



AGENDA MEMORANDUM

August 9th, 2023

Planning Commission Meeting Items

Submitted by: Dana Clawson, Environmental Sustainability Coordinator

Subject: Special meeting to review Norwich Solar's proposed solar array on Braley Dr. and decide if the Planning Commission deems that location to be a *preferred site*.

Background: On June 8th, 2023 the Hartford Planning Commission held a special meeting to review a proposal from Norwich Solar to install a solar array at 96 Braley Dr, Lot # 9-162, in White River Junction. During the meeting residents of Sterling Springs, which abuts the proposed site, voiced concerns over being able to see the array if additional tree removal or development occurred in the future. The Planning Commission asked representatives from Norwich Solar to explore what actions can be taken to address these concerns and return to the Planning Commission for a second meeting to discuss options for addressing the abutters concerns.

This will be the second meeting to discuss the proposed Braley Dr. solar project, the meeting packet contains the same materials that Norwich Solar submitted as the meeting packet for the first special meeting plus two letters of support that have been submitted by Sterling Springs residents.

As a reminder, the proposed system is a 500 kW system and is required to have a *preferred site* designation from the local Planning Commission, Select Board, and Regional Planning Commission. If any of those authorities declines to designate the site as preferred the Public Utilities Commission will not accept the developers application and the project is essentially terminated and will not go before any remaining bodies or the Public Utilities Commission.

Discussion: Preferred siting designation for Norwich Solar's Braley Dr. project:

- Strategies for screening the proposed solar array
- Other concerns about the site.
- Recommendations for the project.

Recommendation: The Hartford Planning Commission makes a motion to approve or reject Norwich Solar's request for a preferred siting designation of the Braley Dr. project.

Hartford Planning Commission Special Meeting
Wednesday, August 9th, 2023 6:00pm
Hartford Town Hall
171 Bridge Street, White River Junction, Vermont
Hybrid meeting- In person and remote

Microsoft Teams meeting

Join on your computer, mobile app or room device

[Click here to join the meeting](#)

Meeting ID: 263 033 709 00

Passcode: cyMbyF

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[+1 802-377-3677,,513457921#](#) United States, Middlebury

Phone Conference ID: 513 457 921#

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If you cannot access the meeting notice electronically or if you are having difficulty connecting to the meeting, please e-mail Dana Clawson at dclawson@hartford-vt.org

- A. Additions/Changes to the Agenda
- B. Public Comment
- C. Norwich Technologies presentation and request for preferred site designation for Braley Drive, Lot # 9-162
- D. Norwich Technologies presentation
- E. Discussion
- F. Motion to approve or not approve preferred designation for this project.

Section 248 TRORC Review Protocol – Preferred Site Letter of Support

Please provide a general site map at the town scale, and at the site scale, showing the entire parcel and lands/E911 structures within 100 meters. Provide other maps as requested. Maps should use public data when easily available.

ANR Atlas is found at <http://anrmaps.vermont.gov/websites/anra5/>

Biofinder is found at <http://anrmaps.vermont.gov/websites/BioFinder2016/>

FEMA Map Service Center <https://msc.fema.gov/portal>

TRORC will review requests for Preferred Site Letters of Support by completing the following table:

	Name of Project: Hartford Braley	
	Date: 05/09/2023 Size of solar project: 500 kW AC	
	Docket No: No document filed at PUC at this time	
	Developer: Norwich Solar	
	Owner: Hartford Braley Solar LLC	
	Is the solar facility site affecting....	Yes/No
1	Provide FIRM map showing FEMA Floodway, if present. ANR Atlas does not have all FEMA maps, so outside of Windsor County use FEMA Map Service Center.	No
	If yes and not on existing building, TRORC will NOT issue Preferred Site Letter of Support.	
	No applicable floodway within project area.	
2	Municipal letters of support from SB and PC, or in TP mapped preferred site?	
	If site does not have both, TRORC will NOT issue a Preferred Site Letter of Support.	
	N/A - draft for informational purposes	
3	Provide FIRM map showing FEMA Special Flood Hazard Area, if present.	No SFHA
	Describe. If yes, provide estimated lowest elevation of panels/inverters etc., floodproofing measures and BFE.	
4	ANR Atlas review – River Corridors	No River Corridor present
	Describe distance to top of bank. Is river in active movement/site likely to erode?	
5	ANR Atlas review – Wetlands	None present
	Describe: Has a wetland delineation been done?	
	Wetland delineation to be completed after preferred site designation received. If any Class II wetlands are identified, the array layout will be outside 50' wetland buffers, within which no disturbance would occur.	
6	ANR Atlas review – Prime Agricultural Soil	None present
	Describe: Is site in active agricultural use?	
	No	
7	BioFinder review – Provide map showing forest blocks and habitat connectors, if present	No habitat connectors or priority forest blocks
	Describe: While not a regulatory review criteria, the project area is not located in a forest block or habitat connector.	

