

Responsible Solar Development

FUSES

March 2022



USES is a grassroots community of advocates including families, landowners, farmers, students, local businesses, skilled trades, and environmentalists who want to support, grow and educate on the value of harvesting sunshine to produce emissions-free electricity.



Agenda

Grassroots Model for the Developer

Recommendations from a Code Enforcement Officer

Environmental and Community Concerns

Discussion

USES Grassroots Model by Trieste

- Nationally successful strategy to reach community supporters
- Guidelines for developers and landowners to build relationship with communities
- Step-by-step guide for directly meeting community members, promoting action, and marketing messages
- Procedures for starting and organizing groups



Grassroots Model for the Developer

- Landowner dinner
 - Critical in helping landowners in forming alliances
- Public outreach
 - “Community Profile” – information on relevant parties within the community
 - Table at local events, festivals, fairs
- Open house
- Non-landowner support recruitment
 - Meet with local organizations and community leaders
 - Providing sign up sheets at events or inviting those interested in educating the community
- Site-specific materials
 - Project fact sheets, newsletters, Powerpoints
- Solar farm tours
- Provides opportunities for and are receptive to constructive feedback from the community

Lawn sign templates available soon on the USES website for construction sites – developers can order!





Recommendations from a Code Enforcement Officer

- Best way to ensure that developers treat community right is for the community to ask for more than the bare minimum, and be specific!
 - The site plan may include vegetative border, but planning board can request it to be higher and a specific type
 - The landscaping plan may change from using a rye grass to using a pollinator friendly mix
 - The maintenance plan may offer mowing once per year, or not until grass hits the bottom of the panels – they should mow minimum 3-4 times per year
 - Visual impacts should be greatly considered for those close to project
 - Grassroots organizers should go to meetings and being part of this conversation, expressing their ideas and what the town wants
 - Take notes during initial meeting and listen to the plans first, and then bring comments back to planning boards
 - Many planning boards in smaller communities may not be aware of opportunities or things they should be asking for
 - Grassroots may also want to meet with developers before planning board meetings so they can prepare
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Important Topics to Consider

- Upkeep and maintenance
 - Visual impacts
 - The number of trees cut down should be included in the vegetative borders – and make sure they look nice!
 - Construction planning
 - Where traffic where resources are kept
 - How is it getting to the site
 - Road use agreement with the developer is in place
 - Make sure video of road is taken before and after construction to ensure maintenance
 - Town should review plan with contractor and keep all parties accountable
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Important Topics to Consider

- Host agreements can include that they need to hire a certain percentage of local labor
 - If developer doesn't meet this goal, they may pay the town more per MW
 - Access roads
 - Need to make sure an ambulance can get through
 - Potential environmental concerns – DEC/Army Corp of Engineers look after wetlands and will fine developer and make them pay for restoration if damaged
 - DEC may expect municipalities to conduct inspections (e.g. Stormwater Pollution Prevention Plan) and small communities may not have resources to conduct these inspections - they can have the developer put up escrow to support
 - Make sure emergency response plan is in place
 - Ambulance and fire department must be satisfied with the plan
 - Gaining support from fire department leads to greater acceptance from the community
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- Burns, NY
 - Only 2-room jail left on this side of the Mississippi
 - Built in the 1800s
 - Developer plans to restore and refurbish this historical landmark and funded town's purchase of the garage next door to tear down and create a parking lot
 - Parking lot will have charging stations from NYSERDA grant
- (Ignore 4 ft note – just something needed for fire code!)*



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- Local businesses can benefit from developers renting their equipment, like this excavator



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- Community Host Agreements can specify that developers should hire local labor



- This picture shows the view from a solar farm on a farmer's property, looking out at hay fields, barn, and landowner's home
- Solar farms on farmland can provide valuable additional income to local farms
- Allows families to maintain their business
- Helps the local economy and ensures more locally-sourced, sustainable agriculture by avoiding increased factory farming
- Diversifying farmland does not mean losing farmland
- Wildlife fence used to allow small critters into solar farm, but fence (8 ft) high enough to prevent deer from attempting to jump over
 - Important to use fencing that wildlife will not get caught in
 - There will be vegetative screening that covers the fence



