Norwich PC Solar Siting Working Group
Special Meeting – March 17th, 2025, 6:30 pm

To be held via Zoom only:
Topic: Solar Siting Working Group Special Meeting
Time: March 17th, 2025 6:30PM PM Eastern Time (US and Canada)
Join Zoom Meeting
https://us02web.zoom.us/j/83331125539
Meeting ID: 833 3112 5539
• 888 475 4499 US Toll-free

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1. Approve Agenda
2. Public comment for items not on agenda
3. Continue Review Act 174 Mapping Constraints in context of Standard 12 – Map - *Potential areas for the development and siting of renewables*
4. Discuss Preferred and Potential recommendations
5. Approve minutes
6. Public comment
7. Adjourn

Enclosures:

1. Minutes from 10-29-2025
2. TRORC Act 174 Mapping.pdf
3. Enhanced Energy Planning Guide

Existing Energy Generation

This map was created as part of a Regional Energy Planning Initiative.
Created: 2025

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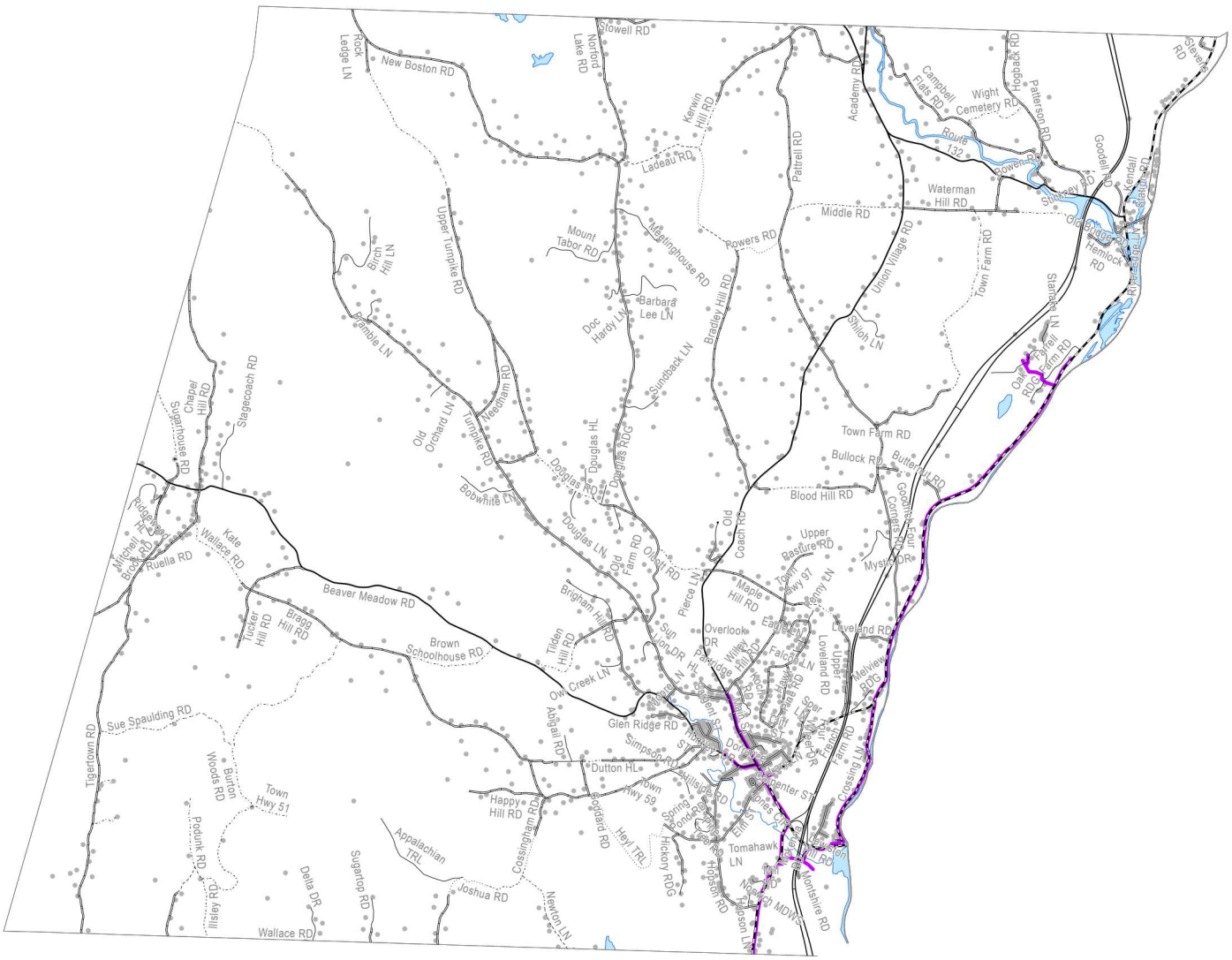