8	Aesthetic/Historic Siting review	
	Provide photo(s) from nearest public road. Is proposed facility visible from public roads or adjacent owners? Are any dwellings within 100 meters? Describe lighting, traffic, fencing, noise, glare. Describe any ground disturbance and tree cutting.	
	See Attachment 1 for narrative response.	
9	Municipal concerns?	
	Describe any issues the town has raised.	
10	ANR Atlas review – Threatened and Endangered Species/significant natural community/deeryards/ critical habitat	No resources identified
	Describe species and provide map.	
	The ANR Atlas review does not identify any records of Threatened and Endangered Species/ significant natural community/deeryards/critical habitat.	
11	TRORC Regional Plan conformance?	
	Describe using Regional Plan and TRORC Energy Implementation Plan:	
	See Attachment 1 for narrative response.	

TRORC will provide a Preferred Site Letter of Support for a renewable energy project when requested by the Town or the developer for projects:

1. That have a level of specificity enough for us to make determinations using the above checklist AND
2. That TRORC has determined there is minimal impact to human and natural resources as illustrated on the checklist AND
3. That have written municipal support from the Selectboard and Planning Commission AND
4. That TRORC finds in conformance with the TRORC Regional Plan

For projects lacking enough detail to make findings, TRORC is not able to issue the Preferred Site Letter of Support.

TRORC will provide a letter of Preferred Site status after completing a review above, finding the project and site in conformance with the Regional Plan, and receiving copies of Preferred Site Letters of Support from the Town SB and PC. Language in the Preferred Site letter will include: “Having made our review, the TRORC wishes to support the Project location as a designated “Preferred Site” under Net Metering Rule Section 5.103 (7). The TRORC does not take a position certifying or approving the Project’s compliance with any other applicable provisions of Vermont law. This letter is solely for the purpose of providing support for designating the site as a “Preferred Site” under Net Metering Rule Section 5.103 (7).



Attachment 1 – Section 248 TRORC Review Protocol Additional Narrative - Hartford Braley

Question 8. Aesthetic/Historic Siting review

A viewshed for a one-mile radius surrounding the proposed solar array was conducted, considering existing topography and vegetation. Based on the results, it is anticipated that the solar array will generally be screened from offsite views due to topographic relief and existing vegetation.

Question 11. TRORC Regional Plan conformance?

Describe using Regional Plan and TRORC Energy Implementation Plan:

This location is consistent with the TRORC Energy Implementation Plan in its efforts to 90% renewable energy within its region and increasing electrification for heating and transportation. Based upon the TRORC Appendix C Energy Targets, Hartford's renewable generation target is 55,873- 68,289 MWh by 2050. In the Regional Energy Implementation Plan TRORC Goals, the first Strategy in meeting Goal A of 25% of remaining energy needs to be from renewables by 2025, 40% by 2035 and 90% by 2050 is Strategy A.1: Support the continued development of renewable energy generation that counts toward the goals of the CEP. The first Action identified therein is TRORC will encourage communities and residents to identify areas with the potential for renewable energy generation. As TRORC sets the goal to increase the amount of renewable energy generated in the TRORC region to 163 MW by 2050, Strategy B.1 states: Facilitate new generation projects through state incentives, better mapping, and clearer local and regional policies. The Plan indicates Solar is the most viable source of new renewable electric energy generation in the TRORC region due to the nature of our topography and land cover. Page 48 of the Plan indicates: Preferred locations come in two forms: state preferred areas that are defined as such in 30 V.S.A. § 8005a (Act 174), and specified locations identified by the town. A Joint Letter of Support is commonly used for towns to specify locations as preferred sites for net-metering projects.