- 2MW facility in Lakeville Villages Estate, a 55+ community
- Solar farm is owned by community and the facility helps offset the cost of maintenance for homes while also giving residents a break in their utility bills
- Black mat is part of the access road and designed for stormwater retention, will be filled with stone



- An example of good landscaping on a solar farm, including clean vegetative border and inconspicuous barbed wiring



- Wildlife doing what it does best – finding a way to thrive in new locations!
- Fixed panel system with bird nest
 - Tracking panels have stationary beams that would allow for nesting as well
- Keeps nest warm and being within the fence protects birds from predators
- Only one nest in picture, but there were around 40 nests total in this field

- Scorecard determines whether site meets criteria to support pollinator habitat, and provides guidance on what species to plant based on the land

Solar Site Pollinator Habitat Scorecard

For site and seed mix planning, designing, and assessment. Pollinator planting area shall always be managed to prevent and eliminate invasive species as defined in 6 V.S.A. chapter 217 § 5101(2). Scorecards must be renewed every three years or sooner. Standards below refer either to the site plan or an established site. The site area is consistent with the 'Limits of Disturbance' per Net Meter Rule 5.103.



1. Percent site's vegetative cover is flowering species

(select one)

- 1-15 percent (5 points)
- 16-30 percent (10 points)
- 31-45 percent (15 points)
- 46-60 percent (20 points)

2. Flowering perennial species to be used

(select all that apply)

- Includes species of Northern New England and adjacent New York provenance (5 points)
- Amount of seed to be planted (lbs/acre) is determined according to seed provider's recommended application rate and/or planting density for planted species in the target area (5 points)
- Includes only VT native or naturalized perennial species. (15 points) *Species native to the biophysical region preferred.*

3. Cover diversity within the ground cover area

5. Observed pollinator nesting habitat within 0.25 miles

(select all that apply)

- Bare ground patches one square foot or larger, with undisturbed and well-drained soil (2 points)
- Forest edge habitat that includes flowering shrubs and young trees (2 points)
- Cavity nesting sites (e.g., dead trees, snags, fallen logs, shrubs, plants with pithy-stemmed twigs such as sumac, rose, raspberry) (2 points)

Creation of nesting habitat features (e.g. boxes, tunnels) (0.2 points per feature)

features: x 0.2 = 0.00 points

6. Pollinator management practices (select all that apply)

- Mowing occurs only after October 15, and before May 1 each year; mowing height is 5" or higher (5 points)
- Detailed establishment & management plan (10 points)
- Detailed plant & wildlife monitoring plan (10 points)

- Available in the municipal toolkit on the USES website!

3. Cover diversity within the ground cover area

(# of flowering plant species that constitute >2 percent cover each; select one)

- 1-9 species (5 points)
- 10-19 species (10 points)
- 20 or more species (15 points)

4. Seasons with at least 3 blooming species with >2 percent cover each (select all that apply)

- Spring (10 points)
- Early summer (5 points)
- Late summer (5 points)
- Fall (5 points)

- Detailed plant & wildlife monitoring plan (10 points)

7. Pesticide risk (select if applicable)

- On-site insecticide use on plants (includes prior application to seeds/plants.) (-40 points)

8. Vegetation buffer adjacent to the solar site (select all that apply)

- At least 50% of buffer area vegetative cover planted with flowering plant species (5 points)
- At least 50% of buffer area vegetative cover planted with VT native or naturalized shrub species (5 points)
Species native to the biophysical region preferred.
- Buffer at least 30 feet wide (10 points)

Site Owner or Designee: NYSOLAR03

Date: 23/25/2021

Vegetation Consultant: Monarch Vegetation Services

Seed Supplier: Ernst Seed

Project Address: 3450 W Lake Rd

Project Size: 5.0 MWac

Target Seeding Date: 3/1/2022

- New
- Retrofit
- Revised Scorecard
- Attached Seed Mix Specs or Management Plans