SOLAR KW		HYDRO KW		BIOMASS KW	
·	15 - 25	·	15 - 100	•	19
○	26 - 100	○	101 - 500	●	20 - 375
○	101 - 500	○	501 - 2000		
○	501 - 2200	○	2001 - 37400		

Structures w/1ac buffer
3 Phase Power Lines
Substations

0 0.5 1 2 Miles

N

Solar
This map shows areas of potential electricity generation from solar energy. It includes areas with good access to solar radiation and also considers other conditions that may limit the feasibility of solar energy development. These limiting factors are referred to as constraints. Areas of prime solar potential exist where the natural conditions make development feasible and no constraints are present.

These maps are designed to initially identify areas and follow-up on-site work is required to verify the areas are feasible for projects. They are subject to revision and are NOT intended to green-light or fast-track projects.

DARK GREEN Prime: No Constraints within 1 mile 3 phase power
MEDUIM GREEN Prime: No Constraints no known or possible constraints present
LIGHT GREEN Constraints no known but at least one or more possible constraints
LIGHT GOLD: Constraints Present

Solar Energy Potential

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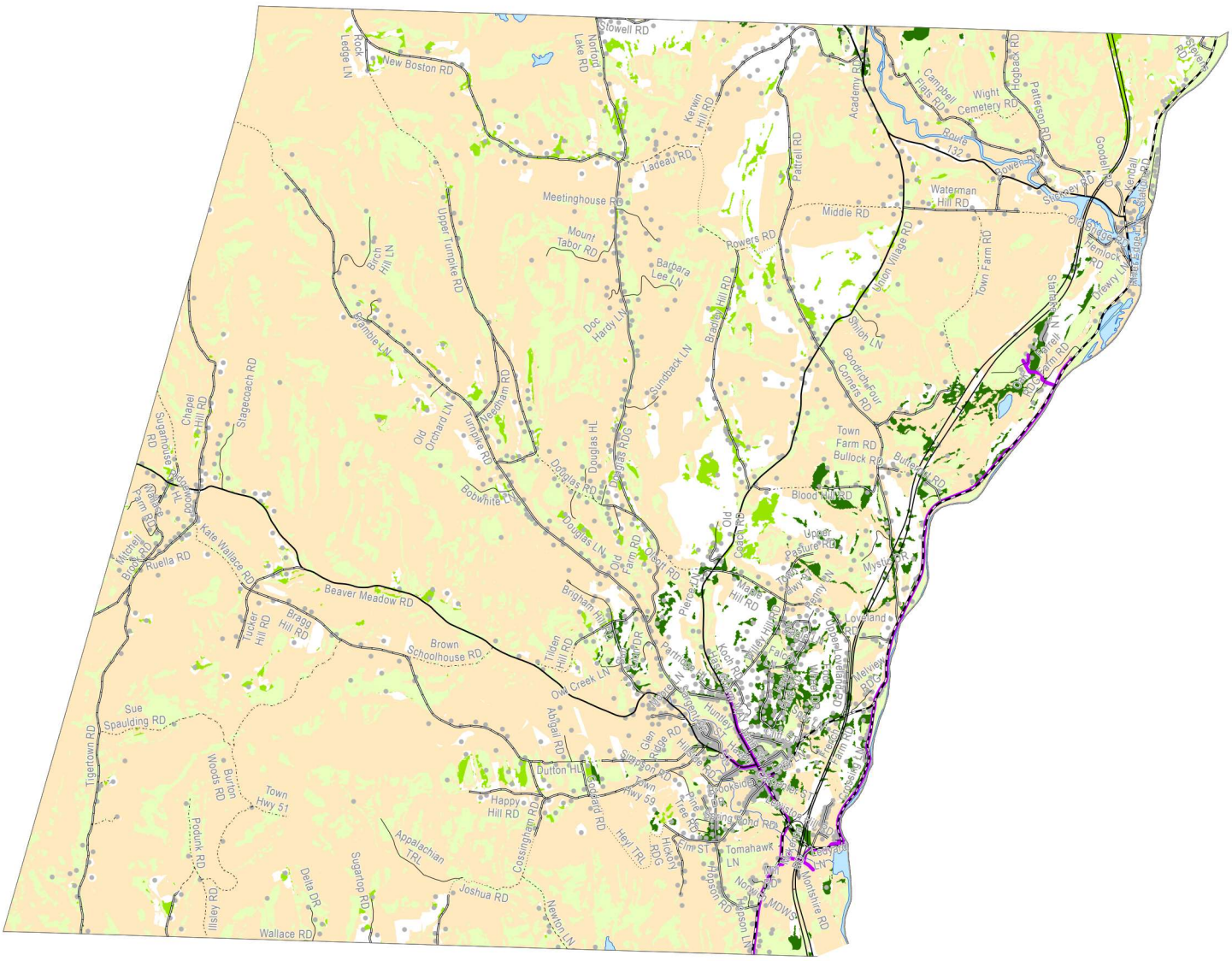