LEGEND

Rare Threatened and Endange

- RTE Animal
- RTE Plant

- Deer Wintering Areas
- River Corridors (Aug 27, 2019)
 - .5 - 2 sqmi.
 - .25-.5 sqmi.
- Soils - Hydric
- Soils - Prime Agricultural

- Local
- Local (b)
- Not rated
- Prime
- Prime (b)
- Prime (f)
- Statewide
- Statewide (a)
- Statewide (b)
- Statewide (c)

Parcels (standardized)

Roads

- Interstate
- US Highway; 1
- State Highway
- Town Highway (Class 1)
- Town Highway (Class 2,3)
- Town Highway (Class 4)
- State Forest Trail

1: 8,923

April 22, 2023



NOTES

20230421 ANR's Natural Resources Atlas

453.0 0 226.00 453.0 Meters

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1" = 744 Ft. 1cm = 89 Meters

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Review Protocol: Considerations for Issuing a Letter of Support

Please provide a general site map at the town scale, and at the site scale showing the entire parcel and lands/ E911 structures within 100 meters. Provide other maps as requested. Maps should use public data when easily available.

ANR Atlas is found at: <https://anrmaps.vcrmont.gov/websites/anra5/>

Biofinder is found at: <https://anrmaps.vermont.gov/websites/BioFindcr/>

FEMA Map Service Center: <https://msc.fcma.gov/portal/home>

The developer will complete the following table. The Hartford Selectboard and Planning Commission will review the completed table to come to a determination about whether to issue a joint letter of support in compliance with the Public Utility Commission Rule 5.103 (7) Preferred Siting.

Name of Project: [Hartford Braley Solar project](#)

Date: [06/08/2023](#)

Size of the solar project: [500 kW AC](#)

Docket No: [N/A](#)

Developer: [Norwich Solar](#)

Owner: [Hartford Braley Solar LLC](#)

1. Is the solar facility site located in a preferred location or prime area? Hartford's hierarchy of sustainability for commercial-scale renewable energy siting located on pp,248-249 of the 2019 Hartford Town Plan has a list of preferred locations and prime areas.

The "Solar Energy Potential" map in the 2019 Hartford Town Plan provides a generalized overview of preferred/prime areas and areas with constraints. As such, it is difficult to identify the exact location of the proposed Project area on the map. The screenshot of the Solar Energy Potential map shown at Attachment 1 shows the general location of the Project parcel, illustrating that the project could be located within a prime area, and that there are no known constraints within the project area.

All project parcels will undergo a site-specific Natural Resource Inventory in compliance with the PUC environmental criteria and the Agency of Natural Resources. As well, the Agency of Agriculture, Farm and Markets has established specific guidance for ground-mount solar proposals that may impact NRCS prime agricultural soils.

2. Is the solar facility site located in an unsuitable area? Unsuitable areas include floodways shown on FEMA Flood Insurance Rate Maps, Class 1 Wetlands as indicated on Vermont State Inventory maps or identified through site analysis, and Wilderness Areas (including National Wilderness

Areas), They also include the Hartford Town Forest & Hurricane Forest Wildlife Refuge. Note, TRORC does not issue a preferred site letter of support if located in an unsuitable area.

- There is no applicable floodway within the Project area.
- Based on a review of the ANR Atlas, there are no wetlands within the Project area. A wetland delineation will be schedule after a preferred site designation is issued. If a Class II wetland is identified, the array will be designed to avoid the wetland and a 50' wetland buffer.
- The Project is not within the Hartford Town Forest/Hurricane Forest Wildlife Refuge or other designated wilderness area.

3. Is the solar facility site located in a constrained area? Table I located on pp.248-249 of the 2019 Hartford Town Plan has a list of potential constraints.

There are no known constraints within the Project area.

4. Is the solar facility site located on a FEMA Floodway? Provide FIRM map showing FEMA floodway and/or FEMA Special Flood Hazard Area if present. Note, TRORC does not issue a Preferred Site Letter of Support if located on a FEMA Floodway and not on an existing building.

The Project area is not located within a FEMA Floodway. See Attachment 2.

5. Is the solar facility site located in a forest block? Does the solar facility site involve clearing trees? Note, TRORC's policy is to deny a request for a letter of support if there is more than .2 acres cleared per 100 kW of name plate capacity and intrusion into forest should be limited to 300 feet or less. Provide BioFinder map showing forest blocks and habitat connectors, if present.

