031-NM (filed 08/03/16; CPG issued 09/08/16) Project Name: APC Properties Project Size: 65 kW

The applicant did not reference the Town of Shelburne's Solar Screening Ordinance in its application. Nothing else is mentioned in the CPG regarding the Town's screening requirements.

# Appendix: Full Text of Adopted Municipal Solar Screening Regulations

# Bennington – Adopted Bylaw

(A) Purpose. In accordance with 24 V.S.A. Sec. 2291, this Civil Ordinance sets forth screening requirements for ground mounted solar electric generation facilities in excess of 15kW(AC) (solar facilities) located in the Town of Bennington. This Ordinance is intended to further the goal of preserving the scenic quality of Bennington consistent with the guidelines set forth in the report entitled "Town of Bennington Scenic Resource Inventory," dated December 2004 and with the goals and policies of the then current Bennington Town Plan. This Ordinance is further intended to ensure that solar facilities do not degrade the natural visual appeal of hillsides, ridgelines, or open fields, and do not encroach visually or otherwise aesthetically upon a natural or historic area or gateway or upon a stream, wetland, or other water resource.

#### (B) Screening Requirements.

1. All solar facilities shall be screened in accordance with the screening requirements set forth in this Ordinance. The screening requirements: a) are consistent with the screening requirements applied to commercial development in all zoning districts as set forth in the Town of Bennington Land Use and Development Regulations; and b) articulate reasonable aesthetic mitigation measures to harmonize a solar facility with its surroundings.

2. All solar facilities shall be sited and screened so that visual impacts of such facilities, including but not limited to, solar panels, transformers, utility poles, fencing, etc., are mitigated as viewed from public streets and thoroughfares, scenic viewpoints, and/or adjacent properties. The Town of Bennington Select Board shall determine screening requirements and associated site issues for each solar facility based upon the standards in this Ordinance. The Select Board may request recommendations from the Town of Bennington Planning Commission, or by other boards or advisory groups appointed by the Select Board.

3. Screening shall provide a year round visual screen, and shall occur on property owned or controlled by the owner and/or operator of the solar facility. A diversity of materials shall be used to create a diverse, naturalized screen rather than a large expanse of uninterrupted, uniform material. Materials may include: trees and shrubs indigenous to the area, and berms, or a combination thereof, to achieve the objective of screening the site.

4. All screening shall be maintained to optimize screening at all times by the owner and/or operator of the solar facility until the solar facility is decommissioned and removed. Plantings that die or become diseased shall be replaced within six months of dying or becoming diseased.

**(C) Recommendations to the Public Service Board.** Pursuant to 24 V.S.A. Sec. 2291, the Town of Bennington may make recommendations to the Public Service Board applying the requirements of this Ordinance to a proposed solar facility. The Select Board is designated to make such recommendations.

**(D)** Condition of Certificate of Public Good. Pursuant to 24 V.S.A. Sec. 2291, the screening requirements of this Ordinance and the recommendations of the Town of Bennington shall be a condition of a certificate of public good issued under 30 V.S.A. Sec. 248 for a solar facility in Bennington.

# Cornwall – Adopted Interim Bylaw

#### I. Authority; Implementation

- A. This interim Bylaw is enacted pursuant to 24 V.S.A. §§ 2291(28), 4414(15), and 4415.
- B. In accordance with 24 V.S.A. §§ 2291(28)(A), 4414(15)(A) and 4415, this interim Bylaw is intended to be no more restrictive of ground-mounted solar electric generation plants that generate over 15 kW of electricity ("solar projects") than the screening requirements governing new commercial development in Cornwall.
- C. The Cornwall Select Board is hereby designated as the municipal body to make recommendations to the Vermont Public Service Board ("PSB") applying this Bylaw to solar projects.
- D. This interim Bylaw has been adopted by the Town of Cornwall due to the sudden changes wrought by Act 56 of the Vermont Legislature in the 2015 session and to set forth a clear, written community standard regarding the aesthetics of solar projects. Act 56 will require a careful re-writing of sections of the Town Plan and study of Cornwall's role in the state's development of solar projects. This interim Bylaw, adopted as an emergency measure, shall be in effect for two years from the date of its adoption by the Cornwall Select Board, or for such extended term as may be allowed by 24 V.S.A. § 4415, while the Cornwall Select Board and Planning Commission study the issue of solar project screening, siting, and setbacks in the Town. The Cornwall Select Board is adopting this interim Bylaw in order to protect the general welfare of Cornwall residents and land owners and to provide for orderly physical and economic growth within the Town, while promoting the development of renewable energy resources and facilities in Cornwall in a manner that limits adverse impacts to the Town's cultural and scenic resources. Cornwall is a rural community with very little commercial development and low to medium density residential housing. Proper screening and decommissioning of solar projects is vital to maintaining the aesthetic quality of the landscape, which is fundamentally nonindustrial.

#### **II. Definitions**

- A. "Field of view" from a given point means the area visible within a photograph taken from that point with either of two camera and lens combinations as follows:
  - A Digital Camera with a Full-Frame Sensor and a 50mm focal length lens
  - A Digital Camera with an APS-C Sensor and a 35mm focal length lens.
- B. "Commercial development" means all construction other than for residential, agricultural, governmental purposes or by a religious institution, which is subject to the review of the Cornwall Planning Commission and/or any Development Review Board created by the Town. "New commercial development" means any construction of new commercial buildings which commenced after the effective date of this interim Bylaw.
- C. "Plant" has the meaning set forth in 30 V.S.A. § 8002(14).
- D. "Project" means a) a ground-mounted solar plant of over 15 kW, including any accessory structures, but excluding utility poles or b) new commercial development within the Town of Cornwall. A project does not include, and this interim Bylaw does not apply to, a solar plant of 15 kW or smaller.
- E. "Screening" means reasonable aesthetic mitigation measures to harmonize a project with its surroundings and includes landscaping, vegetation, fencing, and topographic features and existing structures, all of which must be maintained until a solar project decommissioning is complete or the project is dismantled and the site restored to its preinstallation condition.
- F. "Setback" has the meaning set forth in 30 V.S.A § 248(s)
- G. "Town" means the town of Cornwall, Vermont.
- H. "Visible area" refers to the portion of a project that is not blocked from view by screening.

#### **III. Screening Requirements**

- A. Each project, any part of which is proposed to be constructed within the Town, must be designed and constructed of materials, colors and textures that blend into the surrounding natural or built environment to the maximum extent feasible.
- B. Each project shall incorporate screening that (i) breaks up the visible area of the project so as to prevent unobstructed views of the project; (ii) mitigates adverse aesthetic impacts on views from residences and public highways; and (iii) harmonizes the project with the character of the surrounding landscape and neighborhood.
- C. In addition to the requirements of subsection III B above, any project must incorporate sufficient screening to ensure that the visible area of the project represents no more than 5% of the field of view from any of the following: (i) any point within a residence, (ii), any point within 150 feet of a residence, or (iii) any point on a public highway. By way of example, and not limitation, the image of solar panel front surfaces below was taken with a lens giving an equivalent field of view to that of a 50 mm lens on a 35mm camera. The 7x 10 grid imposed on the image shows the acceptable portion of a solar project visible from the vantage point: only 3.5 grid squares show solar panels out of a total of 70 grid squares, or 5% of the field of view. The remainder of the solar project (including the panels visible edge-on) shown in the photograph would have to be completely screened from the vantage point shown to meet the 5% field-ofview standard. This 5% field of view may be achieved by use of setbacks in conjunction with a planting plan or any other acceptable screening technique. Any person submitting an application for approval of a project covered by this By-law to the Vermont Public Service Board for a Certificate of Public Good shall demonstrate at the time of filing that the proposed project complies with this By-law. This demonstration may be made by providing a photograph or schematic elevation of the proposed site from the nearest public right of way with views of the project site. Simulations indicating the proposed project infrastructure shall indicate the vantage point from which it was made and shall depict proposed panels, racks, inverters, structures, poles, wires and any fencing or screening proposed to be planted or constructed. Any photograph or schematic so submitted shall be at least 8x 10 inches in size and have a 7xl0 grid imposed upon it, as in the example below. Burden of proof that an applicant has complied with this interim by-law shall rest at all times with the applicant proposing such project.



- D. Plantings for screening purposes shall be of sufficient height, density and maturity to achieve the screening standard within three years of planting.
- E. Plantings shall be made in accordance with a screening maintenance plan, included with application for and made a condition of the project's Certificate of Public Good. Such screening maintenance plan shall include at a minimum:
  - a. A schematic showing the location of both existing and planned planting material, earthwork and structures.