Substations
3 Phase Power Lines
Structures w/1ac buffer

Solar Potential
No Constraint 1m from 3phase
No Constraint
Possible Constraints

Constraints

N

0 0.5 1 2 Miles

Known Constraints
Vernal Pools (confirmed)
DEC River Corridors
FEMA Floodways
State-significant Natural Communities and Rare, Threatened, and Endangered Species
Wilderness Areas, including National Wilderness Areas
Class 1 and Class 2 Wetlands (VSWI and advisory layers)

Possible Constraints
Vernal Pools (unconfirmed)
Agricultural Soils (VT Agriculturally Important Soil Units)
FEMA Special Flood Hazard Areas
Protected Lands
Act 250 Agricultural Soil Mitigation areas
Deer Wintering Areas
Hydric Soils
VT Conservation Design Layers
Connectivity Forest Blocks - Highest Priority
Interior Forest Blocks - Highest Priority
Physical Land Division Forest Blocks - Highest Priority
Riparian Areas - Highest Priority
In 2024 Priority Interior Forest Block were added.

Wind
This map shows areas of potential electricity generation from wind energy. It includes areas with good access to wind and also considers other conditions that may limit the feasibility of wind energy development. These limiting factors are referred to as constraints. Areas of prime wind potential exist where the natural conditions make development feasible and no constraints are present.

These maps are designed to initially identify areas and follow-up on-site work is required to verify the areas are feasible for projects. They are subject to revision and are NOT intended to green-light or fast-track projects.

DARK GREEN Prime: No Constraints within 1 mile 3 phase power
MEDUIM GREEN Prime: No Constraints no known or possible constraints present
LIGHT GREEN Constraints no known but at least one or more possible constraints
LIGHT GOLD: Constraints Present

Wind Energy Potential

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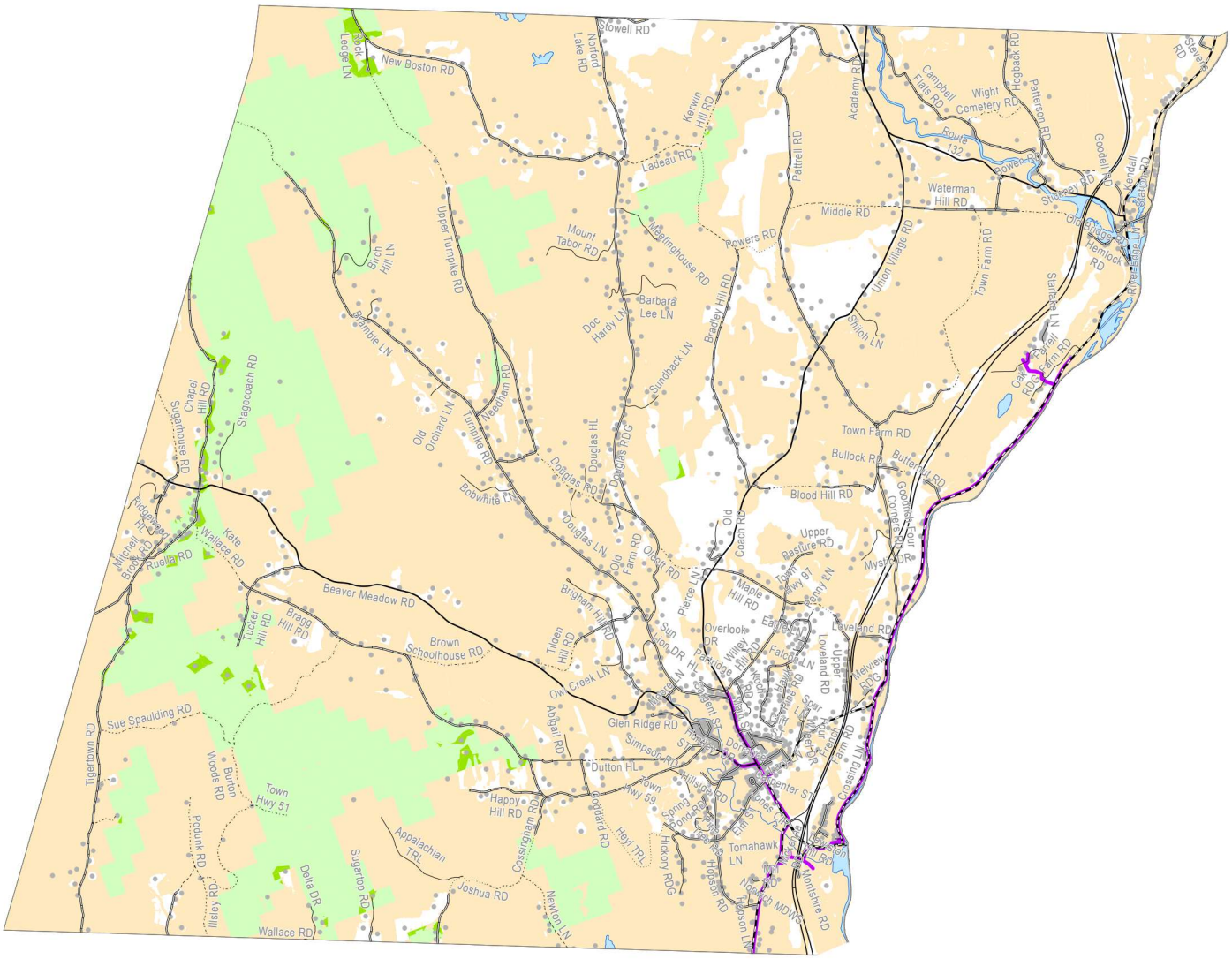