While not a regulated criterion, the project area is not located in a forest block as identified by the ANR BioFinder. There will be trees cut within the project area for the array and shade management. The parcel has already been disturbed as illustrated by the photographs where large openings and few mature trees are visible. See Attachment 3 for pictures of the Project area.

6. Is the solar facility site located on a river corridor? Describe distance to the top of the bank. Is the river in active movement/site likely to erode? Provide ANR Atlas map of the river corridors.

There is no river corridor on the parcel. See Attachment 2.

7. Is the solar facility site located on a wetland? If yes, has a wetland delineation been done? Provide ANR Atlas map of the wetlands in the area.

Based on a review of the ANR Atlas, there are no wetlands within the parcel. A wetland delineation will be schedule after a preferred site designation is issued. If a Class II wetland is identified, the array will be designed to avoid the wetland and a 50' wetland buffer.

8. Is the solar facility site a site in active agricultural use? Provide ANR Atlas map of prime agricultural soil in the area.

The parcel is not in active agricultural use. See Attachment 2.

9. How will the solar facility site impact wild life habitats? Are there any threatened and endangered species/habitats that could be impacted?

The ANR Atlas does not identify any records of Threatened and Endangered Species, significant natural communities or deeryards. See Attachment 2.

10. How will the solar facility site impact the aesthetics of the town? Will the solar facility site be a nuisance? Provide photo(s) from the nearest public road. Is the proposed facility visible from public roads or adjacent owners? Are any dwellings within 100 meters? Describe lighting, traffic, fencing, noise, glare. Describe any ground disturbance and tree cutting.

Due to topographic relief and remaining surrounding vegetation, views of the array will be limited, if any, from public traveled ways. The Project array will meet all PUC regulated setback requirements. Existing vegetation beyond the limits of clearing required for the Project is expected to provide screening. The PV panels will stand approximately 15 feet from the ground at their highest point. Based on the height of the panels and the existing surrounding vegetation, Project visibility from public roads and neighboring properties is expected to be minimal. Solar panels are designed to absorb solar energy and convert it to electricity. As such, solar panels are designed with anti-reflective materials to capture and retain as much of the solar spectrum as possible. Typical solar panels reflect only about 2% of incoming sunlight, which is less than bare soil and vegetation.¹ The Project will not have exterior lighting. The project's installation will involve only short-term, periodic traffic impacts due to deliveries of equipment during installation typical of a small construction project. During operations, the project will be accessed less than once per month unless additional maintenance is required. The Project's design may include an 8- foot-high, wildlife fence with a locked gate. In the event a fence is not required, energized equipment rated for outdoor use will be secured by locked enclosure covers and compliant with NEC code "Guarding of Live Parts." The Project will not cause undue noise. The Project will obtain coverage under the Agency of Natural Resources, Department of Environmental Conservation Stormwater Construction General Permit prior to commencement of installation. Disturbed areas will be seeded and mulched following equipment installation.

11. Does the solar facility site adhere to the goals and guiding principles of the Hartford Town Plan?

The solar facility advances Hartford's 90% renewable by 2040 goal. It also supports the ambitious goal of achieving net-zero greenhouse gas emissions by 2030 set forth in the Joint Resolution Declaring a Climate Emergency. Finally, the Project supports the guiding principles of affordability and sustainability by increasing the supply of renewable, carbon-free power to the distribution grid.

¹Massachusetts Department of Energy Resources, Massachusetts Department of Environmental Protection, and Massachusetts Clean Energy Center. 2015. Questions & Answers: Ground-Mounted Solar Photovoltaic Systems. Available at: <https://www.mass.gov/files/documents/2016/08/rn/solar-pv-guide.pdf>.

12. Does the solar facility site aid in Hartford's transition towards renewable energy and help mitigate the impacts of climate change?

Yes, based upon 2023 US EPA equivalency numbers, the approximately 900,000 kWh/year of electricity that is expected to be generated by the Project equates to 638 metric tons/year of avoided CO2 emissions. This supports the town's goal of generating 56-68 MWh/year of renewable electricity by 2040 and reaching net-zero GHG emissions by 2030.