- b. A plant material list including all plants to be made as part of the screening, listed by both common and botanical name, the size at installation, expected size at maturity, and expected number of years to maturity.
- c. The name, telephone number, street address, and e-mail address of the person or persons responsible for screening installation and maintenance, the timing of installation, and a plan for ensuring year-round screening maintenance.
- d. A copy of an on-going screening maintenance contract (which may have commercially sensitive price terms redacted). Such contract shall be for a term of no less than three years.
- e. Pre-construction photographic images of the site to document the site's condition prior to planting or project construction. These images shall set the standard for decommissioning.
- F. The screening requirements of this Section apply year-round during the entire period of existence of a project, whether or not a solar project is still in service. Screening must remain in place and be maintained until a project has been fully decommissioned or deconstructed and the site restored to its condition prior to installation or construction.
- G. A project shall be sited within a parcel in such a manner as to make maximum use of preexisting vegetation, hedgerows, hills, ridges, buildings, and other topographical features and structures that naturally screen the project, thereby minimizing the need' for the installation of new screening materials.
- H. Where new screening materials must be installed or planted to ensure compliance with this interim Bylaw, natural, living, native screening materials such as native trees and shrubs shall be used in lieu of artificial screening materials such as walls, fences, and other structures; provided, however, that limited use of artificial screening materials is permissible to the extent that (i) the use of living screening in that area is not feasible, and (ii) the artificial screening is of size, scale and materials that are consistent with the character of the surrounding neighborhood and landscape. All planting must be completed within four weeks of the date on which the solar project first feeds electricity onto the electric grid (the "in service date"), or in the case of new commercial development the completion of principle construction. A solar project with an in-service date falling during frozen ground conditions must complete all plantings within four weeks of the following spring thaw.
- I. Maintenance of landscaping and screening shall be the joint and several responsibility of the developer and property owner on which the project is constructed, maintained and operated. Screening maintenance shall include at a minimum: watering, dead heading, trimming where appropriate, prompt replacement of any diseased, damaged or dead plant material, and control of invasive species, and in the case of any project such obligations shall be a condition of any Certificate of Public Good granted by the PSB, or any successor administrative agency having jurisdiction over such project A landowner hosting a project- whether by using his land, leasing his or her land to a project developer or by grant of easement or other means -- who allows screening vegetation contained in an approved planting plan to die and does not replace or repair such screening within three weeks of written notice by the Town shall be subject to a civil fine of up to the maximum amount allowed by 24 V.S.A. § 4451 or any successor statute for each day that the condition remains unremedied, as well as all Town costs, including but not limited to legal fees, related to enforcement of the same. No payment of a civil penalty under this subsection shall relieve a project developer from responsibility for maintaining screening in accordance with the project's approved screening plan.
- J. Notwithstanding anything in this Bylaw to the contrary, a) no screening shall be placed in the public right of way needed by the Town or by the State of Vermont for road plowing or maintenance, including but not limited to areas needed for installation and maintenance of culverts and ditches, and b) no screening shall be planted or allowed to grow in a manner that casts a shadow over the public right of way from October to May, thereby creating a cold spot on the road. The burden shall be on the project developer to demonstrate that any screening plantings near a public right of way do not and will not interfere with Town maintenance of its roads, ditches and culverts and will not cast such shadows in the winter months.

K. Siting: A project's location in the landscape constitutes a critical element in the aesthetic siting of a project. Poor siting cannot be adequately mitigated. Accordingly, the first element any solar developer must consider is the proposed site's aesthetic impact on the surrounding landscape.

Good solar project sites generally have several of the following characteristics:

- Roof-mounted systems;
- Systems located in close proximity to, or screened by, existing large-scale commercial, industrial or agricultural buildings;
- Proximity to existing hedgerows, evergreen vegetation, berms, hills, or other topographical features that naturally screen some aspects of the proposed solar project;
- Reuse of former brownfields or otherwise impacted property, which otherwise complies with the set-back requirements of this interim Bylaw.

Poor solar project sites generally have several of the following characteristics:

- No natural screening;
- Topography that causes the solar project to be visible against the skyline, or from hiking trails or scenic bicycle routes, public, historic or scenic places, and common vantage points like roads or neighborhoods;
- A location that requires clear-cutting or fragmentation of the working landscape, including forestland, open farm land, and primary agricultural soils, as mapped by the U.S. Natural Conservation Service.
- Rare, threatened, or endangered species habitat, or communities as mapped or identified through site investigation, and core habitat areas, migratory routes, and travel corridors;
- A location in proximity to and interfering with a significant viewshed. Significant viewsheds within the Town of Cornwall include the Town's scenic by-ways and historic districts.

**IV. Setbacks.** This subsection sets minimum Cornwall setback requirements that shall apply to solar projects in the Town approved by the Vermont Public Service Board under 30 V.S.A. § 248 and may be used in conjunction with physical screening to achieve the Town's solar project screening standard.

- A. The minimum setbacks from a State or municipal highway, measured from the edge of the traveled way shall be:
  - i. 200 feet for a facility with a plant capacity exceeding 150 kW; and
  - ii. 100 feet for a facility with a plant capacity less than or equal to 150 kW but greater than 15 kW.
- B. From each property boundary that is not a State or municipal highway:
  - i. 100 feet for a facility with a plant capacity exceeding 150 kW; and
  - ii. 50 feet for a facility with a plant capacity less than or equal to 150 kW but greater than 15 kW.
- C. This subsection does not require a setback for a facility with a plant capacity equal to or less than 15 kW.
- D. No solar project shall be located within 1,000 feet of any other solar project.
- E. The requirements of the setbacks in this section may be decreased to the minimums set forth in Act 56 if the project developer can demonstrate that the topography of a site naturally screens 100% of project view from the boundary line in question and that no portion of the solar project or any associated screening will affect road maintenance or plowing.

**V. Decommissioning.** In order to preserve the aesthetic qualities of Cornwall's rural character and to support the orderly development of the region each solar project in the Town of Cornwall shall be decommissioned at the end of its useful life and the property shall be restored to its pre-project condition, including but not limited to the removal of all above-ground installed infrastructure that is part of the project. Developers of all solar projects and landowners hosting solar projects shall jointly and severally provide the Town with appropriate assurances to guarantee funding exists to decommission the project.

**VI. Good Neighbors.** Solar developers should practice a "good neighbor policy". The siting of the solar project should be done in such a manner that the solar project creates no greater burden on neighboring property owners or public infrastructure than it does on the property on which it is sited.

**VII. Waiver.** Under this interim Bylaw, the Cornwall Select Board upon application may, in any administrative proceeding, support the issuance of regulatory approval for a project not otherwise in compliance with this interim Bylaw, after public hearing preceded by notice in accordance with 24 V.S.A. § 4464. Such support by the Cornwall Select Board shall be granted only upon a finding by Select Board that the proposed project is consistent with the health, safety, orderly development, and welfare of the municipality. The applicant and all abutting property owners shall be notified in writing of the date of the hearing and of the Select Board's final determination.

VIII. Screening Plans; Complaints. Copies of all PSB orders authorizing the construction, operation and maintenance of solar projects are available to the public on the PSB's website (http://psb.vermont.gov/orders). Hard copies of all applicable PSB orders and screening plans related to Cornwall projects shall be maintained for public viewing at the Cornwall Town Clerk's Office during normal business hours. Any person who believes that the screening requirements of a PSB order applicable to a particular Cornwall solar project are not being met may contact the PSB, the Vermont Department of Public Service, or the Cornwall Select Board and make his or her concerns known. Any person who believes that the screening plan requirements for a new commercial development are not being met may contact the Cornwall Select Board and make his or her concerns known.

**IX. Severability.** If any section of this interim Bylaw is held by a court or administrative agency of competent jurisdiction to be invalid, such finding shall not invalidate any other part of this interim Bylaw.

**Effective Date.** This interim Bylaw shall become effective upon the affirmative vote of the majority of the Cornwall Select Board, subject to the notice and public hearing requirements of 24 V.S.A. §4415.

Approved: December 15, 2015

# Fairfax – Adopted Bylaw

#### Section 1: Authority

- 1) This bylaw is adopted by the Town of Fairfax under the authority of Title 24, Chapter 117 §4414(15) to adopt screening standards for Ground Mounted Solar Electricity Generation Plants (GMSP).
- 2) The screening requirements in this bylaw are not intended to be more restrictive than screening requirements applied to commercial development in the Fairfax Development Regulations.
- 3) The Fairfax Select Board is hereby designated as the municipal body to make recommendations to the Public Service Board applying this Bylaw to ground-mounted solar electricity generation plants (GMSP).

#### Section 2: Purpose

The purpose of this bylaw is to:

 Implement the 2013 Fairfax Town Plan, specifically the following goals and policy: Goal: To preserve the natural, cultural, and historic features and activities which define the rural character and scenic beauty of Fairfax. Goal: To conserve energy and encourage the use of renewable resources.

Policy: To encourage and enable public and private installation and application of appropriately sited, small scale renewable energy production systems, such as wind energy conversion and photo voltaic systems.

2) Ensure that the development of GMSPs are harmonized with their surrounding landscape through the implementation of appropriate screening.

#### Section 3: Applicability

- 1) The requirements of this bylaw shall apply to all land in the Town of Fairfax, regardless of zoning district.
- 2) This bylaw shall apply to GMSPs that are greater than 15kW (DC). GMSPs 15kW (DC) and less are exempt from this bylaw.

#### **Section 4: Application Materials and Review Process**

1) Public Hearing. A duly warned public hearing before the Planning Commission in accordance with Title 24, Chapter 117 §4464(a)(2) is required. Upon receipt of a petitioner's notice of filing for a Certificate of Public Good, or for smaller net-metered projects receipt of a copy of a petition for a Certificate of Public Good, the Zoning Administrator shall provide the petitioner with a copy of this bylaw and written notification that a public hearing is required to be scheduled within 30 days. Prior to filing a petition for a Certificate of Public Good or giving notice of filing, an applicant may contact the Fairfax Zoning Administrator to be scheduled for a public hearing before the Planning Commission at any time.

#### 2) Application Materials.

- a. A complete application for a GMSP subject to this bylaw shall be submitted at least seven business days prior to the date of the public hearing.
- b. A complete application shall include:
  - i. The Town of Fairfax GMSP Screening Application Form;
  - ii. The application fee; per fee schedule
  - iii. Two (2) copies of a site plan (containing all information required in Section 3.2(B) of the Fairfax Development Regulations), which shall be prepared in a clear and legible manner, drawn to scale on an 18 inch by 24 inch sheet of paper; and
  - iv. A schedule for the installation of proposed screening, as applicable, including a date when the screening shall be estimated to fulfill its minimum function.