Substations
3 Phase Power Lines
Structures w/1ac buffer

Wind Potential
No Constraint 1m from 3phase
No Constraint
Possible Constraints

Constraints

N

0 0.5 1 2 Miles

Known Constraints
Vernal Pools (confirmed)
DEC River Corridors
FEMA Floodways
State-significant Natural Communities and Rare, Threatened, and Endangered Species
Wilderness Areas, including National Wilderness Areas
Class 1 and Class 2 Wetlands (VSWI and advisory layers)

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Connectivity Forest Blocks - Highest Priority
Interior Forest Blocks - Highest Priority
Physical Land Division Forest Blocks - Highest Priority
Riparian Areas - Highest Priority
In 2024 Priority Interior Forest Block were added.

Hydroelectric
Methodology: This map shows areas of resource potential for renewable energy generation from hydroelectric facilities. Sites identified are existing dams that could be developed for hydroelectric generation as well as active hydroelectric facilities. Information on existing hydroelectric facilities was obtained from the Vermont Dam Inventory and data on potential hydroelectric sites was obtained from a study conducted by Community Hydro in 2007.

HYDRO Energy Potential

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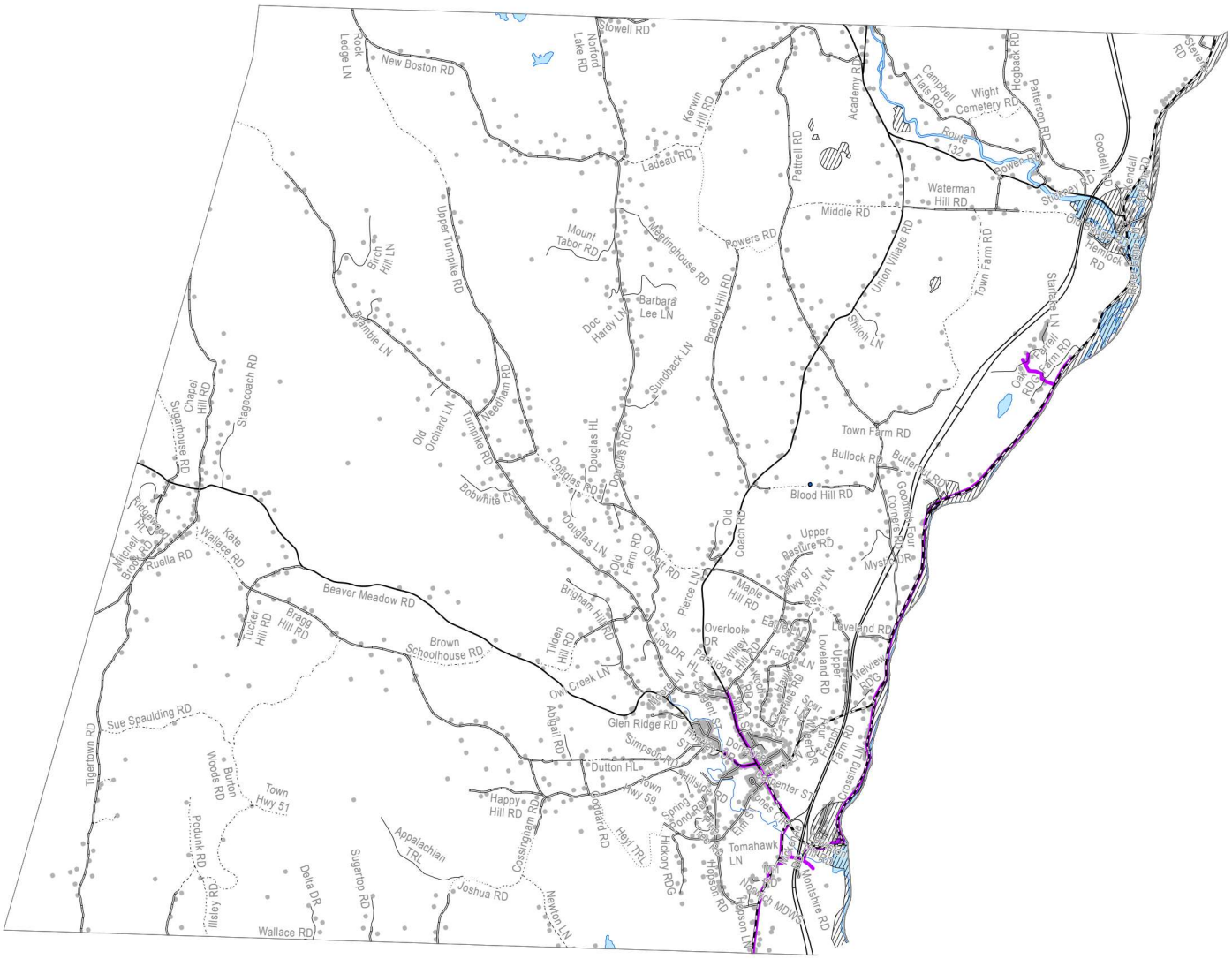

Operational Hydroelectric Facilities

Potential Hydroelectric Sites

- < 50 kW Capacity
- > 50 kW Capacity
- High Hazard with < 50 kW Capacity
- High Hazard with > 50 kW Capacity

Stressed Waters

Rare/Irreplaceable Natural Areas (RINAs)

Substations

3 Phase Power Lines

Structures w/1ac buffer

Hydroelectric Constraint Description
*** Rare and Irreplaceable Natural Areas (RINAs) are significant natural communities. They do not Include the following rank descriptions: uncommon to common breeder in VT, common to very common in VT, historic in VT, not applicable, unrankable, unrankable breeding population, and extirpated.**

0 0.5 1 2 Miles

N

Biomass
Methodology: This map shows areas of potential for woody biomass production and harvest. The map also illustrates other conditions that may limit the feasibility of extensive harvesting of wood for energy use. These limiting factors are referred to as constraints. The map does not show areas where other types of biomass, such as biomass from grasses or agricultural residue, could be grown/harvested.

BIOMASS Energy Potential

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Substations
3 Phase Power Lines
Structures w/1ac buffer
Woody BIOMASS