13. Will the solar facility owner keep the Renewable Energy Credits (RECs) generated by this project?* The language in the Town Plan and the Hartford Climate Action Plan regarding renewable energy development recommend keeping RECs.

The Renewable Energy Credits generated by this project will be transferred to the interconnecting utility (Green Mountain Power) and retired. The RECs support the state's greenhouse gas reduction requirements established in the Vermont Global Warming Solutions Act of 2020.

14. Will the applicant encourage grazing, grassland bird habitat management, or planting of pollinator plant species inside the project area? (Not required, but a positive attribute).

The Applicant will welcome opportunities to encourage sheep grazing or planting of pollinator plant species.

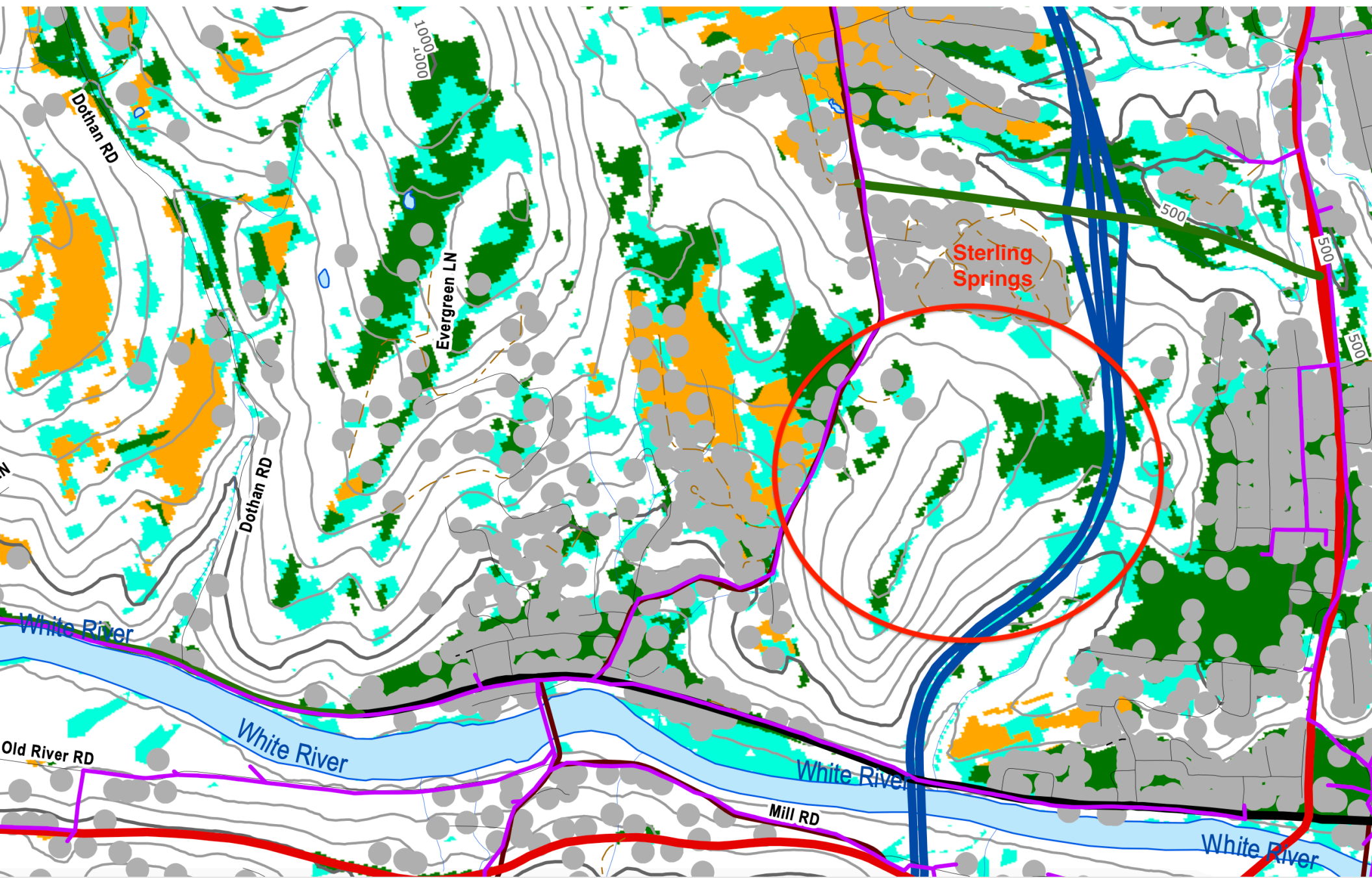
Norwich Solar has experience with agrivoltaics and has worked with farmers to graze sheep within the array, and has planted pollinator plant species within projects. Norwich Solar will support opportunities for agrivoltaics or pollinator plantings provided all conditions of the CPG can be met.