- c. Site plans prepared as part of the petition to the Vermont Public Service Board may be used for application under this bylaw provided that they provide all the information required by this section.
- 3) **Recommendation to Selectboard**. Following the public hearing as required above, the Planning Commission shall provide a written recommendation to the Selectboard on the application's conformance to the provisions of this bylaw, including any recommended performance conditions for the Certificate of Public Good.

#### Section 5: Screening Standards

- 1) In the Growth Center and Mixed Use District, screening shall obscure GMSPs from abutting residential properties.
- 2) Outside the Growth Center and Mixed Use District, screening shall obscure GMSPs from residential properties and public roads in the immediate neighborhood.
- 3) The amount and type of screening shall be sufficient to obscure GMSPs based on the following standards in order of priority:
  - a. Natural terrain and topography shall serve as screening wherever feasible;
  - b. Existing trees, shrubs, evergreens and other vegetation shall be preserved and used as a method for screening wherever feasible;
  - c. New plantings and other landscaping materials installed for the purpose of screening shall be selected to meet seasonal conditions, soil conditions, erosion control, and light on the site. Plant selections shall be non-invasive and rated for an appropriate plant hardiness zone. Vermont native species are preferred.
- 4) Screening shall be installed as quickly as possible following the installation of the GMSP.

#### **Section 6: Definitions**

<u>Ground Mounted Solar Electricity Generation Plant:</u> An independent technical facility that generates electricity from the sun. A group of newly constructed facilities shall be considered one plant if the group is part of the same project and uses common equipment and infrastructure such as roads, control facilities, or connections to the electric grid.

<u>Screening</u>: Reasonable aesthetic mitigation measures to harmonize a facility with its surroundings, including landscaping, vegetation, fencing, and topographic features.

#### Section 7: Severability

If any section of this bylaw is held by a court of competent jurisdiction to be invalid, such finding shall not invalidate any other part of this bylaw.

# Hinesburg – Adopted Bylaws

#### Section 5.6 DESIGN STANDARDS FOR COMMERCIAL AND INDUSTRIAL USES

PURPOSE/APPLICABILITY: The intent of these design standards is to help ensure that new commercial and industrial development respects and bolsters Hinesburg's unique sense of place and rural landscape by guiding the pattern and aesthetics of such development.

These design standards shall apply to non-residential development that requires site plan approval, including ground-mounted solar energy plant/installations with a capacity more than 15kW. These standards shall not apply to: home occupations described in sections 5.1.1 and 5.1.2, accessory apartments as described in section 5.9, commercial agricultural operations, agricultural accessory uses, commercial forest management, and forest management accessory uses. The design standards in section 5.22 also apply to commercial and industrial uses in five village growth area districts (VG, VG-NW, VG-NE, R1, R2); however, where there are any contradictions or inconsistencies, the standards of section 5.22 shall prevail.

5.6.5 Landscaping: With the exception of ground mounted solar installations, all projects shall provide landscaping as outlined in section 4.3.8.

5.6.6 Screening: All projects (including ground mounted solar installations) shall provide visual screening from public roads and adjacent residential uses, if such residential uses are an allowed use for the zoning district where the residence is located. However, visual screening shall not be required for minor use or minor site plan revisions of existing non-residential uses – e.g., change of tenants under the same site plan, new/revised signage or lighting, stormwater control improvements, etc. Development areas to be screened shall at minimum include parking areas, unbroken building facades, dumpsters, and ground-mounted solar arrays. Visual screening is required not to hide development, but rather to ensure it blends with the surroundings. As such, the character of the area shall be considered in determining the type and amount of screening required – e.g., industrial or other highly developed areas will not require as much screening as residential or lesser developed areas. Visual screening shall be designed as follows:

- Screening material must be either vegetation (preferred) or wood; however, other types fencing material (e.g., chain link) may be allowed with appropriate coverings in combination with natural landscaping. Reflective screening materials are prohibited.
- (2) Existing and/or proposed screening or topography shall break up the visual impact of the development (particularly at the perimeter of the project), such that development is visually absorbed into the surroundings.
- (3) Screening shall be maintained and effective year round. Plant materials shall be placed such that they fulfill the landscaping/screening objective within five years of planting.

# Hyde Park – Adopted Bylaws

SOLAR, GROUND MOUNTED OR ENERGY GENERATION PROJECT: a ground mounted solar plant over 15KW, including any accessory structures, or any energy project requiring a CPG from the Public Service Board

**7.17 Ground Mounted Solar and Other Energy Generation Projects** All Ground Mounted Solar and Other Energy Generation Projects shall be reviewed and screened in accordance with Section 10.1(A) of these bylaws.

#### 10.1(A) Planting and Screening for Ground Mounted Solar and Other Energy Generation Projects

The following provisions shall apply to the planting and screening element of all landscape plans submitted for site development plan approval and all applications to the Vermont Public Service Board for ground mounted Solar Projects and other energy projects:

- (1) Planting and screening materials may include native, non-invasive trees, shrubs, lawns, flower gardens, ground covers, cropland, pasture, meadows, wetlands forests, berms, fences and topographical features. Applicants should consult brochures and lists provided by the State of Vermont and the Hyde Park Tree Warden when choosing plantings. A variety of species shall be used rather than a large expanse of uninterrupted uniform plantings. Plantings adjacent to parking areas, drives and roads shall be salt tolerant.
- (2) Natural cover shall be retained on a site to the extent possible and reasonable. Site clearing shall be kept to the minimum required for the construction of buildings, structures, and improvements.
- (3) A buffer may be required between adjoining land uses, public roads and parks, or between a land use and a natural feature to reduce the impact of one use on other uses or features. Buffers may include open space, woodland, landscaped areas, undisturbed vegetated areas, or other types of physical, visual or sound barriers.
- (4) Shade trees may be required near roads, parking areas and buildings.
- (5) The development shall be designed to minimize the visual impact on the surrounding area.
- (6) Plantings shall be maintained in a healthy, growing condition. Where forest, cropland and "natural" areas are included, provision shall be made for their ongoing maintenance.
- (7) The choice and placement of plantings in parking areas and close to access drives and roads shall not interfere with the movement of vehicles and removal of snow.
- (8) Landscape plans shall show the location, species, size, and quantity of plants to be removed and installed. Additional information may be required by the Development Review Board (DRB) under subsection 11 below.
- (9) Plantings and screening materials shall not adversely impact drainage or grading or result in erosion.
- (10) The DRB may require the landscape plan to be prepared by a Vermont Licensed Landscape Architect or professional landscape designer.
- (11) The DRB may require the submission of computer generated photo simulations from all adjacent properties and public rights-of-way from which the application may be visible. Sketch Plan Review Applicants for Solar and other energy projects requiring a Certificate of Public Good, or other state permit or approval, when the application is exempt from acquiring a municipal permits, the applicant shall contact the Zoning Administrator to schedule a time to meet with the Town Planning Commission to allow the Commission to review the proposed landscaping plan with the applicant before the applicant makes

their initial application to the Public Service Board. Recommendations to the Public Service Board. Pursuant to 24 V.S.A. §4414 (15), the Planning Commission and/or Selectboard may make recommendations to the Public Service Board in accordance with the requirements of this section for a Solar Project or Other Energy Generating Facility. Furthermore, the screening requirements of this Bylaw and the recommendations of the Planning Commission and/or Selectboard shall be a condition of a certificate of public good issued under 30 V.S.A. Sec. 248.

# Morristown/Morrisville – Adopted Bylaw

# 639.3g:

Adequate planted screening shall be required that is robust enough to shield any home-site, including a home-site across a roadway, from view of a ground mounted solar array that is greater than 15 kilowatts and requires a Certificate of Public Good from the Public Service Board.

# Shelburne – Adopted Ordinance

#### Solar Electric Generation Facility Siting Standards Ordinance

The scale and siting of future solar electric generation facility installations in the Town of Shelburne and other Vermont communities raises concerns about the negative impacts that such facilities can have on the Town's residential neighborhoods and its scenic, natural, agricultural, and historic resources. As a result, the Shelburne Planning Commission has developed community siting standards for consideration by the municipality and the Public Service Board (PSB). These standards are intended to avoid and mitigate potential impacts of solar electric generation facility development, while promoting new installations in appropriate locations and achieving proportionality with respect to Shelburne's contribution to State-wide renewable energy targets.

#### Authority

This Ordinance is authorized and enacted pursuant to 24 V.S.A. §§ 2291(28), 4414(15), 30 V.S.A. § 248(b)(I)(B), and 24A V.S.A. § 147-1.6.

# Solar Electric Generation Facility Siting and Development

#### Background

Electricity generation and transmission systems powered by solar energy are regulated by the PSB under 30 V.S.A. Section 248 (so-called Section 248 PSB proceedings). These include net-metered distributed energy installations, as well as commercial, utility-scale generation, transmission and distribution facilities. Pursuant to Section 248, the Shelburne Planning Commission, the Chittenden County Regional Planning Commission, and the Shelburne Selectboard will receive notice of a Certificate of Public Good (CPG) application for any such solar electric generation facility proposed to be located in Shelburne. In determining whether to provide a proposed solar electric generation facility project with a CPG, the PSB must give "due consideration" to the recommendations of the municipal and regional planning commissions, the Shelburne Selectboard, and the land conservation measures contained in Shelburne's Comprehensive Plan. *See 30 V.S.A.* §248(b)(I).

The PSB must also determine whether a proposed solar electric generation facility will have an "undue adverse effect" on aesthetics, historic sites, air and water purity, the natural environment, the use of natural resources, and the public health and safety, with due consideration having been given to the criteria specified in 10 V.S.A. § 1424a(d) (outstanding resource waters) and the Act 250 criteria set forth in 10 V.S.A. §6086(a)(l) through (8) and 9(K). See 30 V.S.A. §248(b)(5).

