Central Vermont Regional Planning Commission

Project Review Committee

August 17, 2023 at 4:00 pm

To join Zoom meeting:
https://us02web.zoom.us/j/85943387495?pwd=YjZVemI5KzN3Ty9MTjgrMnY1TUJDZz09&from=addon
Meeting ID: 859 4338 7495 Passcode: 234090
One tap mobile [1] 1(305) 224-1968
Download the app at least 5 minutes prior to the meeting start: www.zoom.com

page	AGENDA	
	4:00 pm[2]	**Adjustments to the Agenda**
		Public Comment
2-15	**4:10 pm**	**Act 250 / Section 248 Applications & Projects of Substantial Regional Impact** a) Respond to a Preferred Site Designation Request and consider significant regional impact and conformance with regional plan for the following projects: Duxbury 100 Solar LLC Solar Project – presentation by Norwich Solar b) Review *Project Review Summary* Sheet
16	**4:40 pm**	**New Regional Plan and Preferred Sites Discussion** Staff will share ideas and suggestions for identifying Preferred Sites in the new regional plan which is under development.
	5:30 pm	**Adjourn**

[1] Dial-in telephone numbers are "Toll" numbers. Fees may be charged to the person calling in dependent on their phone service.
[2] All times are approximate unless otherwise advertised

Central Vermont Regional Planning Commission

MEMO

Date: August 15, 2023
To: Project Review Committee
From: Clare Rock, Senior Planner
Re: Duxbury 100 Solar LLC Solar Project: 45-Day Notice & Preferred Site Request

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⌦ **ACTION REQUESTED:** Respond to the Preferred Site Designation Request, and provide any comments on the proposed applications ahead of the filing of the formal petitions.

PROJECT SUMMERY

Norwich Solar is proposing a 500-kW AC group net-metered, ground-mount solar electric system to be installed off Route 100 in Duxbury. The property is the 37.78± acre Town gravel extraction and maintenance site located across from the town garage and municipal office building. The array footprint will utilize approximately 2± acres. The attached 45-day Notice includes information about the project and a preliminary site plan. In order to procced with the project and be eligible to submit a Petition for a CPG (Certification of Public Good) under Rule 5.100[1] the developer needs to obtain a Preferred Site Designation[i] letter from CVRPC.

Project Timeline

June 26, 2023	Duxbury issues Preferred Site Letter signed by members of the Select Board and Chair of the Planning Commission (copy attached)
July 27, 2023	Advanced Notice for Duxbury 100 Solar LLC Solar Project is issued (copy attached)
July 27, 2023	Email request for Preferred Site Designation in received by CVRPC

STAFF REVIEW

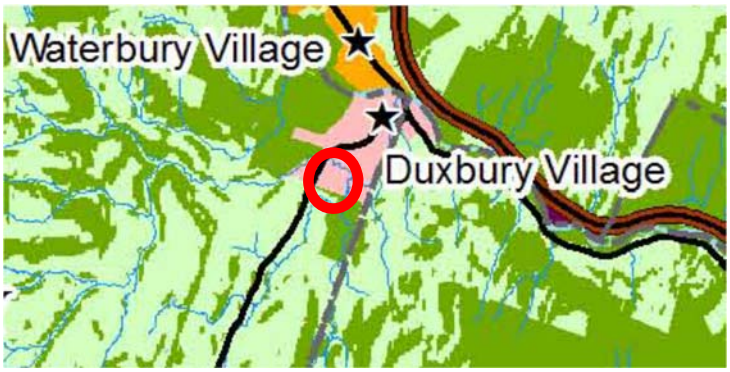
To aid in the Committee's review and anticipated action item for a Preferred Site Designation request staff recommends the Committee consider:

[1] Rule Pertaining to Construction and Operation of Net-Metering Systems

a) The sites' relationship to its Land Use Planning Area as defined in the Regional Plan;
b) Direction provided in the Energy Element and incorporated Regional Energy Plan; and
c) The development's known impacts related to other goals and policies of the Regional Plan.

a) Land Use Planning Area

Below is a subset of the Regional Future Land Use Map illustrating the location of the solar site. The site in located in the Town Center Planning Area (area shaded in pink.)



Town Centers are defined as "less densely populated settlements and smaller than regional centers, but similarly accommodate many of the same residential, civic, commercial and light industrial uses." And typically include a state-designated village center, local road network and availability of public utility infrastructure, relatively dense development and smaller lot sizes (1 unit per acre or higher), a mix of land uses, and a distinct separation from surrounding rural areas.

Commercial scale renewable energy generation systems do not always equate to commercial-type land use planning areas. Commercial scale renewable energy generation systems range from 15kw to <1 MW is size. A 500 kW system is considered a medium to large scale commercial system (and systems over 500 kW do not qualify for preferred site incentives.)

A commercial scale solar energy project would not generate the same level of impacts (traffic, stormwater runoff, noise and odor) of a commercial or industrial land use.

Regional Plan Policies for Town Center Planning Areas generally support the development of infrastructure in those locations. There are no specific policies which speak directly to this type of development.

- **Staff Suggestion: The Committee should decide of whether the proposed project is in conformance with the Town Center Land Use Area.**

b) Energy Element and Regional Energy Plan

Both the Energy Element and the Energy Plan (as contained within the Regional Plan appendix) state that it is the responsibility of the local municipality to determine a Preferred Site. The Energy Element states on page 3-7:

> *Siting of all renewable energy generation facilities will take careful planning to ensure infrastructure (including three phase power), land use regulations (including zoning if applicable), and community support exists before the development can occur. In this regard the Central Vermont Regional Energy Plan does not specify locations beyond what has been identified by the state as preferred locations for renewable energy generation. This will provide opportunities for each municipality to identify locations that are preferred or restricted based on local insights and interests.*

The Chapter also includes the following Goal and Policy:

> *GOAL: Renewable energy generation is sited to maximize potential while minimizing locally identified impacts.*
>
> *Policy: Evaluate generation from potential renewable energy generation by municipality including the identification of constraints, resource areas, and existing infrastructure by energy type.*