15. Will the plan the applicant submits to the PUC conform to the plans given to the Town?

The preliminary conceptual plan provided to the Town is based on the best, publicly available data. Based upon review of the ANR Atlas, the Project does not anticipate a substantial change to the preliminary conceptual plan at this time. Following a preferred site designation from the Town and TRORC, the Project will complete a site-specific natural resource inventory of state regulated environmental criteria. This site-specific assessment could identify elements that necessitate a modification from the preliminary conceptual plan. A final design will be included in the PUC application for a Certificate of Public Good. the Town will automatically have the opportunity to have party status in the review, participate and comment on the final design.

*RECs represent the environmental attributes of the energy project. If they are relinquished to Green Mountain Power, project owners will not be able to claim that they are using renewable energy & Hartford will not be able to use this project towards meeting its' greenhouse gas reduction goals.

Attachment 1





Hartford Braley Property

Vermont Agency of Natural Resources

vermont.gov



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Location of on-site photos

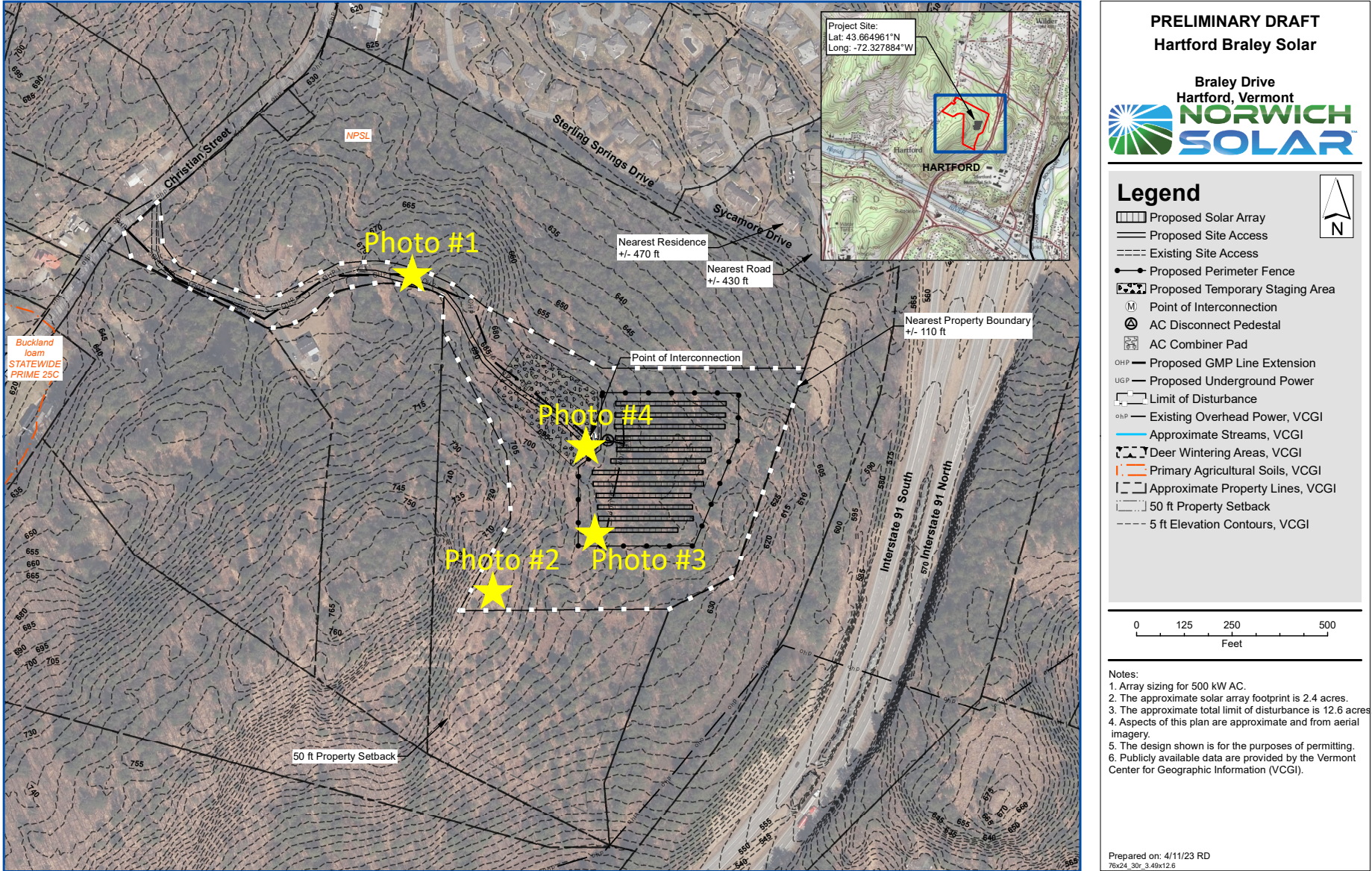


Photo #1 – Existing Access



Photo #2 – Looking northeast towards Project area



Photo #3 – Looking northeast/east towards Project area



Photo #4 – Looking east/southeast towards Project area



Letters of support submitted to the Office of Planning and Development and the Environmental Sustainability Coordinator.

Email received July 5th, 2023

Good morning,

My name is Carol Williams Suich and I live at 19 sycamore drive. I am writing to support community solar project planned for area bordering Sterling Springs, as I believe this is a more sustainable way to support our community based on scientific evidence.

I agree with a buffer on the north facing side(the hill down to Sterling springs as it supports active wildlife.

I have had a trail camera located on Sterling springs property with movement of many wildlife species, including bobcat, bear, many deer, coyote, gray and red fox, turkeys, raccoons, Barred owls and many bird species including mixed wood warblers. Ensuring safe passage for this wildlife is essential.

Diverse views are not often recognized in our HOA and this is an area we need to continue to develop as a community and region through education.

I believe there is enough scientific evidence to support this project at this location.

Carol