To determine whether a proposed solar electric generation facility will have an adverse impact on the considerations set forth as identified in §248(b)(5) above, PSB Rule 5.108(A) requires the PSB to conduct the so called" *Quechee analysis*" to assess whether a proposed solar electric generation project would have an adverse impact by virtue of being "out of character with its surroundings," and if so, whether the adverse impact qualifies as "undue." See *Rule 5.IOB(A)*. The PSB therefore must consider "the nature of the project's surroundings, the compatibility of the project's design with those surroundings, the suitability of the project's colors and materials with the immediate environment, the visibility of the project, and the impact of the project on open space." See *Rule 5.IOB(A)(1)*.

A solar electric generation facility project's location, size, and visibility, together with the context of the surrounding land uses, will be relevant in the PSB's consideration of whether the proposed project would have an undue adverse impact. Among other things, the *Quechee* analysis requires the PSB to consider whether the proposed project would violate a *"clear written community standard"*. Therefore, the effective participation of the Town of Shelburne in the PSB's Section 248 review process requires the development of specific community standards in order to ensure that local conservation and development objectives are appropriately considered and weighed by the PSB in connection with its review of a CPG application for a solar electric generation facility project pursuant to Section 248. Toward that end, the Shelburne Planning Commission has developed the

following specific community 'standards for the siting and development of a solar electric generation facility in the Town of Shelburne.

# Shelburne Community Standards Regarding Solar Electric Generation Facilities

#### Purpose

The purpose of these community standards is to regulate the development of solar electric generation facilities in the Town of Shelburne. These policies, goals and requirements should also be considered in undertaking municipal solar electric generation facility projects and programs, in enacting or updating the Town of Shelburne's zoning bylaws and the Town of Shelburne's Comprehensive Plan to address solar electric generation facility development and in connection with the review of new or upgraded solar electric generation facilities and systems by the Town of Shelburne and in Section 248 PSB proceedings.

#### Goals

Promote protection of scenic viewsheds in Shelburne by promoting effective screening requirements to shield neighboring properties, where possible, from direct visual connection with solar electric generation facilities.

#### Policies

- 1. New solar electric generation facility development in the Town of Shelburne must conform to adopted community standards for energy facility siting and design to receive municipal support or approval.
- 2. Encourage small-scale and appropriately sited development of renewable energy generation facilities. Such encouragement should consider, but not be limited to the prevention of:
  - a. Undue adverse visual impacts on adjacent properties, scenic corridors and Town of Shelburne view sheds;
- 3. The Town may participate before the PSB in Section 248 review of new and upgraded solar electric generation and transmission facilities as necessary to ensure that adopted community standards are given due consideration in proposed solar electric generation facility development.
- 4. The Town of Shelburne, in collaboration with the Chittenden County Regional Planning Commission, neighboring communities and utilities serving the Town, will participate in long range utility planning to ensure that adopted Comprehensive Plan policies and written community standards are identified and considered in future renewable energy planning and development activities.

# General Standards for Solar Electric Generation Facilities

The Town of Shelburne supports the following appropriately sited types of solar electric generation facility development. For purposes of this ordinance, "appropriately sited' shall be defined as renewable energy generation facilities which satisfy the site plan application and review process, as well as the setback, screening and related aesthetic standards described herein. *Small-scale* renewable energy projects are defined as those that generate up to 15 kilowatts (kW) of power. *Community-scale* renewable energy projects generate greater than 15 kW up to 1 megawatt (Mw), and *utility-scale* renewable energy projects generate over 1 Mw. Small and community scale projects shall be considered *locally sourced*, meaning the energy produced by such facilities is produced and used in Vermont. Utility projects generate power that is available to the broader market. Generated kW power shall be measured in direct current (DC).

#### Designation of Municipal Body to Make Act 248 Recommendations

The Town of Shelburne Selectboard is hereby designated as the authorized municipal body to make recommendations in connection with any applications subject to proceedings under 30 V.S.A. §248 to which this ordinance may apply.

#### **Use Classification**

A small-scale solar electric generation facility intended solely to serve an individual residence or business shall be considered an accessory structure allowed in all zoning districts in which accessory structures are allowed. Larger

scale renewable energy generation projects, including community-scale and utility-scale solar electric generation facilities; transmission and distribution lines; group, net-metered facilities; substations; and other projects requiring a CPG from the PSB shall be reviewed by the Selectboard utilizing the standards and requirements set forth herein prior to or contemporaneously with the PSB consideration of such project.

#### Prioritization

The Town of Shelburne will support the following types of renewable energy development in order of priority:

- Increased system capacity through state, utility and municipally-supported energy efficiency and conservation programs.
- Individual and small-scale renewable and distributed energy projects.
- In-place upgrades of existing renewable electric generation facilities, including transmission and distribution lines and substations.
- New community-scale and renewable and distributed energy projects.

#### **Natural and Scenic Resources**

Land development in the Town of Shelburne is evaluated and sited so as to avoid and/or minimize impacts to the following natural and scenic resources as identified in Shelburne's Comprehensive Plan and Zoning By-Laws:

- Land in active agricultural use,
- Primary agricultural soils,
- Surface waters, wetlands and associated setback and buffer areas,
- Lakeshore setback and buffer areas,
- Historic districts, sites and structures (as listed in Vermont State Historic Register or elsewhere in applicable Town of Shelburne zoning districts), Scenic views and vistas (as identified in Shelburne Comprehensive Plan's Significant Views Map), and
- Conserved land on adjacent parcels.

**Burial.** Utility controls and on-site line connections shall be wireless or buried, except at the point of connection with distribution lines, and designed and located so as to minimize disruption to wildlife habitat, agricultural lands, and scenic areas.

**Signs.** Solar electric energy generation facilities and structures shall not be used for display or advertising purposes. Except for owner and manufacturer identifications and safety warnings that do not exceed three (3) square feet in total area, all signs are prohibited on ill such structures. Signs shall not be higher than 10 feet from the average grade of the surrounding ground to the highest point of the sign or supporting structure, whichever is higher.

Lighting. Solar electric generation facility lighting should be the minimum necessary for site monitoring and security, should be cast downward, and must not result in light trespass or glare on adjoining properties.

Access to Solar Electric Generation Facilities. Solar electric generation facilities shall be sited in a manner that avoids or, to the greatest extent physically feasible, minimizes the need for new and extended access roads and utility corridors. Facility access should be provided from existing access roads where physically feasible, and access roads and utility corridors should be shared wherever feasible. Identified impacts to public highways from solar electric generation facility construction, operation and maintenance, including highway improvements required to accommodate the facility, shall be mitigated by the developer.

#### **Application Procedure**

Applications for site plan review pursuant to this ordinance shall be received by the Shelburne Planning and Zoning Office, forwarded to the Town Manager, and directed to the Selectboard, which shall, when the

application is deemed complete, consider the application at a regularly scheduled meeting. The applicant or the applicant's representative shall attend the meeting. The Selectboard shall render a decision within forty-five (45) days of the conclusion of the meeting at which the application is considered.

Site Plan Review For Solar Electric Generation Facilities.

Site Layout and Design. Sites planned for or intended to accommodate solar electric generation facility development, including the location of existing and planned commercial and net-metered generation facilities and utility corridors, shall submit to the Selectboard a site plan showing the proposed solar electric generation facility. In determining whether to issue a recommendation in support of or against a solar electric generation facility at the Public Service Board, the Selectboard shall ensure that the size, scale, arrangement and appearance of the proposed solar electric generating facility is compatible with its setting and context, and that the facility will not have an undue adverse aesthetic impact on site features or on adjoining properties or its surroundings. To achieve a positive recommendation from the Selectboard, the applicant may be required to meet conditions to ensure that the solar electric generation facility is compatible with its setting and context to obtain a positive recommendation from the reviewing board. To obtain a positive recommendation, the reviewing board may impose the following conditions:

- (a) The Selectboard may require increased setback distances from property lines or public rights-of-way in relation to the height, scale, massing or density of development, and landscaping or screening to mitigate the visual impacts of development.
- (b) Structures should be architecturally and visually compatible with historic structures on the site and in the vicinity of the development.
- (c) The Selectboard shall require the submittal of a visual impact analysis for community and utility-scale solar electric generation facility projects and may also require such an analysis for smaller projects where adverse aesthetic impacts are in question. The visual analysis shall address views from sensitive viewing areas and adjoining properties and shall explain measures taken by the developer to mitigate impacts of the project. Particular efforts should be made to prevent a project from becoming the focal point of scenic views.
- (d) Solar electric generation facilities with a generation capacity of greater than 100 kW shall not be located within the Village Overlay and Design Review District or on any of the properties set forth on Table 1.4.1 to the Shelburne Road Form-Based Overlay District.
- (e) The installation of solar electric generation facilities in the Village Overlay and Design Review District or on any of the properties set forth on Table 1.4.1 to the Shelburne Road Form-Based Overlay District shall be done in accordance with current Secretary of the Interior's Standards for Rehabilitation.

