

# **DUANESBURG TOWN SOLAR COMMITTEE**

Meeting Agenda

Sept. 13, 7 p.m.

Continue Review of Solar Law Project Requirements

Emergency Response

Slopes

Property Values

Underground Wiring

Visual Screening

Wildlife

Public Comments

# **TOWN SOLAR LAW EMERGENCY RESPONSE REQUIREMENTS**

## **Alternative #1 — Current Duanesburg Draft**

A road and parking will be provided to assure adequate emergency and service access. Maximum use of existing roads, public and private, shall be made. Any proposed new access road will be reviewed for fire safety purposes by the Town Building Inspector and the Chief of the Fire Company that serves the area containing the property.

## **Alternative #2 — Town of Florida**

Applications shall require review and approval by the nearest fire department for accessibility of emergency vehicles and equipment prior to site plan review.

When any solar energy system is installed and before it becomes active, the owner of the site and/or the solar energy system must contact the Town's emergency response departments to make arrangements for a meeting at the site to review the components of the array and to be educated on safety issues and procedures for emergency response. This shall include detailed discussion related to the location of labeled warnings, access to the site, and information on emergency disconnection of the system. In addition, the Town may require a plan for installation regarding the location of placards which provide mutual aid responders with sufficient information to protect them when responding to calls on site.

## **Alternative #3 — Town of Somerset**

Applications shall include a safety plan (including communication with emergency service providers).

A copy of the approved Emergency Operations Plan shall be given to the system owner, the local fire department, and local fire code official. A permanent copy shall also be placed in an approved location to be accessible to facility personnel, fire code officials and emergency responders. The emergency operations plan shall include the following information:

1. Procedures for safe shutdown, de-energizing, or isolation of equipment and systems under emergency conditions to reduce the risk of fire, electric shock, and personal injuries, and for safe start-up following cessation of emergency conditions.
2. Procedures for inspection and testing of associated alarms, interlocks, and controls.
3. Procedures to be followed in response to notifications from the solar energy system, when provided, that could signify potentially dangerous conditions, including shutting down equipment, summoning service and repair personnel, and providing agreed upon notification to fire department personnel for potentially hazardous conditions in the event of a system failure.
4. The property must be inspected after a National Weather Service designation of a Severe Weather Watch or Severe Weather Warning to ensure that the property did not sustain damage. Report to be filed with Town Planning Board.

5. Emergency procedures to be followed in case of fire, explosion, release of liquids or vapors, damage to critical moving parts, or other potentially dangerous conditions. Procedures can include sounding the alarm, notifying the fire department, evacuating personnel, de-energizing equipment, and controlling and/or extinguishing the fire.
6. Response considerations similar to a safety data sheet (SDS) that will address response safety concerns and extinguishment when an SDS is not required.
7. Procedures for dealing with solar energy system equipment damaged in a fire or other emergency event, including maintaining contact information for personnel qualified to safely remove damaged solar energy system equipment from the facility. System owner shall provide guaranteed non-emergency and emergency response times of a qualified subject matter expert to the Town Hall and local first responders.
8. Other procedures as determined necessary by the Town to provide for the safety of occupants, neighboring properties, and emergency responders, that shall include but not be limited to a smoke plume test for evacuation purposes. All smoke plume testings shall be made public.
9. Procedures and schedules for conducting drills of these procedures and for training local first responders on the contents of the plan and appropriate response procedures. Training of local first responders shall be done semi-annually. Training in a classroom setting shall be done annually in the winter and an onsite training session shall be done annually in the spring. This training shall include local and mutual aid first responders.
10. The system owner shall notify the local fire department, county emergency management office and the town hall at least one week prior to any scheduled maintenance or battery swap out.
11. In the event of a fire, all contaminated soil must be removed and disposed of properly, in accordance with all applicable laws.

## SLOPE

### **Current Duanesburg Language:**

Not included.

### **2021 Revised Duanesburg Language:**

Not included.