As contained within the Regional Energy Plan (see Appendix of Regional Plan, page 35)

> *The Regional Energy Committee further concluded that the final determination and identification of suitable sites would be left to the individual municipalities as they develop and evaluate their needs, development patterns, and future land use goals….Finally, the Central Vermont Regional Energy Plan supports the development of renewable energy generation technology that will not result in an undue adverse impact on the built or natural environment or conflict with identified regional policies.*

Energy Plan Maps -

- Known Constraints Map: no Known Constraints identified
- Possible Constraints Map: the following Constraints identified
    - Highest Priority Forest Blocks [located on the site but not in the vicinity of the project]
    - Agricultural Soils (include local, Prime and Statewide)[located in the vicinity of the project]
- Solar Source Resource Map: the location appears to be a Secondary site. Secondary sites are generally defined as having solar potential and may have the presence of Possible Constraints (in this case principally Agricultural Soils.)

Appendix A of the Regional Plan contains "Known & Possible Constraint Definitions & Descriptions" Appendix B contains the "Regional Resource Maps." Attached to this staff review are the above-mentioned maps with the project locations circled in red.

As defined in the Regional Plan, "Agricultural Soils" are:

> *Soil map units with the best combination of physical and chemical characteristics that have a potential for growing food, feed, and forage crops, have sufficient moisture and drainage, plant nutrients or responsiveness to fertilizers, few limitations for cultivation or limitations which may be easily overcome, and an average slope that does not exceed 15 percent. Present uses may be cropland, pasture, regenerating forests, forestland, or other agricultural or silvicultural uses.*
>
> *The soils must be of a size and location, relative to adjoining land uses, so that those soils will be capable, following removal of any identified limitations, of supporting or contributing to an economic or commercial agricultural operation. Unless contradicted by the qualifications stated above, primary agricultural soils include important farmland soils map units with a rating of prime, statewide, or local importance as defined by the Natural Resources Conservation Service of the United States Department of Agriculture.*

The Soils present on these sites are classified as "Statewide", meaning that they are classes 4-7 and have more limited agricultural value due to slope, excessive wetness or shallow depth to bedrock. Please see the attached print-map from the Agency of Natural Resources Atlas. Relevant goals, policies, and strategies in the Regional Plan include:

- *"CVRPC supports and encourages the protection and continued productivity of viable primary agricultural soils, productive forest land, and mineral resources. Sound land use planning, including flexible development options, fair government pricing taxation and subsidy programs, agricultural diversity, and promotion of value-added products and industries are viewed as means to this end." (Land Use, 2-37)*

To review the sections of the Regional Plan which have been referenced within this memo visit: https://centralvtplanning.org/wp-content/uploads/2020/11/2016-CVRPC-Regional-Plan-amended-2020.pdf

- **Staff Suggestion: The Committee should make a determination of whether the proposed projects do minimize locally identified impacts as stated in the Goal above.**

c) Other Goals and Policies of the Regional Plan

Beyond Land Use Planning Areas, the Regional Plan uses its goals and policies to address other impacts and to direct development and conservation. However, nearly all policies in the Regional Plan use advisory language (should, encourage, discourage, where feasible). Advisory policies do not offer substantial guidance in development review because they can be interpreted in different ways for different developments and may be interpreted inconsistently. Staff found there to be no other specific Goals or Policies about development on agricultural soils.

- **Staff Suggestion: The Committee should decide whether the proposed project is in conformance with the Regional Plan. If it is then consider providing a Preferred Site Letter.**

Attachments:

1. 45-Day Notice (includes preliminary site plan.)
2. Preferred Site Letter signed by the Town of Duxbury
3. Energy Map: Known Constraints
4. Energy Map: Possible Constraints
5. Energy Map: Solar Resource Map

[i] a preferred site means one of the following:
(1) A new or existing structure whose primary use is not the generation of electricity or providing support for the placement of equipment that generates electricity;
(2) A parking lot canopy over a paved parking lot, provided that the location remains in use as a parking lot; (3) A tract previously developed for a use other than siting a plant on which a structure or impervious surface was lawfully in existence and use prior to July 1 of the year preceding the year in which an application for a certificate of public good under this Rule is filed. To qualify under this subdivision
(3), the limits of disturbance of a proposed net-metering system must include either the existing structure or impervious surface and may not include any headwaters, streams, shorelines, floodways, rare and irreplaceable natural areas, necessary wildlife habitat, wetlands, endangered species, productive forestlands, or primary agricultural soils, all of which are as defined in 10 V.S.A. chapter 151;
(4) Land certified by the Secretary of Natural Resources to be a brownfield site as defined under 10 V.S.A. § 6642;
(5) A sanitary landfill as defined in 10 V.S.A. § 6602, provided that the Secretary of Natural Resources certifies that the land constitutes such a landfill and is suitable for the development of the plant; (6) The disturbed portion of a gravel pit, quarry, or similar site for the extraction of a mineral resource that was in lawful operation on January 1, 2017, provided that all activities pertaining to site reclamation required by applicable law or permit condition are completed prior to the installation of the plant; 2
(7) A specific location designated in a duly adopted municipal plan under 24 V.S.A. chapter 117 for the siting of a renewable energy plant or specific type or size of renewable energy plant, provided that the plant meets the siting criteria recommended in the plan for the location; or a specific location that is identified in a joint letter of support from the municipal legislative body and municipal and regional planning commissions in the community where the net- metering system will be located.
(8) A site listed on the National Priorities List (NPL) established under the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. chapter 103, if the U.S. Environmental Protection Agency or the Agency of Natural Resources confirms each of the following that the site is listed on the NPL;
(9) On the same parcel as, or directly adjacent to, a customer that has been allocated more than 50 percent of the net-metering system's electrical output. The allocation to the host customer may not be less than 50 percent during each of the first 10 years of the net-metering system's operation.