**Proposed Site Plan.** The site plan of the entire solar electric generation facility site, indicating all improvements, including landscaping, utility lines, screening, and roads, at the same scale as or larger than the Existing Conditions Plan shall show the following:

- (a) Proposed facility location and any appurtenances. It shall indicate property boundaries and setback distances to the base(s) of the solar electric generation facility's platform and the nearest corners of each of the appurtenant structures to those boundaries, and dimensions of all proposed improvements.
- (b) Proposed spot elevations at the base of the proposed solar electric generation facility.
- (c) Proposed utilities, including distance from source of power, sizes of service available and required, locations of any proposed utility lines.
- (d) Any direct or indirect wetlands alteration proposed.
- (e) Detailed plans for drainage of surface and sub-surface water, to control erosion and sedimentation both during construction and as a permanent measure.
- (f) Plans indicating locations and specifics of proposed screening, landscaping, grading, ground cover, fencing, lighting, signs and additional information that may be required.
- (g) Site plans shall incorporate landscaping and screening which preserves and incorporates existing vegetation, is suited to existing site conditions, enhances development and features unique to the site,

integrates the development and site with surrounding properties, and serves to buffer or screen the solar electric generation facility from neighboring properties or public rights-of-way.

(h) The reviewing board may also require a three (3) year landscaping plan.

#### Landscaping and Screening Requirements For Solar Electric Generation Facilities.

**General.** Ground mounted solar electric generation facilities shall be screened from view from public roads and sidewalks. Screening shall be treated as an integral part of the Section 248 application review process. The use of landscaping and natural screening materials is encouraged, and may be required to lessen the visual impact of such facilities. The use of existing vegetation and natural landscaping materials is the preferred method of screening. Applicants shall ensure that any required new landscaping will preserve the character of the existing neighborhood (i.e. vegetation should be indigenous to the area, large enough to do well, and planted at intervals in keeping with other neighborhood foliage). Existing site vegetation shall be maintained to the greatest extent practicable. The Reviewing board may require undertakings for the care and maintenance of plantings, including removal of dead or diseased trees or shrubs. The Selectboard may approve fencing, if it determines the aforementioned preferred methods are impractical. The Selectboard may require increased setbacks, buffers, landscaping, screening or building design modifications to mitigate the physical and visual impacts of ground-mounted solar electric generation facilities on adjoining properties, and to maintain the historic appearance and integrity of historic structures. Landscaping plans shall be prepared by a landscape architect, master gardener, nursery professional, arborist, professional landscape designer, or other qualified landscape professional.

Ground mounted solar electric generation facilities shall be screened from adjacent roads and adjoining residential uses. Vegetation used for this purpose may include both conifers for winter screening and deciduous plants to provide summer shade and to create an overhead canopy. At planting, conifers shall be at least five (5) feet tall and deciduous trees shall be at least 2.5 inches in diameter at breast height, and shall be planted no closer than 40 feet from the traveled portion of the adjoining road so as to prevent winter salt kill. Screening may also include features such as berms, low walls or fences, where such features are incorporated into an overall landscape design. Screening may also be achieved by placing smaller buildings between the solar electric generation facility and the road or adjoining residential uses.

It is not expected that screening will create an impenetrable visual barrier with respect to vehicular traffic, pedestrian or other travelers on the road or lands adjacent to the solar electric generation facility. Rather, for those temporarily traveling through the area, the objectives of screening are:

- 1. To create a pleasant streetscape,
- 2. To create a visual edge for the public space along the street, and
- 3. To prevent unobstructed views of the solar electric generation facility.

It is expected that screening will create a year-round visual barrier screening the ground mounted solar electric generation facility from residences within 500 feet of the project. No more than 20% of the solar electric generation facility shall be visible from any part of a residence and its immediate surrounding ½ acre, nor shall more than 60% of the solar electric generation facility be visible from outbuildings or other residential property within 500 feet of the solar electric generation facility. Solar electric generation facilities and accessory structures are to be designed and constructed of materials, colors, and textures that blend into the surrounding natural or built environment to the extent feasible.

Plantings shall be of sufficient height, density and maturity to achieve the aforementioned screening standard from the day of planting, and shall be maintained so as to provide the appropriate screening standard set out above. Maintenance of landscaping and screening shall be the responsibility of the property owner. Dead, dying or diseased plants shall be promptly removed and replaced as soon as possible, consistent with good landscape planting practices.

The screening standards set forth above shall be achieved entirely within the property containing the solar electric generation facility, and not on "borrowed" lands or lands of any affected property owner. Whenever possible, healthy native vegetation shall be preserved and native plantings shall be used and incorporated into the screening to prevent an artificial look. Clear cutting of the property is specifically discouraged.

#### Severability

If any portion of this ordinance is held unconstitutional or invalid by a competent court or entity with jurisdiction, the remainder of this ordinance shall not be affected.

# Tinmouth – Adopted Bylaw

#### SECTION 924 – COMMERCIAL, GROUND-MOUNTED SOLAR ENERGY INSTALLATIONS

Size of installation	From odgo of state or	From Droporty Poundarios
SIZE OF INSTANALION	From edge of state of	From Property Boundaries
	municipal highway	
Greater than 150kW	100 feet	50 feet
Less than or equal to 150kW	100 feet	50 feet
Less than 15 kW	No requirement	No requirement

A. Setbacks. 30 V.S.A. § 248(s) states the following Minimum Setbacks for Ground-Mounted Solar:

In accordance with 30 V.S.A. §248(s), the Board of Adjustment may approve a setback smaller than the minimums stated in 30 V.S.A. § 248(s) if agreed to by the applicant and each owner of property adjoining the smaller setback.

B. Screening. In accordance with 30 V.S.A. §248(b)(1) and 24 V.S.A. §4414 (15) and 24 V.S.A. §2291, the proposed development shall be landscaped or screened with evergreen plantings to ensure compatibility with adjoining areas. Solar arrays or structures shall be screened or landscaped to mask visibility from roads and/or adjoining properties. Natural screening using existing landscape features is encouraged. Any dead or diseased planting shall be replaced as soon as seasonally possible.

# Wolcott – Adopted Bylaw

Power generation and transmission facilities that are regulated under 30 VSA §248 by the Vermont Public Service Board, except that all ground mounted solar and other energy generation projects shall be reviewed and screened in accordance with Section 4.40 of these bylaws.

Section 4.40 (9) Landscaping and Screening for Ground Mounted Solar and Other Energy Generating Projects: the following shall apply to all applications to the Vermont Public Service Board for ground mounted solar projects and other energy projects in the Town of Wolcott, and shall be included as a condition of a certificate of public good as issued under 30 V.S.A. Sec. 248.

**a. Rural, Route 15 Corridor, Shoreland and Fisher Bridge Enterprise Districts:** Ground Mounted Solar and Other Energy Generating Projects shall be landscaped and screened in accordance with Section 4.40(5) Perimeter Landscaping. For purpose of calculating applicability with required number and type of planting, the total area involved, including greenspace between panels and panel rows, shall be considered the "footprint" and the outermost area of the installation shall be considered the building perimeter.

**b. Village and Village Core Districts:** Ground Mounted Solar and Other Energy Generating Projects shall comply with the streetscape standards outlined in Section 4.40(2), and shall be screened in accordance with Section 4.40(4) Mechanical/Utility Screening.

**c. Fencing:** In all districts, solid privacy fences, chain-link fencing, or similar utilitarian fencing may only be used in association with Ground Mounted Solar and Other Energy Generating Projects in conjunction with landscaping. Such fenced areas shall be subject to the requirements of Section 4.40(5) Perimeter Landscaping, including both side and front yards within the Village and Village Core Districts. Note that other non-residential structures in the Village and Village Core District are required to abide by specific Site Layout and Design Standards which cannot be met by Ground Mounted Solar and Other Energy Generating. Therefore, the Public Service Board shall not consider the requirement for perimeter screening to be more restrictive than screening requirements applied to commercial development.

**d. Other Provisions:** Cultivars shall be selected in accordance with Section 4.40(1). The Public Service Board is strongly encouraged to require applicants for a certificate of public good to demonstrate that the most recent version of the "Recommended Trees for Vermont Communities: A guide to Selecting and Purchasing Street, Park, and Landscape Trees," published by the Vermont Urban and Community Forestry Program, has been used to select appropriate cultivars. Alternative Environment Enhancing Landscaping may be approved in accordance with Section 4.40(7). However, prior to approving such alternatives, the Public Service Board should seek the opinion of all adjacent property owners, and the Wolcott Selectboard. All plantings shall be maintained and guaranteed in accordance with Section 4.40(7).

#### Section 2 – Specific Definitions:

<u>Solar, Ground Mounted or Energy Generation Project:</u> a ground mounted solar plant over 15KW, including any accessory structures, or any energy project requiring a CPG from the Public Service Board.

# Woodford – Adopted Bylaw

#### 11.11 SOLAR FACILITY SITING & DEVELOPMENT

Electricity generation and transmission systems powered by solar energy are regulated by the Public Service Board (PSB) under 30 V.S.A. Section 248 (Section 248 PSB proceedings). The Woodford Planning commission, the Bennington County Regional Commission, and the Woodford Select Board are to receive notice of a Certificate of Public Good (CPG) application for a proposed solar facility in Woodford. In determining whether to provide a proposed solar project with a CPG, the PSB must give due consideration to the recommendations of the municipal and regional planning commissions and the Woodford Select Board. See 30 V.S.A. 248(b)(1), 30 V.S.A 248(B)(5), PSB Rule 5 108(A) and Rule 5. 108(A)(1) for reference.

#### **Energy Facilities (Purpose)**

The purpose of these community standards is to promote the development of renewable energy resources and energy facilities in Woodford, while limiting adverse impacts of such development, environmentally sensitive areas, and our most highly-valued natural, cultural and scenic resources consistent with related development, resource protection and land conservation policies included elsewhere in the Town Plan and Bylaws. These policies should also be considered in undertaking municipal solar energy projects and programs, in enacting or updating the town bylaws to address renewable energy development, and in the review of new or upgraded energy facilities and systems by the town and in section 248 PSB proceedings.