### **Strict Requirement (Florida)**

No part of a Large Scale Solar Energy System shall be located above the elevation of 700 feet, along ridgelines, on hilltops, or on slopes greater than 12 percent.

### **Alternative (Conway, Mass.)**

No commercial solar photovoltaic installation may be permitted as follows:

Any solar photovoltaic installation on slopes of 15 percent or greater as averaged over 50 horizontal feet. The Planning Board may consider waiving this up to 18 percent based on site-specific parameters. No cutting or filling may be done to reduce natural slopes.

# PROPERTY VALUES

## **Current Duanesburg Language:**

Not included.

## **2021 Revised Duanesburg Language:**

Not included.

## **Strict Requirement (Guilderland)**

The Zoning Board shall confirm compliance with [requirements for major solar energy systems], and shall make the following affirmative findings:

2. The major solar energy system will not adversely materially affect the value, use or enjoyment of neighboring properties;

## **Alternatives:**

### **Cherry Valley**

Applications shall include a property value analysis prepared by a licensed appraiser in accordance with industry standards, regarding the potential impact on values of properties neighboring solar energy generating sites. Such analysis should include actual data concerning the impacts of previously constructed facilities in the State of New York on property values.

### **Alliance for Wise Energy Decisions (model law)**

The Solar Energy Facility applicant shall assure the Town that there will be no loss in real property value for any property with 1,000 feet of the Solar Energy Facility. To legally support this claim, the Applicant shall consent in writing to a Real Property Value Protection Agreement as a condition of approval for the Solar Electric Facility. This agreement shall provide assurance to non-participating real property owners near the Solar Electric Facility that they have some protection from Solar Electric Facility-related real property value losses.

The applicant guarantees that there will be no loss in real property value within 1,000 feet of the Solar Electric Facility, due to the Solar Electric Facility. Any real property owner(s) included in that area who believe that their property may have been devalued due to the Solar Electric Facility, may elect to exercise the following option:

All appraiser costs are paid by the applicant, from the escrow account. Applicant and the property owner shall each select a licensed appraiser. Each appraiser shall provide a detailed written explanation of the reduction, if any, in value to the real property ("Diminution Value"), caused by the proximity to the Solar Electric Facility. This shall be determined by calculating the difference between the current Fair Market Value of the real property and what the Fair Market Value would have been at the time of exercising this option, assuming no Solar Electric Facility was proposed or constructed.

*Suggested language goes on to describe at length how solar operator will compensate neighboring property owners.*

# UNDERGROUND WIRING

## **Current Duanesburg Language:**

Not included.

## **2021 Revised Duanesburg Language:**

Not included.

## **Strict Requirement:**

All transmission lines and utility wires associated with a solar energy system shall be buried and include necessary encasements in accordance with all applicable codes. All transmission lines and utility wiring shall be in compliance with the utility company's requirements for interconnection.

## **New York State 94-c:**

The electrical collection system shall be located underground, to the extent practicable. Structures shall only be constructed overhead for portions where necessary based on engineering, construction or environmental constraints.

## **Guilderland:**

Utility lines and connections for a solar energy system shall be installed underground, unless otherwise determined by the Planning Board for reasons that may include poor soil conditions, topography of the site, and consideration of the utility provider's engineering requirements. Electrical transformers for utility interconnections may be aboveground if required by the utility provider.

## **Schoharie, Sharon et. al.**

All transmission lines and wiring associated with a solar energy system shall be buried and include necessary encasements in accordance with the National Electric Code and utility company requirements. The Planning Board may recommend waiving the requirement for burial if sufficient engineering data is submitted by the applicant to demonstrate that underground transmission lines are not feasible or practical. The applicant is required to show the locations of proposed overhead and underground electric utility lines, including substations and junction boxes and other electrical components for the project on the site plan. All transmission lines and electrical wiring shall be in compliance with the utility company's requirements for interconnection.