N

0 0.5 1 2 Miles

Section	Content
Goals/Objectives	A statutorily required section for all Town Plans that provides some high level descriptive statements about future conditions in the Town. Goals/objectives can be quantitative, but that is not required.
Policies	A statutorily required section for all Town Plans that provides guidance during Section 248 proceedings and implementable through Bylaws. Must include the following:
Recommendations/Actions	A statutorily required section for all Town Plans that assigns tasks to a specific organization in Town for implementation.
Introduction/Overview	An optional section outlining the content of the chapter. Could talk about Section 248 reviews of energy generation projects and the benefits of an enhanced energy plan (substantial deference over due consideration).
Town's Energy Use/Resources	A statutorily required section for all Town Plans that elaborates on current energy use data (Tables 4A and Table 9A) from the Town's Energy Planning Packet. Content must include all 3 sectors:
	a. Transportation
	i. Gasoline for Internal Combustion Engine (ICE) Vehicles
	ii. Electric Vehicles (EVs)
	b. Thermal Heating
	i. Heating Fuels (Propane, Oil, Kerosene, Butane, liquified petroleum gas)
	ii. Electricity (from utilities, heat pumps)
	iii. Biomass or wood
	c. Electricity (from utilities or on-site energy generation facilities)
	i. Solar (roof-mounted or ground-mounted)
	ii. Biomass
	iii. Geothermal
	iv. Hydropower
	v. Wind
Town's Energy Issues	A statutorily required section for all Town Plans that discusses the Town's energy:
	a. Needs - Overall energy consumption and by energy sector using data (Tables 4A) from the Town's Energy Planning Packet.
	b. Scarcities - Unlikely to note any over the 8-year lifespan of the Town Plan.
	c. Costs - Could compare general costs of EVs to ICE vehicles, cost savings on thermal energy from residential or commercial weatherization, cost savings on electricity from on-site renewable energy generation, etc. Should talk about energy burden on lower-income residents.
	d. Problems - Could talk about climate change and greenhouse gas (GHG) emissions from heating fuels, ICE vehicles, and nonrenewable energy generation. Could talk about the health effects from burning fossil fuels.
Town's Energy Targets	An optional section to highlight the Town's energy targets for 2025, 2035, and 2050 for all three energy sectors (Tables 4B, 4C, and 4D).
Conservation and Efficient Use of Energy Policy	An optional section to provide discussion on the conservation and energy efficiency policies that are required in an enhanced energy plan.
Energy and Transportation Policy	An optional section to provide discussion on the transportation policies that are required in an enhanced energy plan.
Energy and Land Use Policy	An optional section to provide discussion on the land use policies that are required in an enhanced energy plan.
Renewable Energy Generation, Storage, Transmission, and Distribution Siting Considerations	An optional section to discuss permitting under Section 248 and check off on many of the requirements under Question 9 of the Municipal Determination Standards.
	a. Evaluation of existing renewable energy generation
	Table 9A in the Town Energy Planning Packet
	b. Evaluation of potential renewable energy generation
	Table 9B in the Town Energy Planning Packet
	c. Evaluation of sufficient land for 2050 energy generation targets
	Table 9C in the Town Energy Planning Packet
	d. Evaluation of local constraints so as not to prohibit sufficient renewable energy generation to meet 2050 goal
	Plan should attest to this, but Table 9C in the town's energy planning packet only considers "prime" land for wind + solar generation and excludes forest blocks.
	e. Enumeration of preferred, potential, and unsuitable sites for new energy generation, transmission, distribution, and storage facilities
	f. Maximalization of renewable energy generation on preferred sites
	Plan must attest that any listed preferred site is not impractical for renewable energy generation.
	A section required for an enhanced energy plan that assesses the equity impacts of the policies and objectives proposed in the Town Plan's Energy Chapter. Should include discussion about:

Impact of Energy Policies on Equity	1. The communities will be most impacted by the policy or objective.
	2. The distribution of benefits and burdens related to specific actions, whether actions will address existing inequities
	3. Whether actions will address existing inequities.
	4. The extent to which communities were or will be consulted in the development of any programs or actions.
Town's Role in Energy Planning	An optional section discussing how the Town could show leadership in energy planning, including but not limited to:
	1. Adopting/Amending bylaws that require the applicant to show compliance with the Residential or Commercial Building Energy Standard before receiving a certificate of compliance.
	2. Adopting/Amending bylaws that require the applicant to show compliance with the Residential or Commercial Building Energy Standard stretch code.
	3. Auditing municipally-owned buildings' energy use.
	4. Weatherizing municipally-owned buildings.
	5. Implementing on-site renewable energy generation facilities at municipally-owned buildings.
	6. Creating a Property Assessed Clean Energy (PACE) district.
	7. Consider reducing the municipality's energy use when planning capital projects.
	8. Adopting an energy efficiency purchasing policy for municipally-owned vehicles and equipment.