#### **ENERGY FACILITIES STANDARDS**

- 1. Ground installations, to the extent functionally feasible, shall be installed in locations that minimize their visibility, such as a side or rear yard, and be screened from view of public rights-of ways and adjoining properties.
- 2. Roof or building mounted systems may be placed on new construction, non-historic buildings and additions.
- 3. Solar panels and other roof-or-wall-mounted structures shall not be placed on primary building facades, including street-facing wall or roofs, unless there is no other suitable location on the site or structure.
- 4. Roof or building-mounted systems on a historic building shall not physically damage the structure, alter its character-defining features, including existing roof lines or dormers, nor obstruct significant architectural features, such as overlaying windows or architectural detailing. Attachment points must be minimized and allow for future removal.
- 5. Roof-mounted installations shall be placed below and behind parapet walls and dormers, on rear-facing roofs where feasible. Panels are to be mounted flush with and at the same angle as the existing roof surface and, on flat roofs, set back from the roof edge to minimize visibility.

**Setbacks:** Except for transmission and distribution lines and utility connections, all energy facilities including substations, commercial, utility and net-metered generation facilities and accessory structures - must meet minimum setback requirements for the land use districts in which they are located.

In addition, renewable energy facility setback distances from property lines, or from occupied structures in existence at the time of application, should be increased as necessary to mitigate identified aesthetics, historic sites, air and water purity, the natural environment, the use of natural resources, and the public health and safety, with due consideration having been given to the criteria specified in 10 V.S.A. 1424 (a)(d) (outstanding

resource waters) and Act 250 criteria set forth in 10 V.S.A. 6086(a)(1) through (8) and 9(k) and nuisance or adverse impacts upon adjoining property owners.

#### Siting

- 1. Sites planned for or intended to accommodate solar energy facility development, including the location of existing and planned commercial and net-metered generation facilities and utility corridors, are to be shown on site development and subdivision plans reviewed by the town.
- 2. Solar energy facilities and accessory structures are to be designed and constructed of materials, colors, and textures that blend into the surrounding natural or built environment to the extent feasible.
- 3. The solar facility should not extend above the background horizon line.
- 4. The solar energy facility should be screened from view through the use of existing topography, structures, vegetation or strategically placed tree, shrub, ground cover plantings that do not block distant views. Onsite mitigation e.g., through facility clustering, relocation, buffering and permanent conservation easements is preferred. Off-site mitigation measures should be required where on-site mitigation is not physically feasible.

# **Upland Exclusion Areas**

Any energy development over 1000 feet in elevation shall not result in undue adverse impacts to surface waters, ground water and mapped source protection areas. Core forest areas, inventoried wildlife habitat and travel corridors, and mapped scenic resources.

#### **Hazard Areas**

With the exception of transmission and distribution lines, ground-mounted solar energy facilities that are not attached to existing or permitted structures shall not be located in:

Special Flood Hazard Areas (SFHAS), including floodways and floodway fringes identified on Flood Insurance Rate Maps (FIRMS) for the town.

Any allowed facility shall not be located within these areas must meet minimum National Flood Insurance Program (NFIP) requirements, as reviewed and permitted by the municipality or the state.

Shall not be located in river corridors identified on Woodford Agency of Natural Resources maps.

Shall not be located on steep slopes, with natural (pre-development) grades in excess of 25%.

Shall not be located where there is significant wildlife habitat, including without limitation, deer wintering areas, core habitat areas, and travel and migratory corridors, as identified from state inventories and data sets, local inventories, and site investigations associated with facility development.

The setback for a ground-mounted soar facility from surface waters and wetlands shall be 75 feet.

# Forest land

Ground-mounted solar energy facilities, including transmission and distribution lines, accessory structures and access roads shall not be located along existing tree lines, or on otherwise disturbed forest land, as necessary to avoid the fragmentation of, and to minimize and mitigate adverse impacts to productive timber strands and critical forest habitat.

# **Designated Scenic Areas**

Ground-mounted solar energy facilities sited within or as viewed from scenic areas shall not create a significant physical, visual, audible, or historically incongruous or incompatible intrusion in these areas. New facilities, including generation facilities greater than 100 KW substations and transmission lines, are specifically prohibited within or as viewed from these areas unless significant associated impacts can be avoided, for example through facility siting, screening or line burial.

# Signs

Energy generation facilities and structures shall not be used for display or advertising purposes. Signs, except for owner and manufacturer identifications and safety warnings that do not exceed one square foot, are prohibited on all structures. Substation lighting should be the minimum necessary for site monitoring and security.

# Woodstock – Adopted Ordinance

# TOWN OF WOODSTOCK SUPPORTING PLAN STANDARDS FOR THE PROTECTION OF SCENIC BYWAYS AND VISTAS & THE SITING OF SOLAR ENERGY FACILITES

#### WOODSTOCK RESOURCES, VALUES & PUBLIC INTERESTS

#### **OPEN SPACE & TRADITIONAL DEVELOPMENT PATTERN**

The Town and Village of Woodstock Comprehensive Plan, 2014 (hereinafter "Town Plan") states in its Scenic Statement that "the scenic rural character, so vital to our lifestyles, consists of a great variety of features. Densely settled areas provide focal points of human activity, clearly defined within the space beyond. This space provides fields, mixed forests and wetlands which are linked together by brooks, rivers, and both paved and unpaved roads. Distant views of Ascutney, Killington, and the Green Mountains contrast with a foreground of open and wooded ridgelines and valley floors. The scenic corridor of the Ottauquechee River provides a second visual focal point. Scattered cemeteries, historic bridges, farmscapes, and stone walls give us a perspective on our rich heritage ... For residents of the small farms and private homes, the beauty and function of this landscape is an integral part of their lives." "The Town Plan also recognizes the "prime importance of the role that open space plays in the quality of life and character of Woodstock. The value and contribution of open space in Woodstock flow not only from its open fields and meadows, but also from its wooded hillsides, forests, stream corridors and other natural vistas." Town Plan, p. 77.

As a result, the Town Plan concludes that "[p]rotecting and maintaining Woodstock's open spaces is vital to the community's economic, social and environmental future.

Maintaining the economic base provided by both tourism and agriculture in the Town requires a generous resource of scenic beauty in the countryside, in the Village, and in the areas adjacent to the Village and hamlets of Woodstock. The primary threats to the rural character of the town and its open spaces are natural reforestation of previously farmed fields, and development, both residential and commercial, that is insensitive to the agrarian heritage and pastoral aesthetics that have historically defined the unique attributes of Woodstock." Id.

#### SCENIC BYWAYS LINKING TOWN CENTERS

"U.S. Route 4 (a major East-West artery) and State Routes 12 and 106, are well-traveled corridors leading to and from Woodstock. Currently the character of these roads varies from residential and commercial development to relatively sparsely populated open spaces. Recent years have seen increased development along these routes that pass directly through the center of Woodstock Village and the Town's hamlets. Resulting loss of scenic differentiation between the Village and hamlets and the rural countryside that surrounds them could unduly impact the aesthetic and environmental quality of the entire town." Id.

The Town Plan therefore directs that Woodstock should establish clear definition of commercial and open space zones along Routes 4, 12, and 106 which should include provisions for scenic vistas, preservation of agricultural lands, river corridor conservation zones, and creative use of setback requirements to create a clear "greenway" through which travelers to Woodstock would move. <u>Id.</u>

#### WETLANDS AND SENSTIVE ECOLOGICAL AREAS

The Town Plan recognizes that wetlands are one of the earth's most productive ecosystems. They provide travel corridors and critical habitat for wildlife, including food, cover, breeding and nesting grounds. Wetlands often lie

at the headwaters of rivers and streams and help maintain flow during periods of drought. Wetlands provide open space and aesthetic qualities in addition to recreational and educational opportunities. Town Plan, p. 71.

Only 0.8 % of Windsor County is covered by wetlands, the lowest of any county in Vermont. Woodstock has relatively few wetland areas. The numerous small wetlands scattered throughout Woodstock provide functions and values that maintain the ecological integrity of our natural environment and provide many other benefits to our community. The Town Plan regards the protection of these limited, life-sustaining resources and wildlife access to them as critical to preserving the biodiversity of Woodstock's fauna and flora. Moreover, many of Woodstock's wetlands provide temporary storage of flood waters, thereby decreasing adverse effects on downstream communities and habitats while reducing the severity of flooding within our own town. They also recharge groundwater and improve water quality by retaining sediments, nutrients, and pollutants that otherwise contaminate surface waters. Accordingly, ground-mounted solar arrays are not compatible with wetlands and ought not to be located within or close to them or other sensitive natural areas, such as vernal pools. <u>Id.</u>

# ADVENT AND GROWTH OF SOLAR DEVELOPMENT PROJECTS

The contribution of solar energy to Woodstock's total energy supply is growing. More structures are being sited, oriented and designed to incorporate passive solar construction techniques for space heating and natural lighting. Passive solar building design and solar thermal heating systems can significantly increase energy efficiencies and reduce costs. Until recently, the upfront costs of solar photovoltaic (PV) systems were generally too costly for the average homeowner, but emerging technologies and state, federal and utility incentives have made grid connected net-metered PV systems more affordable.

Technological advances, including the incorporation of photovoltaic components in roofing and siding materials, may make solar power an even more viable source of electricity in the near future.

The scale and siting of some proposed and/or existing solar installations in Woodstock and other Vermont communities, have raised concerns about the impacts that such facilities can have on the town's residential neighborhoods, its historic village and hamlet area, its scenic byways, and its scenic, natural, agricultural, and historic resources, such as the Marsh Billings Rockefeller National Park, the Billings Farm, U. S. Route 4 and the Scenic Ridgetop Overlay District. Woodstock's scenic character is defined by traditional, compact townscapes and open rural landscapes. Woodstock residents are proud of this character and the Town benefits from the tourism it attracts. The Town's scenic landscapes can be affected by energy-related facilities and activities.