NORWICH SOLAR™

GENERATING A BRIGHTER ENERGY FUTURE

July 27, 2023

To Those Persons Whose Names Appear on the 45 Day Notice List Attached Hereto

Re: Advanced Notice for Duxbury 100 Solar LLC Solar Project
Vermont Statutes Title 30 Section 8010/248 Permit Process

Introduction

Pursuant to Public Utility Commission ("PUC") Rule 5.100, Duxbury 100 Solar LLC ("Applicant") is providing you advance notice of plans to seek a certificate of public good ("CPG") under 30 V.S.A. §§ 248 and 8010 for a 500-kW AC group net-metered, ground-mount solar electric system to be installed off Route 100 in Duxbury, Vermont (the "Project"). We anticipate filing a request for a CPG with the PUC on or after September 11, 2023. This letter describes the Project, the expected application filing date, and your rights to comment on the Project in advance of the filing.

Duxbury residents voted at the 2022 Town Meeting to authorize the Duxbury Selectboard to pursue a solar array at the site of the Town's former gravel pit. After a competitive solicitation, Norwich Solar, a division of Norwich Technologies, was selected to design, install and operation the solar array. Duxbury 100 Solar LLC is member-managed by Norwich Technologies, Inc. Norwich Technologies is a leader across Vermont, New Hampshire, and Maine in integrating and deploying renewable energy to reduce the carbon footprint of local municipalities, businesses, and individuals. We work with community service institutions, schools, and businesses large and small.

Project Background and Description

The Project's preliminary site plan accompanies this letter and identifies the array's location, primary components, and access. The property is the 37.78± acre Town gravel extraction and maintenance site (SPAN: 189-060-10160) accessed off Vermont Route 100. The array footprint will utilize approximately 2± acres.

The solar array will be comprised of photovoltaic modules ("solar panels") on fixed-tilt, supporting racks typical of other fixed-tilt solar arrays of similar size throughout Vermont. The racks are designed to support the bottom of the solar panels approximately 3 feet above grade to the top of the panels at approximately 15 feet. The array will be arranged in multiple rows running generally east-west with sufficient distance between the rows to minimize self-shading. The solar array may include a wildlife fence or, if not fenced, will be otherwise electrically secure and compliant with the National Electric Code.

The solar panels will be connected electrically with string inverters mounted discretely behind the panels on the support racking. The power will travel underground between the rows to an AC disconnect, and then interconnect to the nearby Green Mountain Power ("GMP") distribution circuit via a GMP line

extension to new GMP pole-mounted transformers adjacent to the array. The transformers are typical of what GMP uses throughout their distribution system.

Installation materials and equipment will be transported to the site by standard-size delivery vehicles over state and local roads. Traffic will be typical of small construction jobs.

Project Benefits

The Project creates several benefits with local and statewide significance. For example, the Project supports numerous clean energy economy jobs from environmental assessments, engineering design, and development work through installation, operation, and maintenance tasks. The Project will purchase equipment, materials, and supplies from Vermont businesses, where commercially feasible. The Project will generate annual lease payments to the Town and will annually contribute to state and local taxes.

Importantly, the Project is an in-state new renewable energy resource that will help reduce our dependence on out-of-state electricity sources (likely from fossil fuel or nuclear energy) and emit no air pollutants (including CO2) in generating electricity. It will benefit local electric customers and Vermont's economy with clean power from local resources, strengthening the growth of our resilient electrical system. The Project will further the Town's renewable energy goals and contribute to achieving Vermont's greenhouse gas emission reduction requirements established in the Vermont Global Warming Solutions Act. Any utility line or equipment upgrades required to interconnect the array to the local distribution system will be paid for by the Project, with no impact to ratepayers.

Potential Aesthetic Impacts

The Town parcel has been previously disturbed and utilized as a gravel extraction site. The array footprint of approximately 2± acres is proposed in an existing open area surrounded by vegetation along the property boundary and other Town maintenance operations. The Project Limit of Disturbance ("LOD") for the solar array, temporary staging and shade management is currently proposed to be approximately 4.4± acres. Following installation, the site will be maintained with vegetative ground cover.

The low-profile solar array will appear like other fixed-tilt, ground mounted renewable energy solar arrays commonplace in Vermont. The site is screened from public views along Vermont State Route 100 by topography and the existing vegetation surrounding the area. The array is proposed to be setback approximately 105± feet from Vermont State Route 100 and 200± feet from the nearest residence. The low profile of the array, the natural vegetative screening and surrounding topographic relief will filter visibility. For these reasons, no landscape screening is currently proposed. A full aesthetic review will be included with the CPG application.

Potential Environmental Impacts

The Applicant's preliminary analysis shows the array is not expected to have an undue adverse impact on the natural environment. A class II wetland has previously been identified east of the array footprint. The Project is designed to avoid the wetland and its 50-foot buffer. Although the Natural Resources Conservation Service ("NRCS") identifies prime agricultural designated soils within the Project LOD, the area has been previously disturbed from gravel extraction operations. The array does not require on-site septic or water supply systems and the Project will be monitored remotely. Installation of the array will

be compliant under the VT Agency of Natural Resources (ANR) Stormwater Program and with Vermont Standards & Specifications for Erosion Prevention and Sediment Control (2020). A natural resource assessment addressing all relevant environmental criteria will be included with the Application.

Your Ability to Comment on the Project

You are entitled to make recommendations to the Vermont Public Utility Commission and to us, at least 7 days prior to the expiration of this 45-day notice period. All adjoining landowners and the Town will receive notice of the Application and will be able to access the filing at the PUC's electronic filing system (https://epuc.vermont.gov/) once the Commission determines the Application is administratively complete. Public comments may also then be submitted within 30 days. The public may participate in proceedings before the Commission by intervening as a formal party to a case. The Selectboard and Planning Commission have the right to appear as a party in any proceedings held. For additional information regarding this process, including your right to participate in the PUC's proceeding, please refer to the Commission's documents and links (https://puc.vermont.gov/public-participation).