Email received July 20th, 2023

My name is Sally Bellew. I live in the Sterling Springs Community which abuts the Steve Davis property where a Hartford- Braley solar array is proposed.

I welcome this planned array as a step away from our dependence on fossil fuels.

4 years ago I "went solar" by buying 16 panels in a community solar array built by Norwich Solar Technologies. This plus an electric heat pump means my Green Mountain Power bills have been between \$20 and \$30 a month year round for heating, air conditioning, and all appliances. I am totally satisfied with my investments. I will be through the so-called "payback period" in another couple of years and after that it'll be smooth sailing with virtually free (and clean) energy for many years to come.

There are those who shun photovoltaic panels out of fear that decades from now no one will know how to recycle them. I do not share that concern. What I AM concerned about are wildfires, air pollution, coral bleaching, tornadoes, outdoor temperatures over 120° Fahrenheit, sea level rise, droughts, famine, mass migration, poor air quality, mass extinctions, harm to public health, from the continued burning of fossil fuels.

ROSI, a French firm, is already recycling PV and many other facilities are in competition to be the first to scale up to meet the demand in 20-25 years. Because the first to succeed will hold the patents. (At present, the average age of panels world wide is only 3-4 years old because it's only recently that solar has been adopted in a big way)

A concern was raised at the last meeting about the need to preserve land that already has town water and sewer for future housing. Very true, the Upper Valley is already in desperate need of more housing. So it's crucial to factor that in. And as I study the map it appears that if this array were to be

built, well over half of the parcel would still be available for future housing development. More housing plus more clean energy seems like a great combination to me.

A solar array of course would not use any water or sewer.

I spoke with Steve Davis roughly 4 years ago and at that time he said that he had purchased that land specifically to build homes (i think he said for low to moderate income) and a community solar array. That plan had been stymied by some new legislation out of Montpelier, but that is what I understood his original vision to be...to have both solar and housing on that property. Of course, his vision might have changed since 4 years ago.

To recap, it appears to me that both housing and a solar array could peacefully coexist on this parcel. Meeting 2 important goals at the same time.