Energy-related facilities can significantly change the aesthetic character of the Town's landscapes. In particular, large, ground-mounted solar array projects raise concerns, which the Town Plan identifies as in need of Town attention when reviewing applications for development along these corridors:

- 1. Loss of scenic vistas and open wooded hillsides;
- 2. Loss of the scenic differentiation between town and countryside;
- 3. Loss of natural habitats along stream/river corridors;
- 4. Loss of prime agricultural lands and flood plains;

Woodstock has previously acted to protect it historical, agricultural, open space, and scenic resources. Woodstock established a Scenic Ridgeline District in 1992 in response to the adverse visual, impacts of development on the scenic qualities of the Town's prominent ridges and hillsides, which, contribute significantly to the Town's aesthetic identity. Large, ground-mounted solar arrays are incompatible with the scenic and open space values

that the Scenic Ridgeline District was designed to protect. The Town Plan recommends that the Woodstock take steps restrict inappropriate development within the Scenic Ridgeline District. Town Plan, p. 79.

Woodstock has also created two Design Review Districts (Village and South Woodstock) the primary purpose of which is to preserve and protect the historic character of the village. The Town Plan recognizes that alternative energy projects, such as solar arrays, present a particular conflict with historic structures and land use patterns. As a result, the Town Plan places the primary interest of its energy policy within the Design Review District upon energy conservation and proper insulation/weatherization techniques before considering energy production devices. The Town Plan directs that alternative energy development within the Design Review District should focus on geothermal and recognizes that alternative energy devices, such as ground-mounted and roof top solar arrays do not fit the historic character of structure or neighborhood. Accordingly, the Town Plan instructs that solar arrays in the Design Review District should be located in private areas and out of the public view. Town Plan, p, 36-37.

#### DEVELOPMENT OF MUNICIPAL SUPPORTING PLAN

As a result, the Select Board has developed these Supporting Plan Standards for the Protection of Scenic Byways and Vistas & the Siting of Solar Facilities ("the Standards") as a supporting plan pursuant to 24 V.S.A. §4432. Woodstock will support the siting of appropriately scaled renewable energy resources in the Town, villages, and hamlets that avoid or minimize impacts to areas of high public value. Toward these ends, the Town will seek opportunities for early involvement in the planning *I* permitting process including Act 250 proceedings and proceedings before the Public Service Board, in order to avoid and mitigate potential impacts of development along Woodstock's Scenic Byways and solar facility development, while promoting new installations in appropriate locations.

The Town Selectboard will participate in Act 250 hearings and PSB hearings for renewable energy projects (which require a Certificate of Public Good) proposed to be located in Woodstock. The Town will also assess potential impacts to areas of high public value from net metering 6 projects and will participate in PSB proceedings if warranted.

Woodstock intends the policies and maps referenced herein to articulate clear written community standards for use in Act 250 and PSB §248 proceedings. In Act 250 proceedings and those before the PSB, the Town will utilize these Standards in support of the Town's position with respect to development along designated scenic byways and with respect to renewable energy projects.

Electricity generation and transmission systems powered by solar energy are regulated by the Public Service Board (PSB) under 30 V.S.A. Section 248 (Section 248 PSB proceedings). These include net metered distributed energy installations, as well more commercial, utility-scale generation, transmission and distribution facilities. The Woodstock Planning Commission, the Two Rivers Ottauquechee Regional Commission, and the Woodstock Selectboard will receive notice of a Certificate of Public Good (CPG) application for a proposed solar facility in Woodstock Town. In determining whether to provide a proposed solar project with a CPG, the PSB must give due consideration to the recommendations of the municipal and regional planning commissions, the Woodstock Selectboard, and the land conservation measures contained in the Woodstock Town Plan. See 30 V.S.A. §248(b)(1).

The PSB must also determine whether a proposed solar facility will have an undue adverse effect on aesthetics, historic sites, air and water purity, the natural environment, the use of natural resources, and the public health and safety, with due consideration having been given to the criteria specified in 10 V.S.A. §1424a(d) (outstanding resource waters) and the Act 250 criteria set forth in 10 V.S.A. §6086(a)(1) through (8) and 9(K). See 30 V.S.A. §248(b)(5).

To determine whether the proposed solar energy facility would have an adverse impact on the considerations set forth identified in §248(b) (5) above, PSB Rule 5.108(A) requires the PSB to conduct the so-called "Quechee analysis" to assess whether a proposed solar project would have an adverse impact by virtue of being "out of character with its surroundings," and if so, whether the adverse impact qualifies as "undue." Rule 5.108(A). The PSB therefore must consider "the nature of the project's surroundings, the compatibility of the project's design with those surroundings, the suitability of the project's colors and materials with the immediate environment, the visibility of the project, and the impact of the project on open space." Rule 5.108(A)(1).

A solar project's location, size, and visibility, together with the context of the surrounding land uses, will be relevant in the PSB's consideration of whether the proposed project would have an undue adverse impact. Among other things, the Quechee analysis requires the PSB to consider whether the proposed project would violate a "clear written community standard".

Therefore, the effective participation of Woodstock in the PSB's review process requires the development of specific community standards in order to ensure that local conservation and development objectives are considered and weighed by the PSB in its review of a CPG application for a solar energy facility. Toward that end, the Woodstock Select Board has developed the following specific community standards for the siting and development of a solar energy facility in Woodstock Town.

# WOODSTOCK COMMUNITY STANDARDS REGARDING SCENIC BYWAYS AND VISTAS AND THE SITING OF SOLAR ENERGY FACILITIES

# I. A. PURPOSE

The purpose of these community standards is to promote the development of renewable energy resources and energy facilities in Woodstock Town, while limiting the adverse impacts of such development on public health, safety and welfare, the town's historic and planned pattern of development, environmentally sensitive areas, and our most highly-valued natural, cultural and scenic resources - consistent with related development, resource protection and land conservation policies included elsewhere in this plan. These policies should also be considered in undertaking municipal solar energy projects and programs, in enacting or updating the town's bylaws to address renewable energy development, and in the review of new or upgraded energy facilities and systems by the town and in§ 248 PSB proceedings.

#### A. General Standards for Energy Projects

Woodstock will consider supporting the following types of energy development, in order of priority:

- 1. Increased system capacity through state, utility and municipally-supported energy efficiency and conservation programs.
- 2. Individual and group net-metered renewable energy projects, community-based projects, and other small-scale distributed renewable energy systems serving individual users, in appropriate, context-sensitive locations.
- 3. In-place upgrades of existing facilities, including existing transmission lines, distribution lines and substations as needed to serve the town and region.

4. New community-scale energy facilities, including new transmission and distribution lines, substations, hydro dams, wind and solar farms, co-generation facilities and biomass plants that are designed to meet the expected needs of Woodstock Town.

To the extent physically and functionally feasible, existing utility systems, including transmission lines, distribution lines and substations, shall be upgraded or expanded on site or within existing utility corridors before new facilities or corridors are considered.

# B. Public Health and Safety Standards and Use Classification

A small net-metered or off-grid solar energy project, including a solar array, system intended solely to serve only an individual residence or business, should be considered an accessory structure allowed in all land use in which structures are allowed by zoning bylaws.

# C. Setbacks

Except for transmission and distribution lines and utility connections, all energy facilities including substations, commercial, utility and net-metered generation facilities and accessory structures - must meet minimum setback requirements for the land use district(s) in which they are located. In addition:

- 1. Building-mounted solar panels must meet the minimum setback requirements of the Town bylaws for the building on which the panels are to be mounted. The installation of a net-metered or similar off-grid energy system on a nonconforming structure will not constitute an increase in the degree or amount of nonconformance under town bylaws.
- 2. Renewable energy facility setback distances from property lines, or from occupied structures in existence at the time of application, should be increased as necessary to mitigate identified aesthetics, historic sites, air and water purity, the natural environment, the use of natural resources, and the public health and safety, with due consideration having been given to the criteria specified in 10 V.S.A. § 1424a(d) (outstanding resource waters) and the Act 250 criteria set forth in 10 V.S.A. §6086(a)(1) through (8) and 9(K), and nuisances or adverse impacts upon adjoining property owners.

#### D. Access

New energy generation facilities shall be sited in a manner that avoids or, to the greatest extent physically feasible, minimizes the need for new and extended access roads and utility corridors.

- 1. Facility access should be provided from existing access roads where physically feasible, and access roads and utility corridors should be shared to minimize site disturbance, resource fragmentation, the creation of additional edge habitat, and the introduction and spread of invasive exotic species.
- 2. Identified impacts to public highways from facility construction, operation and maintenance, including highway improvements required to accommodate the facility, shall be mitigated by the developer.
- 3. Public access to generation and transmission facilities, including substations, must be restricted as necessary to protect public health and safety.
- 4. Noise generated by any energy facility, including wind energy systems, shall not exceed the lesser of (a) 45dB(A) as measured at any property line, or (b) 5dB(A) above the ambient sound level, except during a short-term event such as a utility outage or a severe wind storm.

# E. Signs

Energy generation facilities and structures shall not be used for display or advertising purposes. Signs, except for owner and manufacturer identifications and safety warnings that do not exceed one square foot, are prohibited on all structures.

1. Substation lighting should be the minimum necessary for site monitoring and security, should be cast downward, and must not result in light trespass or glare on adjoining properties.

#### F. Decommissioning and Abandonment

Generation facility permits or certificates must include provisions for system abandonment, decommissioning and site restoration including, for larger systems > 100 kW, required sureties for facility removal and site restoration.