## VISUAL IMPACT

### **Current Duanesburg Language:**

A minimum 25-foot perimeter buffer, consisting of natural and undisturbed vegetation, shall be provided around all mechanical equipment and solar panel arrays to provide screening to adjacent properties and to minimize glare on adjacent properties and roadways.

Evergreen tree plantings may be required to screen portions of the site from nearby residential property, public roads and from public sites known to include important views or vistas.

### **2021 Revised Duanesburg Language:**

A minimum 100 feet perimeter buffer, consisting of natural and undisturbed vegetation, shall be provided around all mechanical equipment and solar panel arrays to provide screening to adjacent properties and to minimize glare on adjacent properties and roadways. Where the natural and undisturbed vegetation does not screen the views from the mechanical equipment and solar panel arrays, the Planning Board may require the Applicant to enhance the perimeter buffer to improve its ability to screen the views.

Evergreen tree plantings or other visual screening may be required by the Planning Board to screen all or portions of the site from nearby residential property, public roads and from public sites known to include important views or vistas.

### **Strict Requirement (Rush)**

A landscape buffer shall be provided around the [utility-scale] Energy System to provide screening from adjacent properties. The [utility-scale] Solar Energy System shall be completely screened from any adjacent property. To accomplish this screening, existing vegetation shall be utilized to the fullest extent practicable and/or at least two rows of native evergreen trees or other screening acceptable to the Planning Board which is capable of forming a continuous hedge at least 14 feet in height at planting shall be required and maintained. A two-year warranty shall be provided for any screening installed as part of the [utility-scale] Energy System. The minimum screening requirement may be waived if the Planning Board determines that some other suitable vegetation or feature already exists to achieve complete screening.

### **Alternative (Schoharie, Sharon et. al.)**

The solar facility, including any proposed off-site infrastructure, shall be located and screened in such a way as to avoid or minimize visual impacts as viewed from:

- (1) Publicly dedicated roads and highways, including . . .
- (2) Existing residential dwellings located on contiguous parcels.

A berm, landscape screen or other opaque enclosure, or any combination thereof acceptable to the Town capable of fully screening the site, shall be provided.

## VISUAL IMPACT Continued

### **Proposed Language:**

The solar facility, including any proposed off-site infrastructure, shall be located and screened in such a way as to avoid or at the very least minimize visual impacts as viewed from public locations, public dedicated roads and highways, residences located on contiguous parcels, or other locations identified by the Planning Board. Acceptable screening would include maintenance of existing vegetation, new vegetative barriers or berms, landscape screen or other opaque enclosures, or any combination thereof acceptable to the Town capable of fully screening the site. The applicant shall guarantee that all plantings that form part of the approved landscape and screening plan will maximally screen the system within five {5} years or less and remain until the facility is decommissioned.

1) When the site is surrounded by existing mature trees, a buffer where no trees shall be cut shall be established and maintained as a forever wild zone for the life of the facility. All other dimensions with regards to setbacks will still apply.

2) Trees to be included in screening shall be native species, a minimum of 8' tall and 3" in diameter. Eastern red cedar, and white spruce are examples of acceptable evergreen trees to include in screening. It shall be determined and documented by the developer if at the time of planting if any species are threatened due to regional blight, disease, etc.

3) The Planning Board shall require creation of a buffer that has an offset, double row of densely growing evergreens with the addition of some smaller trees and shrubs in front to create more of a naturalized hedgerow habitat. The double row will provide additional screening early while the trees are still small. While the evergreens should be the dominant tree for screening, addition of some smaller trees and shrubs would be beneficial for wildlife and aesthetics.

Appropriate shrubs and small trees to include to create a hedgerow could be shadbush, flowering dogwood, serviceberry, flowering raspberry, maple leaved viburnum, nannyberry, and choke cherry.

4) The Planning Board shall ensure maximum buffering and screening of largescale solar systems that are determined to be within or can be seen from the Route 20 or Routes 7 and I-88 plus any other Scenic Byway Corridors as evidenced from the viewshed.