We welcome your comments on the Project. Please feel free to reach me by phone at 802-281-3213 or by email at permitting@norwichsolar.com if you are interested in learning more about the Project, have comments or suggestions for the proposal, or would like to learn more about Norwich Solar.

We appreciate your participation in this process.

Sincerely,

Geoff Martin
Development Project Manager
Norwich Solar

Appendices:
Attachment A – 45 Day Notice List
Attachment B – Preliminary Site Plan

Attachment A

45 Day Advance Notice Service List

Via First Class Mail

Duxbury Selectboard
5421 VT Route 100
Duxbury, VT 05676

Duxbury Planning Commission
5421 VT Route 100
Duxbury, VT 05676

Central Vermont Regional Planning Commission
29 Main Street, Suite 4
Montpelier, Vermont 05602

Town of Duxbury
5421 VT Route 100
Duxbury, VT 05676
(Landowner)

Adjoining Landowners to the site property:

Union School District No 45
47 Stowe Street
Waterbury, VT 05676

JSN LLC
174 Stevens Brook Road
Duxbury, VT 05676

Robert & Kathryn Grace Co Trustees
144 S Main Street
Waterbury, VT 05676

Burton & Rebecca Green
5300 VT Route 100
Duxbury, VT 05676

Scott Silberstein & Erin Hudeck
5251 VT Route 100
Duxbury, VT 05676

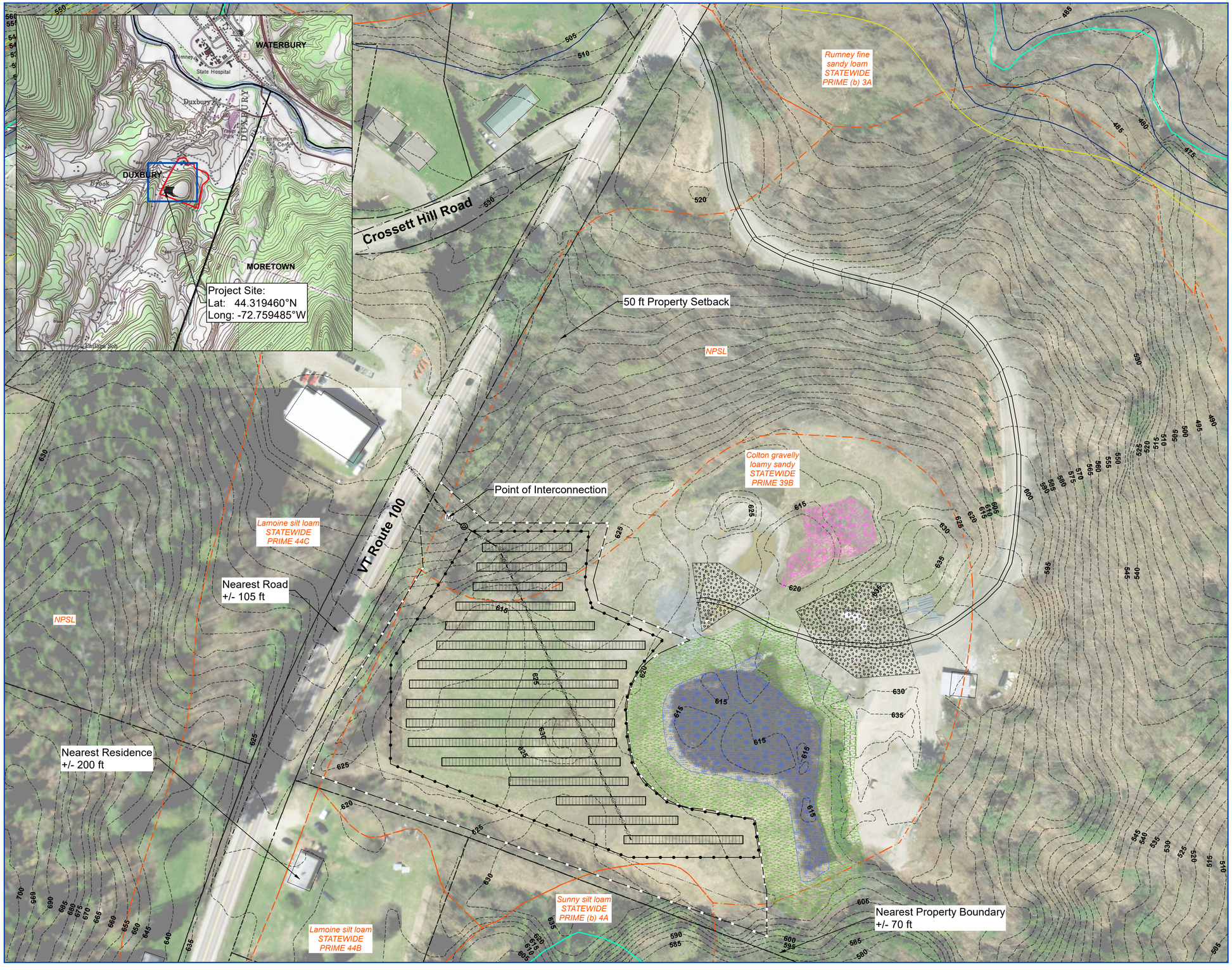
Glenn & Resma Towne
3361 Crossett Hill Road
Duxbury, VT 05676

Justin & Rebecca Blackman, Judith Douglas (Life Estate)
5563 VT Route 100
Duxbury, VT 05676

Ted & Susan Carminati
5611 VT Route 100
Duxbury, VT 05676

Via Vermont Public Utility Commission Electronic Filing System:

VT Department of Public Service
VT Agency of Natural Resources
VT Division for Historic Preservation
VT Agency of Agriculture Food and Markets
VT Agency of Transportation
VT Natural Resources Board
Green Mountain Power



