Appendix C

Energy Planning Standards for Municipal Plans

Instructions

Before proceeding, please review the requirements of Parts I and II below, as well as the Overview document. Submitting a Municipal Plan for review under the standards below is entirely voluntary, as enabled under Act 174, the Energy Development Improvement Act of 2016. If a Municipal Plan meets the standards, it will be given an affirmative "determination of energy compliance," and its land conservation measures and specific policies will be given "substantial deference" in the Public Utility Commission's review of whether an energy project meets the orderly development criterion in the Section 248 process. Specifically, with respect to an in-state electric generation facility, the Commission:

> *[S]hall give substantial deference to the land conservation measures and specific policies contained in a duly adopted regional and municipal plan that has received an affirmative determination of energy compliance under 24 V.S.A. § 4352. In this subdivision (C), "substantial deference" means that a land conservation measure or specific policy shall be applied in accordance with its terms unless there is a clear and convincing demonstration that other factors affecting the general good of the State outweigh the application of the measure or policy. The term shall not include consideration of whether the determination of energy compliance should or should not have been affirmative under 24 V.S.A. § 4352.*

Municipal Plans should be submitted by the municipality's legislative body to the Regional Planning Commission (RPC) if the Regional Plan has received an affirmative determination of energy compliance (determination), along with the completed checklist below. After a Municipal Plan and completed checklist have been submitted to the RPC, the RPC will schedule a public hearing noticed at least 15 days in advance by direct mail to the requesting municipal legislative body, on the RPC website, and in a newspaper of general publication in the municipality. The RPC shall issue a determination in writing within two months of the receipt of a request. If the determination is negative, the RPC shall state the reasons for the denial in writing and, if appropriate, suggest acceptable modifications. Submissions for a new determination following a negative determination shall receive a new determination within 45 days.

The plans that Municipalities submit must:

- Be adopted
- Be confirmed under 24 V.S.A. § 4350
- Include an energy element that has the same components as described in 24 V.S.A. § 4348a(a)(3)
- Be consistent with state energy policy (described below), in the manner described in 24 V.S.A. § 4302(f)(1)
- Meet all standards for issuing a determination of energy compliance (see below)

Municipalities are encouraged to consult with their RPC before undertaking the process of plan adoption, which may help in identifying any deficiencies or inconsistencies with the standards or other requirements that would be more difficult to remedy after a plan has gone through the formal adoption process.

The 2022 Comprehensive Energy Plan (CEP), published on January 14, 2022, includes several important updates to the Act 174 enhanced energy standards:

- A revised set of standards, presented in this document, updated to reflect current developments in state energy policy
- An updated suite of recommendations tailored specifically toward the work of the regions and municipalities. Unlike the set of recommendations published with the original standards, which were written prior to the passage of Act 174, these recommendations are included in the 2022 CEP itself.

In addition, a revised guidance document will be published within six months after the publication of the 2022 CEP to reflect new issues and best practices that have emerged from the regions and municipalities that have gone through an initial process of applying for a determination of energy compliance. This document will also include the recommendations for regions and municipalities outlined in the 2022 CEP.

Affirmative determinations are valid for the life cycle of a revision of the Municipal Plan. Plans submitted after the 2022 CEP is issued are expected to meet the updated standards that are issued at that time, with the exception of plans for regions or municipalities who can demonstrate they had meaningfully initiated the planning process (ex. through proof of a publicly noticed meeting) before the 2022 CEP was published. Municipalities are encouraged to consult with their RPC regarding interim amendments that might affect any of the standards below, to discuss whether a new review is triggered.

If you wish to submit your Municipal Plan to your RPC for a determination, please read closely the specific instructions at the start of each section below, and attach your Municipal Plan to this checklist.

Determination requests to an RPC (and any other questions) should be submitted to your RPC's designated contact.

Part I: Applicant Information

Applicant:	Click here to enter text.
Contact person:	Click here to enter text.
Contact information:	Click here to enter text.

Received by: Click here to enter text.	**Date:** Click here to enter text.

Part II: Determination Standards Checklist

The checklist below will be used to evaluate your plan's consistency with statutory requirements under Act 174, including the requirement to be adopted, contain an enhanced energy element, be consistent with state energy policy, and meet a set of standards designed to ensure consistency with state energy goals and policies.

Please review and attach your plan (or adopted energy element/plan, along with supporting documentation) and self-evaluate whether it contains the following components. Use the Notes column to briefly describe how your plan is consistent with the standard, including relevant page references (you may include additional pages to expand upon Notes). If you feel a standard is not relevant or attainable, please check N/A where it is available and use the Notes column to describe the situation, explaining why the standard is not relevant or attainable, and indicate what measures your municipality is taking instead to mitigate any adverse effects of not making substantial progress toward this standard. If N/A is not made available, the standard must be met (unless the instructions for that standard indicate otherwise) and checked "Yes" in order to receive an affirmative determination. There is no penalty for checking (or limit on the number of times you may check) N/A where it is available, as long as a reasonable justification is provided in the Notes column.

Plan Adoption Requirement

Act 174 requires that municipal plans be adopted and approved in order to qualify for a determination of energy compliance. In the near term, it is likely municipalities will revise and submit isolated energy plans or elements, particularly due to long planning cycles. Therefore, the plan adoption requirement can be met through an amendment to an existing plan in the form of an energy element or energy plan, as long as the amendment or plan itself is duly adopted as part of the municipal plan and incorporated by reference or appended to the underlying, full plan (i.e., is officially "in" the municipal plan), as well as approved for confirmation with the region. If this route is chosen, the municipality should also attach the planning commission report required for plan amendments under 24 V.S.A. § 4384, which should address the internal consistency of the energy plan/element with other related elements of the underlying plan (particularly Transportation and Land Use), and/or whether the energy plan/element supersedes language in those other elements. Standards 1 and 2 below must be answered in the affirmative in order for a plan to receive an affirmative determination of energy compliance.