5) The design, construction, operation, and maintenance of any solar energy system shall prevent the misdirection and/or reflection of solar rays onto neighboring properties, public roads, and public parks in excess of that which already exists.

6) All structures and devices used to support solar collectors shall be non-reflective and/or painted a subtle or earth tone color to aid in blending the facility into the existing environment.



## WILDLIFE

- Existing laws and regulations protect endangered and threatened species. They do not protect species of special concern or high-priority species of greatest conservation need. (See following sheets for definitions and examples.)
- If preference is to protect only endangered and threatened, no special language is needed. We could perhaps reference the relevant state law and regulations as we did with wetlands and noise.
- Also need to consider whether to add documentation of the presence or absence of species in need of protection to application requirements. If no site-specific data exists, the applicant would be required to perform field surveys following existing NYSDEC protocols to determine what species use the site.
- If we wish to protect more than endangered and threatened, we must decide: first, whether to include just special concern, or both special concern and high-priority (Note high-priority covers more species and those species have larger populations than special concern. When NYSDEC refers to “listed species,” it means endangered, threatened and special concern only, and not high-priority.); and second, what language to use.
- One alternative would be: “Solar energy systems shall avoid or minimize adverse impacts to species in need of protection or their occupied habitats, to the maximum extent practicable.”
- Another alternative is the following language commonly used in town solar laws (I have found seven towns in my own extremely limited study that use it verbatim):

“Development and operation of a solar energy system shall not have a significant adverse impact on fish, wildlife or plant species or their critical habitats, or other significant habitats identified by the Town or other federal or state regulatory agencies. Applicant site maps shall delineate sensitive environmental features along with other site information to identify and describe how the proposed utility-scale solar energy system shall avoid adverse impacts to these resources. *The SEQR process shall be used to analyze all potential environmental impacts and determine the significance of these impacts.*” (The italicized sentence is used by only one town I have found, and I think it is important.)

**NUMBER OF SPECIES BY CATEGORY OF PROTECTION - NEW YORK STATE**

	<u>Endangered</u>	<u>Threatened</u>	<u>Special Concern</u>	<u>High Priority</u>	<u>TOTAL</u>
<b>Molluscs</b>	6	3	3	25	37
<b>Insects</b>	10	5	15	23	53
<b>Fish</b>	8	11	5	31	55
<b>Amphibians</b>	2	0	7	2	11
<b>Reptiles</b>	7	5	6	1	19
<b>Birds</b>					
Grassland	1	4	2	2	9
Other	<u>9</u>	<u>7</u>	<u>17</u>	<u>20</u>	<u>53</u>
<b>Subtotal</b>	10	11	19	22	62
<b>Mammals</b>	10	2	3	2	17
<b>TOTAL</b>	<b>53</b>	<b>37</b>	<b>58</b>	<b>106</b>	<b>254</b>

## NYS DEC WILDLIFE SPECIES STATUS CATEGORIES

### **Endangered:**

Any native species in imminent danger of extirpation or extinction in New York State.

*None reported in Duanesburg.*

### **Threatened:**

Any native species likely to become an endangered species within the foreseeable future in New York State.

*Reported in Duanesburg: Bald Eagle, Northern Harrier, Upland Sandpiper, Least Bittern, Northern Long-eared Bat*

### **Special Concern:**

Any native species for which a welfare concern or risk of endangerment has been documented in New York State.

*Reported in Duanesburg: Osprey, Sharp-shinned Hawk, Cooper's Hawk, Red-shouldered Hawk, Red-headed Woodpecker, Yellow-breasted Chat, Northern Goshawk, American Bittern*

### **High-Priority:**

The status of these species is known, and conservation action is needed in the next ten years. These species are experiencing a population decline, or have identified threats that may put them in jeopardy, and are in need of timely management intervention, or they are likely to reach critical population levels in New York.

*Reported in Duanesburg: Bay-breasted Warbler, Bobolink, Brown Thrasher, Canada Warbler, Cape May Warbler, Eastern Meadowlark, Olive-sided Flycatcher*