PRELIMINARY DRAFT

Duxbury 100 Solar

Vermont Route 100 Duxbury, Vermont

NORWICH SOLAR™

Legend

- Proposed Solar Array
- Existing Site Access
- Proposed Perimeter Fence
- Proposed Temporary Staging Area
- Point of Interconnection
- AC Disconnect Pedestal
- AC Combiner Pad
- Proposed GMP Line Extension
- Proposed Underground Power
- Limit of Disturbance
- Existing Overhead Power, VCGI
- Class II Wetland, Duxbury
- Class III Wetland, Duxbury
- 50 ft Wetland Buffer
- Streams, VCGI
- Deer Wintering Areas, VCGI
- River Corridors, VCGI
- 100 Year Floodplain, VCGI
- Primary Agricultural Soils, VCGI
- Approximate Property Lines, VCGI
- 50 ft Property Setback
- 5 ft Elevation Contours, VCGI

N

0 75 150 300

Feet

Notes:
1. Array sizing for 500 kW AC.
2. The approximate solar array footprint is 2 acres.
3. The approximate total limit of disturbance is 4.4 acres.
4. Existing conditions provided by the town of Duxbury.
5. Aspects of this plan are approximate and from aerial imagery.
6. The design shown is for the purposes of permitting.
7. Publicly available data are provided by the Vermont Center for Geographic Information (VCGI).

Prepared on: 12/9/22 RD
84x24_27r_3.49x12.6

Town of Duxbury, VT

BY MAIL

June 26, 2023

Public Service Board of Vermont
112 State Street
Montpelier, VT 05620-2701
Ms. Judith Whitney, Clerk
PUC.Clerk@vermont.gov

Re: Preferred Siting Designation under Rule 5.100

Dear Ms. Whitney,

Representatives of Duxbury 100 Solar LLC have reached out to us and shared information on a 500 kW-AC solar electricity generation project (the "Project") proposed on Town property at the 5536 Rt 100 gravel pit parcel in Duxbury, VT, latitude, longitude of 44.319460°N, -72.759485°W, (the "Location"). Having made our review, we wish to designate the Location as a "Preferred Site" under Section 5.103 of your Rule 5.100.

Please note that we take no position on the Project's compliance with any requirement of Rule 5.100 or of other applicable provisions of Vermont law. This letter is solely for the purpose of providing support for the Project under Section 5.103.

Sincerely,

Duxbury Selectboard

Duxbury Planning Commission

By:

Title: PLANNING COMMISSION CHAIR

Richard Charland

Ann Harvey

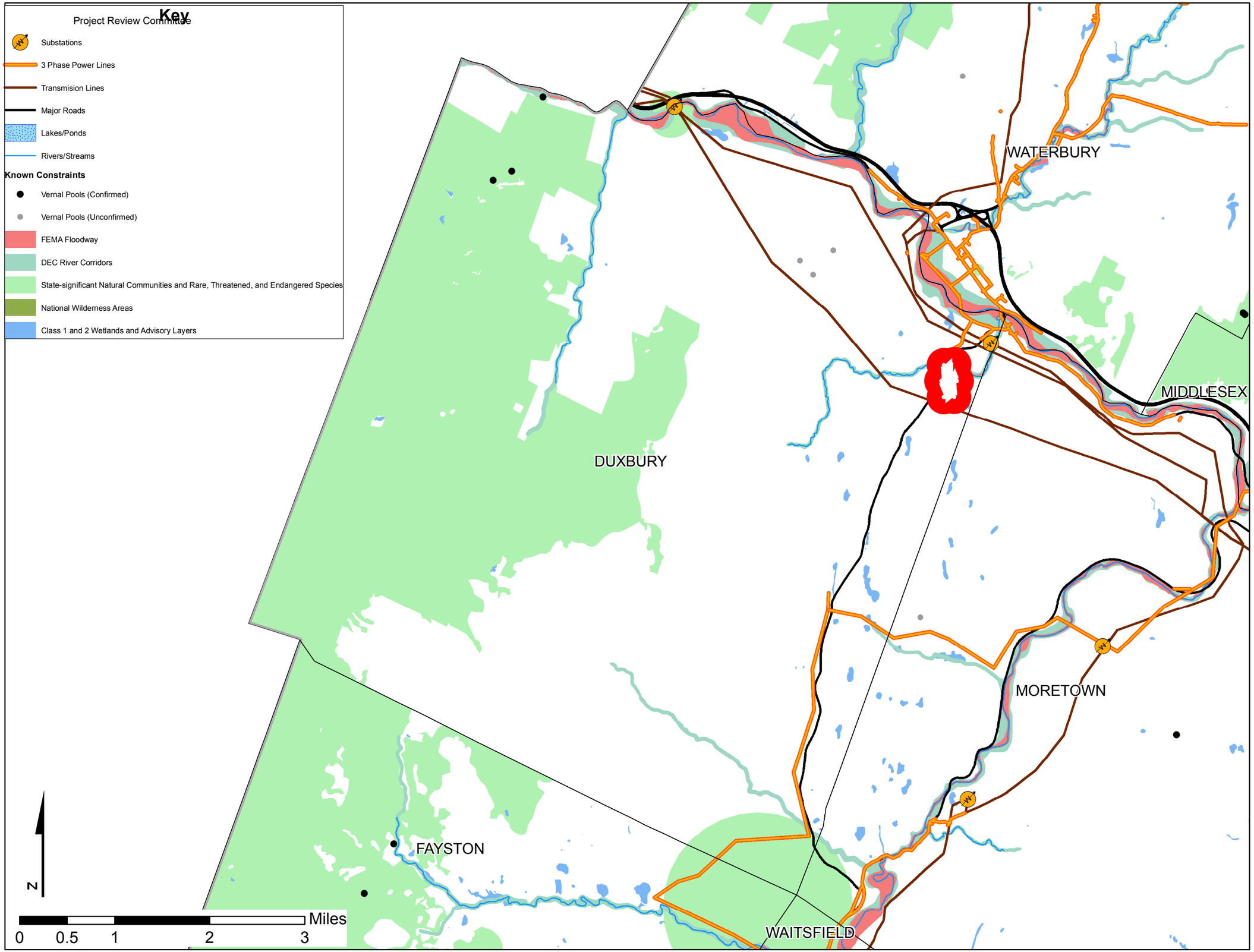
Patrick Zachary

Jerry McMahon

Jamison Ervin

DUXBURY 13

Known Constraints Map



Known Constraints

These constraints signal likely, though not absolute, unsuitability for development based on statewide or local regulation or designated critical resources.