Model Policies & Actions/Recommendations
1. Conservation and Energy Efficiency
2. Reduction of transportation energy demand
3. Patterns and densities of land use likely to result in conservation of energy
a. Enactment of land use policies and areas that reduce sprawl
Adopting bylaws and town plan policies that minimize strip development
Adopting bylaws and town plan policies that encourage clustered housing development
Adopting bylaws and town plan policies that minimize subdivision in forest blocks and areas with
b. Enactment of land use policies and areas in compact mixed-use centers
Attaining state designated village centers and downtowns
Attaining state designated Tier 1A and 1B areas
Adopting bylaws and town plan policies that minimize strip development and encourage
Adopting bylaws and town plan policies that encourage development in planned growth areas
Adopting town plan policies to encourage the development of municipal water and wastewater
Adopting bylaws or ordinances to require connection to municipal water and wastewater systems in
wastewater infrastructure, sidewalks, multiuse paths, and bike lanes/paths in village areas or
4. Development and siting of renewable energy resources
a. Siting policies for preferred, potential, and unsuitable areas
Preferred: Use state's preferred sites list:
New or existing structures
Parking lot canopy
Previously developed parcels
Brownfield sites
Fromer sanitary landfill
Disturbed portions of gravel pits/quarries/mineral extraction sites
Superfund sites or those listed on the National Priorities List
Preferred: Any other specific sites or land uses the town wished to designate as such
Potential: any areas where the town would want to minimize and mitigate adverse impacts from new
Historic districts, landmarks, sites and structures listed, or eligible for listing, on state or
Public parks and recreation areas, including municipal parks, forests and trail networks
Municipally designated scenic roads and viewsheds
Special flood hazard areas identified by National Flood Insurance Program maps (except as
River corridors (except as required for hydropower facilities) as designated by the Vermont
Forest blocks or habitat connectors as designated by the municipality or by the Vermont
Public and private drinking water supplies, including mapped source protection areas
Primary agricultural soils mapped by the U.S. Natural Resources Conservation Service
Necessary wildlife habitat identified by the state or through analysis, including core habitat
Significant natural communities identified by the identified by the Vermont Agency of Natural
Threatened or endangered species habitat or communities identified by the Vermont Agency
Potential: Any other land use areas or specific sites with features the town wishes to designate as
Unsuitable: areas where new energy generation facilities will be discouraged or prohibited. Could
Floodways identified by National Flood Insurance Program maps (except as required for

Wetlands as indicated on Vermont State Wetlands Inventory maps or identified through site
b. General conditions for siting energy generation, transmission, distribution, and storage facilities
Sufficient screening to limit visual impact
Maximum total capacity
Minimize site clearing
Minimize forest fragmentation
c. Specific conditions for siting energy generation, transmission, distribution, and storage facilities
Minimization and mitigation of adverse impacts to riverine ecosystems and water quality from
Biomass facilities must utilize appropriate air pollution control measures
d. Demonstration of municipal leadership in developing renewable energy
Participation in Public Utility Commission reviews of energy projects
Collaboration with electric service providers to create more resilient and hardened transmission
Enrollment in net metering
Implementation of renewable energy generation facilities at town-owned facilities

Municipal Determination Standards Plan Adoption Requirement Mapping Standards		
11	**Does your plan contain one or more maps that address 12-14 below, as provided by your Regional Planning Commission or as developed by your municipality?**	
12	**Does the plan identify and map existing electric generation sources?**	
13	**Does the plan identify potential areas for the development and siting of renewable energy resources and the potential generation from such generators in the identified areas, taking into account factors including resource availability, environmental constraints, and the location and capacity of electric grid infrastructure?**	A. Raw renewable energy potential analysis (wind and solar), using best B. Known constraints (signals likely, though not absolute, unsuitability for development based on statewide or local regulations or designated critical resources) to include: • Vernal Pools from Vermont Center for Ecostudies (VCE; confirmed layers) • DEC River Corridors • FEMA Floodways • State-significant Natural Communities • Rare, Threatened, and Endangered Species • National Wilderness Areas C. Possible 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), including but not limited to: • Vernal Pools from VCE (potential and probable layers) • Agricultural Soils • FEMA Special Flood Hazard Areas • Protected Lands (State fee lands and private conservation lands) • Act 250 Agricultural Soil Mitigation areas • Deer Wintering Areas • Hydric Soils • Regionally or Locally Identified Resources • The following features from ANR's Vermont Conservation Design: o Interior Forest Blocks – Highest Priority o Connectivity Blocks–- Highest Priority D. Transmission and distribution resources and constraints, as well as E. Preferred locations (specific areas or parcels) for siting a generator or a specific size or type of generator, accompanied by any specific siting criteria for these locations: i. Statewide preferred locations such as rooftops (and other structures), parking lots, previously developed sites, brownfields, gravel pits, quarries, and Superfund sites. F. Does the plan (a) evaluate whether forest blocks or habitat connectors identified pursuant to 24 V.S.A. § 4382(a)(2)(D) should be treated as possible constraints, and (b) ensure that land conservation
14	**Does the plan identify areas that are unsuitable for siting renewable energy resources or particular categories or sizes of those resources**?	A. Are areas identified as unsuitable for particular categories or sizes of generators consistent with resource availability and/or land use policies in the regional or municipal plan applicable to other types of B. Does the plan ensure that any regional or local constraints (regionally or locally designated resources or critical resources, from 13B-13C above) identified are supported through data or studies, are
15	**Does the plan ensure that its approach, if applied regionally, would not have the effect of prohibiting any type of renewable generation technology in all locations?**	

Norwich PC Solar Siting Subcommittee DRAFT
October 29, 2025 - Minutes

Subcommittee members present: Mary Gorman, Ernie Ciccotelli, Jaan Laaspere
Steven True, Norwich PD/ZA

Public attending: Linda Gray, Robert Gere

Meeting started at 6:32

1. **Approved Agenda -** unanimous

2. **Public comment**
   Mary Gorman notified the group that clear cutting for the Upper Loveland PV project had begun and urge members to visit the site.