#### II. SOLAR ENERGY FACILITY SITING STANDARDS

# A. Site Designation and Siting Standards

- 1. Sites planned for or intended to accommodate solar energy facility development, including the location of existing and planned commercial and net-metered generation facilities and utility corridors, are to be shown on site development and subdivision plans reviewed by the town.
- 2. Solar energy facilities and accessory structures are to be designed and constructed of materials, colors, and textures that blend into the surrounding natural or built environment to the extent feasible.
- 3. The solar energy facility shall not extend above the background horizon line.
- 4. The solar energy facility shall be screened from view through the use of existing topography, structures, vegetation or strategically placed tree, shrub and ground cover plantings that do not block distant views.
- 5. Onsite mitigation e.g., through facility clustering, relocation, buffering and permanent conservation easements is preferred. Off-site mitigation measures should be required where on-site mitigation is not physically feasible.

#### B. Setbacks

- 1. Ground-mounted solar energy facilities with a generation capacity from 0 MW to .5MW shall be located at least 50 feet from any property line and at least 50 feet from any public highway.
- 2. Ground-mounted solar energy facilities with a generation capacity from .5 MW to 1 MW shall be located at least 100 feet from any property line and at least 100 feet from any public highway.
- 3. Ground-mounted solar energy facilities with a generation capacity from 1 MW to 1.5 MW or more shall be located at least 150 feet from any property line and at least 150 feet from any public highway.
- 4. Ground-mounted solar energy facilities with a generation capacity from 1.5 MW to 2 or greater MW shall be located at least 200 feet from any property line and at least 200 feet from any public highway.

- 5. Ground-mounted solar arrays shall not be located within 1,000 feet of the boundary of the Village Design Review District, the South Woodstock Design Review District, and Taftsville, unless topographic features of the landscape or existing vegetative screening preclude observation of the solar arrays from the relevant protected district or hamlet.
- 6. Ground-mounted solar arrays shall not be located within 250 feet of the boundary of a public cemetery in Woodstock, unless topographic features of the landscape or existing vegetative screening preclude observation of the solar arrays from the cemetery.

# C. Hazard Areas

With the exception of transmission and distribution lines, ground-mounted solar energy facilities that are not attached to existing or permitted structures shall not be located in:

- Special Flood Hazard Areas (SFHAs), including floodways and floodway fringes identified on Flood Insurance Rate Maps (FIRMs) for the town. Any allowed facility shall not be located within these areas must meet minimum National Flood Insurance Program (NFIP) requirements, as reviewed and permitted by the municipality or the state.
- 2. Shall not be located in fluvial erosion hazard areas as identified on Woodstock FEMA maps.
- 3. Shall not be located on steep slopes, with natural (pre-development) grades in excess of 15%.

# D. Conservation/Open Space Areas

Ground-mounted solar energy facilities with a generation capacity of greater than 100kW are to be sited to avoid, where physically feasible, or to otherwise minimize encroachment and mitigate, the adverse impacts of facility development on:

- 1. Significant wildlife habitat, including without limitation, deer wintering areas, core habitat areas, and travel and migratory corridors, as identified from state inventories and data sets, local inventories, and site investigations associated with facility development.
- Ground-mounted solar arrays shall not be located on the following land identified on the Town Plan's 2014 Critical Areas Map: swamps, flood plains, forest fens (yellow shaded areas), wetlands (Class II and Class III), and vernal pools. The setback for a ground-mounted solar energy facility from surface waters and wetlands shall be 75 feet. The setback for a ground-mounted solar energy facility from vernal pools shall be 50 feet.

# E. Agricultural Land/Open Space

Ground-mounted solar energy facilities with a generation capacity of greater than 100 kW, transmission and distribution lines, accessory structures and access roads are to be located on nonagricultural land or along field edges to avoid fragmentation of, and to minimize and mitigate adverse impacts to agricultural land and open fields.

1. Ground-mounted solar energy facilities shall not be located on primary agricultural soils as mapped by the USDA Natural Resource Conservation Service in order to preserve such lands for agricultural use.

# F. Designated Scenic Areas

Ground-mounted solar energy facilities sited within or as viewed from scenic areas shall not create a significant physical, visual, audible, or historically incongruous or incompatible intrusion into these areas. New facilities, including generation facilities greater than 100 kW substations and transmission lines, are specifically prohibited within or as viewed from these areas unless significant associated impacts can be avoided, for example through facility siting, screening or line burial.

#### G. Designated Woodstock Town Historic Districts and Other Historically-Significant Properties

Ground-mounted solar energy facilities shall not be located within any area designated on the National Register of Historic Places.

- Ground-mounted solar energy facilities shall not be located within 500 feet of a building designated as a historic building. Ground-mounted solar arrays shall not be located within 500 feet of the boundaries of the Marsh Billings Rockefeller National Park and/or, the Billings Farm. These standards may be relaxed if topographic features of the landscape and/or existing vegetative screening preclude observation of the solar arrays from these protected properties and/or the buildings located thereon.
- 2. The installation of solar energy facilites on historic buildings or on buildings within the any area hamlet or Village designated on the National Register of Historic Places shall be done in accordance with current Secretary of the Interior's Standards for Rehabilitation.
- 3. The historic character of listed properties and structures shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
- 4. Ground installations, to the extent functionally feasible, shall be installed in locations that minimize their visibility, such as a side or rear yard, and be screened from view of public rights-of-way and adjoining properties.
- 5. Roof or building-mounted systems may be placed on new construction, non-historic buildings and additions.
- 6. Solar panels and other roof- or wall-mounted structures shall not be placed on primary building facades, including street-facing walls or roofs, unless there is no other suitable location on the site or structure.
- 7. Roof or building-mounted systems on a historic building shall not physically damage the structure, alter its character-defining features, including existing roof lines or dormers, nor obstruct significant architectural features such as overlaying windows or architectural detailing. Attachment points must be minimized and allow for future system removal.
- 8. Roof-mounted installations shall be placed below and behind parapet walls and dormers, on rear-facing roofs, where feasible. Panels are to be mounted flush with and at the same angle as the existing roof surface and, on flat roofs, set back from the roof edge to minimize visibility.

#### III. GOALS

A. Promote sustainable development in Woodstock by reinforcing traditional land use patterns and municipal development policies, maximizing energy conservation through weatherization of existing structures and appropriate siting of new development, encouraging appropriate development and use of renewable energy resources, protecting natural and cultural resources.

- **B.** Ensure the long-term availability of safe, reliable and affordable energy supplies to meet the needs of the town and neighboring communities.
- **C.** Reduce municipal energy consumption and costs, community reliance on fossil fuels and foreign oil supplies, and greenhouse gas emissions that contribute to climate change through increased energy and fuel efficiency, energy conservation, and active transition to alternative fuels and renewable energy sources.
- **D.** Sustainably develop Woodstock Town's renewable energy resources and local distributed energy generation capacity including municipal and community generation and supporting smart grid technology consistent with adopted plan policies and community energy facility and siting standards.
- **E.** Avoid or minimize the adverse impacts of energy development on public health, safety and welfare, the town's historic and planned pattern of development, environmentally sensitive areas, and Woodstock Town's most highly valued natural, cultural and scenic resources, consistent with adopted plan policies and community standards for energy development, resource protection and land conservation.

#### IV. WOODSTOCK COMMUNITY STANDARDS REGARDING SCENIC BYWAYS

The purpose of these standards is to protect the scenic resources and traditional development pattern along the corridors between the village centers and hamlets. U.S. Route 4 is hereby designated as a scenic byway. The boundaries of this scenic byway shall extend 1,000 feet from the highway right of way, or to the Woodstock town line, whichever is less ('the scenic byway buffer"). This scenic highway buffer shall be measured from the edge of the public highway's right of way.

- **A.** Within this scenic byway, construction or expansion of any structure must be compliant with the permitted or conditional uses set forth in the applicable zoning bylaws for the district, which shall be augmented by the following standards.
- 1. For properties with an existing conservation easement (as of the effective date of these regulations) or a building envelope(s) established by the Planning Commission, construction or expansion of any structures allowed as a permitted use in the underlying zoning district shall be a permitted use, unless a driveway or road is proposed that is to be located outside of the approved building envelope or an approved driveway or road location, in which case the use will be reviewed as a Conditional Use. The applicant shall, to the greatest extent possible, consider and implement the standards set forth below in connection with such permitted use.
- 2. Construction of new principal and accessory structures or the expansion of existing structures may be approved by the Development Review Board subject to conditional use review and findings that the proposed construction or expansion will have no undue adverse effect on the scenic resources of the area and to the greatest extent possible, the standards below are met.
  - (a) Structures are sited so that they do not protrude above a ridgeline.
  - (b) Structures are sited in wooded areas or on field edges.
  - (c) Structures are sited in such a way that agricultural resources are not fragmented or otherwise impacted.
  - (d) New structures are sited in proximity to existing structures.

- (e) Existing vegetation is retained and supplemented with new plantings compatible with existing vegetation to screen structures and minimize impacts on views from U.S. Route 4.
- (f) New driveways, roads and parking areas are sited away from open fields, follow existing contours to minimize the visual impact of cut and fill, are screened from U.S. Route 4 and sited in such a way that agricultural resources are not fragmented or otherwise impacted.
- (g) Ground-mounted solar arrays shall not be located within the scenic byway buffer unless topographic features of the landscape and/ or existing vegetative screening preclude observation of the solar arrays from motorists, bicyclists, and/or pedestrians on the public highway.

Town of Woodstock Supporting Plan Standards for the Protection of Scenic Byways and Vistas & the Siting of Solar Facilities adopted by the Select Board of the Town of Woodstock at a special meeting duly warned and held on the 9th day of June, 2015