Link to Data -
http://vcgi.vermont.gov/opendata/act174

Known Constraints
Vernal Pools incuding confirmed and unconfirmed -
Vermont Fish and Wildlife
DEC River Corridors -
DEC WSMD Rivers Program 1/2/15
FEMA Floodway included in Zones AE -
FEMA Map Service Center
State-significant Natural Communities and Rare, Threatened, and Endangered Species -
Vermont Fish and Wildlife, Natural Heritage Inventory
National Wilderness Areas -
USDA Forest Service
Class 1 and Class 2 Wetlands (VSWI) and Advisory Layers - VT Watershed Management Division

This map was created as part of a Regional Energy Planning Initiative being conducted by the Bennington County Regional Commission, and the Vermont Public Service Department.

Created: December 2016 by CVRPC GIS.

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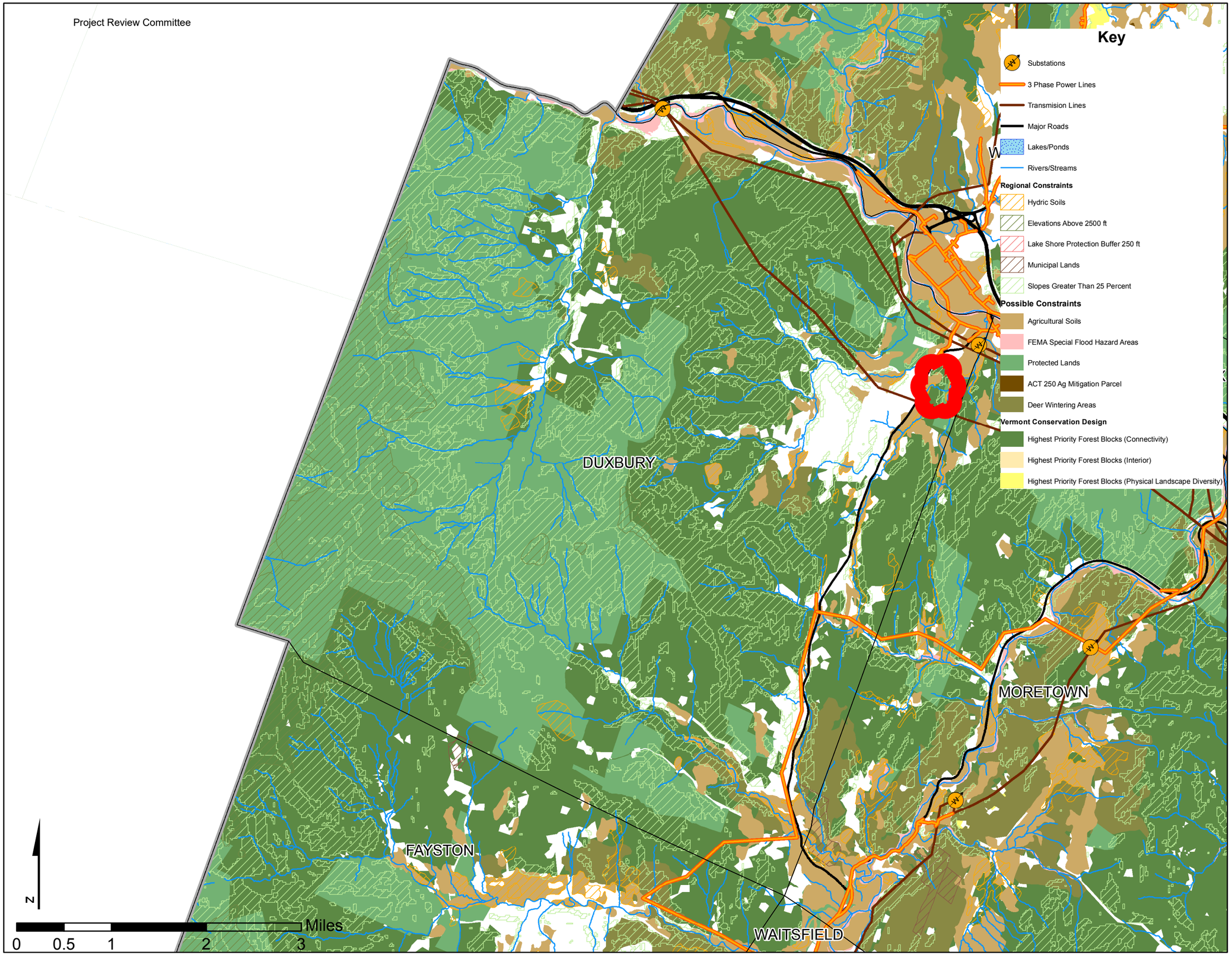
CENTRAL VERMONT REGIONAL PLANNING COMMISSION

DUXBURY

Possible Constraints Map



Possible Constraints

These constraints signals conditions that would likely require mitigation, and which may prove a site unsuitable after site-specific study, based on statewide or regional/ local policies that are currently adopted or in effect.

Link to Data - http://vcgi.vermont.gov /opendata/act174

Possible Constraints Data Sources
Agricultural Soils include local, prime and statewide classifications - NRCS
FEMA Special Flood Hazard Areas include Zones A and AE - FEMA Map Service Center
Protected Lands - Include State fee lands and private conservation lands - VCGI
Act 250 Ag Mitigation Parcels include parcel as of 2006 - VT Dept. of Ag
Deer Wintering Areas - VT Fish and Wildlife
Vermont Conservation Design include the following Highest Priority Forest Blocks: Connectivity, Interior, and Physical Landscape Diversity) - VT Fish and Wildlife
Hydric Soils include soils that have hydric named components in the map unit - NRCS

This map was created as part of a Regional Energy Planning Initiative being conducted by the Bennington County Regional Commission, and the Vermont Public Service Department.