3. **Enhanced Energy Plan project 10/27/25 document**
   Laaspere gave an overview of the document, which represent draft minutes for the discussion on the EEP in the 10/14/25 Planning Commission meeting outlining the roles and responsibilities of different groups, including the proposal to create a new temporary group.

   This subcommittee is chartered to focus on Standard 9 – Development and Siting of Renewable Energy Resources and mapping standards 10 – 13.

   We discussed the definition of renewables for the purposes of siting and whether this group should limit itself to PV sites or expand the scope to include all renewable generation. This would include wind and hydro, each of which could have different siting criteria from solar. The group agreed to include all renewable generation in our charter and will ask the Planning Commission to approve this change.

   It was thought the proposed schedule may be too aggressive, given the upcoming holiday season.

4. **Constraints Mapping initial review**
   We reviewed maps (in packet) of solar raw potential and starting drafts for possible constraints on this potential, including known constraints of wetlands, floodways and significant natural communities.

   The mapping tools will be extremely useful for visualizing the results of various policy decisions. True will create methods of combining and color-coding layers to optimize this tool.

   In subsequent meetings we will continue with the mapping exercise, closing in from both sides to identify preferred and prime areas along with unsuitable areas and those with known constraints. We can start by setting strong constraints and evaluate the

results relative to our renewable generation targets. True will get these targets from TRORC before the next meeting.

It is in the middle uncertain area of "possible constraints" where policies and process will be most necessary. To navigate this area while maintaining maximum influence given to the town's wishes in state processes we must create "clear, written community standards." It was suggested that these should start with high level principles and values stating the town's priorities on topics like wildlife, steep slopes, scenic resources, etc. which would then be cascaded down to more detailed siting guidelines.

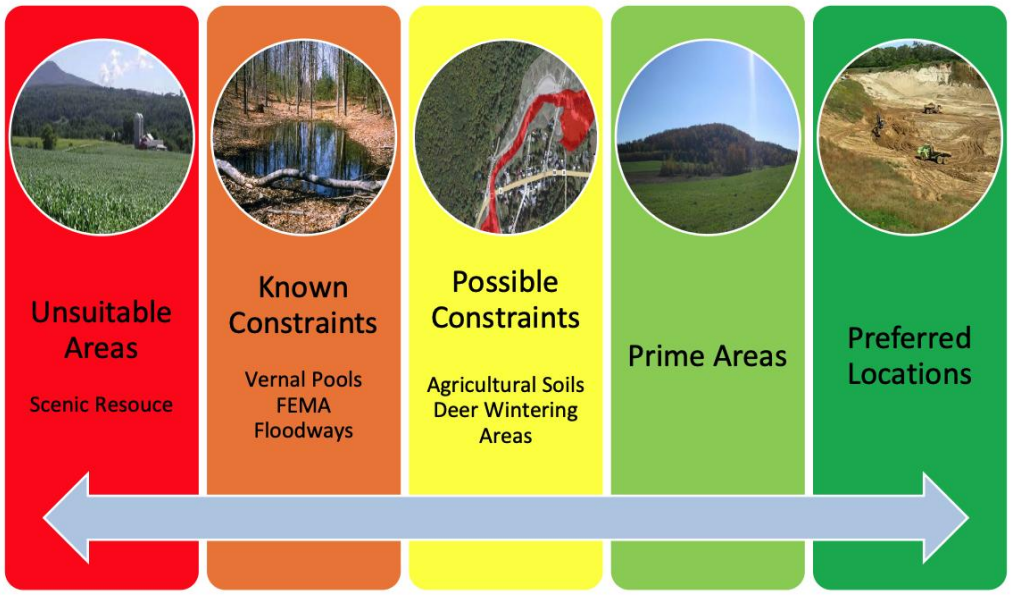

Figure 4: the Spectrum between Unsuitable Areas and Preferred Locations

True will continue mapping work for review at the next meeting, including adding a layer for electrical utility infrastucture.

5. **Approved minutes of September 16, 2025 -** Unanimous

Meeting adjourned at 8:04

Minutes submitted by Jaan Laaspere