**Pollinator-Friendly
Score: 102.0**

Meets “Pollinator-friendly Solar” Standard: 70-84

Provides Excellent Habitat: >85

The signator certifies that the solar site adheres to this Scorecard in accordance with 6 V.S.A. chapter 217. The practices called for in this Scorecard are subordinate to any requirements of applicable State permits, agency rule or guidance. All solar projects must comply with applicable Vermont Public Utility Commission and Agency of Natural Resources permit conditions, even if those conditions conflict with practices favored by this Scorecard.

Upload completed scorecard at: go.uvm.edu/pollinator-friendly-solar



Recommendations from a Code Enforcement Officer

- Important note for community engagement – grassroots need to express how solar projects can help the environment and wildlife, and how they can bring additional revenue for the town and community
 - Solar projects may impact viewsheds, but can also impact town budgets – in a positive way!
 - As fuel costs rise and raise town budgets, solar projects are added income that can prevent these costs from coming back to the taxpayer
 - Do you want to see taxes rise from year to year, or stay flat?
 - Community host agreement payments can be individualized – paid out per year with cost of inflation included (e.g. adding ~2% each year) or paid in full upfront
 - Example: 3 small 5 MW projects are generating \$42k annually for a town!
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Environmental and Community Concerns

- Based on Atlantic Chapter of Sierra Club process for endorsing >25 MW projects, guidelines for constructive conversations with town officials and developers
 - Important to commit to renewable energy while still preserving nature AND providing a just transition that respects communities and enhances opportunities
 - Evaluation process starts after developer files application with Office of Renewable Energy Siting (ORES)
 - Use this application, project tour site, interviews with developer, local stakeholders, and other residents to complete this evaluation
- Each category is scored and final score is reviewed with other regional groups and statewide Sierra Club leaders to determine endorsement
 - Any categories scoring 0 should result in discussion with developer for improvement, and Sierra Club would consider not endorsing

Areas to Consider for “Responsible Solar”

1. Impact of forested land:

Minimal to no removal of mature forest ecosystems.

Any removal of large trees to be mitigated by replanting or funding nearby forest protection or vegetative barriers

2. Impact on wetlands and riparian areas:

Minimal to no impact on wetland and riparian areas; minor impacts to be significantly mitigated.

3. Impact on birds and other wildlife; focus is on endangered or protected species:

Project is sited in a manner that has little permanent environmental impact on wildlife.

4. Impact on food production and workers:

Minimal impact on food production, significant compensation for lost revenue. (Preferably, co-location of agrivoltaic practices such as sheep grazing, beekeeping, and planting of pollinator and/or low-height shade crops.)

5. Tax Base:

Community is kept informed on PILOT planning, negotiations are transparent and result in average or above-average \$/MW.

Areas to Consider for “Responsible Solar”

6. Local Labor agreements:

Early and substantial discussion with local labor unions resulting in signed contracts on project labor agreements.

7. Community engagement and listening:

Developer opens and staffs a local office, engages with community, sponsors /participates in local community events and modifies project based on feedback. *(Note: This may have been impacted by COVID, but plans to return can also be considered)*

8. Wider community benefits:

Developer assists community with projects such as wetland habitat restoration, endangered species protection, historic preservation, renewable energy education and other long-term projects. “Good neighbor” payments to adjacent landowners. *(Pandemic interference has impacted this area, but would prefer some commitment and effort in this regard as restrictions loosen.)*

Additional Consideration

Indigenous nations consultation.

If a project is to encroach on land of strong historical significance to indigenous people, then ORES and developer should consider appointing indigenous consultants and increase engagement of native nations with proposed sites that might have historic significance or close proximity to native reserves. Also, nearby indigenous presence should lead to outreach on job training and opportunities. *(While all of the Americas were indigenous territory at one time and general engagement is preferred, special care should be taken in this situations).*