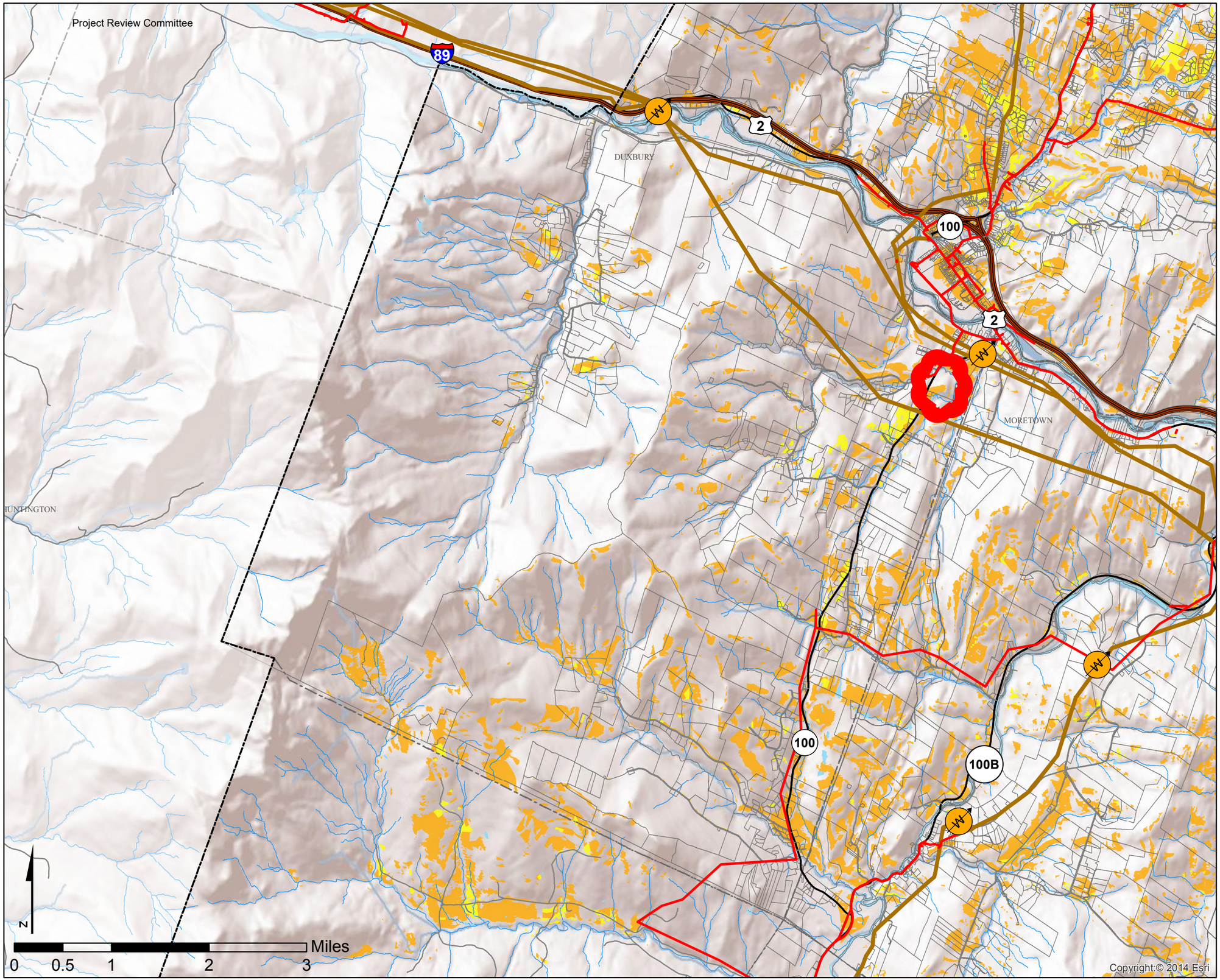
Created: December 2016 by CVRPC GIS.

CVRPC
CENTRAL VERMONT REGIONAL PLANNING COMMISSION

Project Review Committee

DUXBURY

Solar Resources Map



Legend

- Substations
- 3 Phase Power Lines
- Distribution Lines

Solar Potential

- Prime (No Constraint)
- Secondary (Possible Constraint)
- Parcels

Roads

- Interstate
- US Highway
- Vermont State Highway
- Town Class 1-3

Known Constraints

Areas not shown on map
Vernal Pools
River Corridors
FEMA Floodways
Natural Communities & Rare, Threatened and Endangered Species
National Wilderness Areas
Wetlands Class 1 and 2

Possible Constraints

VT Agriculturally Important Soils
FEMA Special Flood Hazard Areas
Protected Lands
Act 250 Agricultural Soil Mitigation Areas
Deer Wintering Areas
Highest Priority Forest Blocks
Hydric Soils
Elevations Above 2500Ft
Lake Shore Protection Buffer 250 Ft
Municipal Lands
Slopes Greater Than 25 Percent

Created by: CVRPC GIS 4/4/2017
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Act174_Energy\Solar Resources 11X17

Data is only as accurate as the original source materials.
This map is for planning purposes.
This map may contain errors and omissions

CVRPC
CENTRAL VERMONT REGIONAL PLANNING COMMISSION

Central Vermont Regional Planning Commission

Date: 08/14/2023
To: CVRPC Project Review Committee
From: Sam Lash, Climate & Energy Planner
Re: **Rethinking Preferred Siting and RPC Project Support- what do we WANT to see on the ground?**

Background:
As part of the regional plan update, CVRPC Energy maps are being updated to be consistent with the Climate Action Plan and 2022 Act 174 standards, including an emphasis on balancing emphases on forest lands for sequestering and storing carbon, working lands and recreation, and, critically, increasing the reliability of our energy infrastructure (particularly in our more rural communities). Currently, regional and municipal mapping tools are predominantly used to identify areas unsuitable for development, but importantly they can also be used to guide decision-making around identified potential (and preferred) areas for renewable energy development to meet regional energy demand, reduce energy burden, and contribute to the state energy and climate goals.

Underlying assumptions were made about suitability factors, such as slope and direction of land, elevation and wind speeds, and access and proximity to grid-related infrastructure. Additional statewide layers identify known constraints and possible constraints[1]:
Known constraints are areas not likely to be developed for renewable energy because they contain one or more of the following: vernal pools; river corridors; FEMA floodways; significant natural communities; rare, threatened and endangered species, national wilderness areas, wetlands (Class 1 and Class 2).
Possible constraints are areas that would likely require mitigation because they contain one or more of the following: agricultural soils; special flood hazard areas (outside of the floodway); protected (conserved) lands; deer wintering areas; Act 250 mitigated agricultural soils; hydric soils, highest priority forest, connectivity, and physical landscape blocks, and highest priority surface water and riparian areas.
State preferred sites are defined by:

- Local choice, existing rooftops, parking lots, brownfields, sanitary landfill, gravel pits, National Priorities List NPL), and sites where at least 50% of the power is used on site…
    - A specific location designated in a duly adopted municipal plan under 24 V.S.A. chapter 117 for the siting of a renewable energy plant or specific type or size of renewable energy plant, provided that the plant meets the siting criteria recommended in the plan for the location.
    - Specific location that is identified in a joint letter of support from the municipal legislative body and municipal and regional planning commissions in the community where the net-metering system will be located.

[1] Want to learn more about the Act 174 Mapping Tool? Revisit Part II of the Municipal Solar webinars offered this year here: Webinars and Workshops - Central Vermont Regional Planning Commission (centralvtplanning.org)

Currently as a region we have adopted few additional regional and local constraints/preferred sites:

- Additional potential constraints (regional) include elevations above 2,500ft, slopes greater than 25%, 250ft lakeshore protection buffers, and municipal lands
- No additional preferred regional sites
- Some municipalities include slightly lower elevation maxima (1800ft in Northfield, 1700ft in Waitsfield), prohibit development in specific conservation and historic districts (Fayston, Northfield, Waitsfield), active farmland (East Montpelier, Northfield, Waitsfield), and flood hazard areas and river corridors (East Montpelier)
- Additional local preferred sites include: industrial areas, near schools and community spaces, etc. commercial sites, adjacent to large farms.

As we update our regional plan, it is the perfect time to consider how we might best maximize & utilize the opportunity to define preferred sites and shape the form and benefits of implementation in our region- this can have lasting impacts on investment in and across our region (including the deployment of storage and 3-phase power) and thus the reliability, resilience, affordability, and accessibility of our energy infrastructure, the energy burden of our residents, and the ability for our communities and businesses to thrive

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A New Regional Approach and Possible Preferred Siting+ Criteria

For healthy communities to thrive (not just be resilient), local leaders should look to programs and policies that encourage locally generated and managed fossil-fuel-free energy, while prioritizing access and affordability for historically underserved community members[2]. Providing renewable power and services close to where it is used, also known as distributed energy resources (DERs), has multiple benefits including the potential to lower costs for consumers, improve the reliability and resilience of the grid and increase equity among community members. We want to encourage communities to assess local potential renewable energy projects and adopt an enhanced energy plan that identifies and prioritizes energy efficiency and generation goals and renewable energy siting that is actively desirable and beneficial to the community at large.

Here is a DRAFT of a LAUNDRY List of ideas for discussion:

Additional Landscape Level Considerations:

- Proximity to 3-phase power
- Proximity (what is close?)
- Resilience (distribution across region, co-location)
    - Preference for siting DERs where reliability is lowest (e.g. SAIDI and SAIFI score;

[2] **Did you know that**? Black, Indigenous, People of Color, (BIPOC), as well as low-income, and rural Vermonters have largely been left out from major economic, social, and environmental benefits associated with investments in climate resilience and renewable energy infrastructure. BIPOC Vermonters were seven times more likely to have gone without heat in the past year, over two times more likely to have difficulty affording electricity, and seven times less likely to own solar panels than white Vermonters (Act 154 Sec 1.10), while rural and low-income communities consistently carry the highest energy burden.

frequency&duration of outages))

Co-benefits:

- Sizing (community scale)
- **Dual-land use:** Support the economic viability of farms through appropriate renewable energy development as a complementary use that keeps farms in agricultural production while preserving agricultural soils and working lands
    - Agriculture
    - Pollinator gardens (reseeding to active management)
    - Grazing
    - Guide to Solar Energy in Vermont's Working Lands (2021)
- Limiting vegetation disruption (particularly tree removal)
- Proximity to Use
- Co-location with storage
- Resilience (distribution across region, co-location)
    - Preference for siting DERs where reliability is lowest (e.g. SAIDI and SAIFI score; frequency&duration of outages)

Other:

- Construction method (footings)→ concrete alternatives (reduce embodied carbon of project)
- Community Benefit Agreements: legal agreements between community benefits groups and developers, stipulating the benefits a developer agrees to fund or furnish, in exchange for community support of a project. Could include (see more here):
    - Commitment to hire directly from community
    - Contributions to economic trust funds
    - Local workforce training
    - Infrastructure investment
- Preference for community solar, off-taker/programmatic bonuses?

So what would we DO with these (next steps)? Potential deliverables to support 248a review process In line with Regional Plan:

- Rubric including how we define and evaluate preferred sites
    - (Criteria plus guiding questions perhaps drawn from the Vermont Climate Council's Guiding Principles for a Just Transition)
- Build rubric into letter template (of support)
- Overall process;
    - Are there criteria we use to determine if a project can/will be eligible for reviewing (considering letter of support) (defining substantial impact or simple in line with our goals?)
    - If it meets a minimum number of preferred siting criteria automatically considered for review? Or automatically approved?