1. Has your plan been duly adopted and approved for confirmation according to 24 V.S.A. § 4350?	☐ Yes. Adoption date: Click here to enter text.	☐ No	Click here to enter text.

	Confirmation date: Click here to enter text.		
2. Is a copy of the plan (or adopted energy element/plan, along with underlying plan and planning commission report addressing consistency of energy element/plan with other elements of underlying plan) attached to this checklist?	☐ Yes	☐ No	Notes: Click here to enter text.

Energy Element Requirement

To obtain a determination of energy compliance, Act 174 requires municipalities to include an "energy element" that contains the same components described in 24 V.S.A. § 4348a(a)(3), which was revised through Act 174 to explicitly address energy across all sectors and to identify potential and unsuitable areas for siting renewable energy resources:

> *An energy element, which may include an analysis of resources, needs, scarcities, costs, and problems within the region across all energy sectors, including electric, thermal, and transportation; a statement of policy on the conservation and efficient use of energy and the development and siting of renewable energy resources; a statement of policy on patterns and densities of land use likely to result in conservation of energy; and an identification of potential areas for the development and siting of renewable energy resources and areas that are unsuitable for siting those resources or particular categories or sizes of those resources.*

The standards below are generally organized to integrate each component of the enhanced energy element with related determination standards that evaluate the plan's consistency with state goals and policies. **Energy element components are identified in bolded text.**

While municipalities may choose to primarily address energy used for heating, transportation, and electricity in the required energy element, they may also choose to address some of these components in related plan elements (e.g., Transportation and Land Use) and should indicate as much in the Notes column. To the extent an energy element is designed to comprehensively address energy, it should be complementary to and reference other relevant plan elements.

3. **Does the plan contain an energy element, that contains the same components described in 24 V.S.A. § 4348a(a)(3)?**	☐ Yes	☐ No	Page: Click here to enter text. Notes: Click here to enter text.

Individual components of the energy element will be evaluated through the standards below.			

Consistency with State Goals and Policies Requirement

Act 174 states that regional and municipal plans must be consistent with the following state goals and policies:

- Greenhouse gas reduction requirements under 10 V.S.A. § 578(a) (26% from 2005 levels by 2025; 40% from 1990 levels by 2030; 80% from 1990 levels by 2050)
- The 25 x 25 goal for renewable energy under 10 V.S.A. § 580 (25% in-state renewables supply for all energy uses by 2025)
- Building efficiency goals under 10 V.S.A. § 581 (e.g., reduce fossil fuel consumption across all buildings by 10% by 2025)
- State energy policy under 30 V.S.A. § 202a and the recommendations for regional and municipal planning pertaining to the efficient use of energy and the siting and development of renewable energy resources contained in the State energy plans adopted pursuant to 30 V.S.A. §§ 202 and 202b
- The distributed renewable generation and energy transformation categories of resources to meet the requirements of the Renewable Energy Standard under 30 V.S.A. §§ 8004 and 8005

The standards in the checklist below will be used to determine whether a plan is consistent with these goals and policies. The standards are broken out by category. *Analysis and Targets* standards address how energy analyses are done within plans, and whether targets are established for energy conservation, efficiency, fuel switching, and use of renewable energy across sectors. *Pathways (Implementation Actions)* standards address the identification of actions to achieve the targets. *Mapping* standards address the identification of suitable and unsuitable areas for the development of renewable energy.

Municipalities may choose to incorporate the information necessary to meet the standards in their energy elements, and/or in other sections of their plans (many transportation items may fit best in the Transportation chapters of plans, for instance). However, plans must be internally consistent, and applicants should cross-reference wherever possible.

Analysis and Targets Standards

For the *Analysis & Targets* determination standards below, municipalities will be provided with analyses and targets derived from regional analyses and targets by their RPC. Municipalities may choose to rely on these "municipalized" analyses and targets to meet the standards in this section. Municipalities which elect to use the analysis and targets provided by a region will be presumed to have met the standards in this section**.** Alternatively, municipalities may develop their own custom analyses and targets or supplement the analyses and targets provided by

the regions with specific local data; if this option is chosen, the analysis and targets must include all of the same components and meet the standards required of regions, as described below.

For municipalities that choose to undertake their own analysis and target-setting (and for regions), the Department of Public Service (PSD) has provided guidance documents to explain the expected level of detail in and data sources and methodologies available for meeting the standards (including areas where it is understood data at the municipal level is unavailable, and therefore not expected). These guidance documents can be retrieved from the following links:

- In 2017, the PSD developed two guidance documents, one for regional plans and one for municipal plans:
  - Guidance for Regional Plans
  - Guidance for Municipal Plans
- In addition, in 2019 the Northwest Regional Planning Commission, with input from all 11 RPCs in the state, created a best practices and resources guide for municipalities to use when undertaking enhanced energy planning.

The guidance developed by the PSD will be updated in 2022 to incorporate best practices that have emerged from the regions and municipalities who have completed an initial round of energy plans. Note that standards 5A-5E are all derived directly from requirements in Act 174 (with minor modifications to make them feasible) and must be met affirmatively in order for a municipal plan to receive an affirmative determination of energy compliance.

Targets set by regions and municipalities should be aligned with state energy policy (see the goals and policies listed above). Where targets (and efforts to reach them) depart significantly from state energy goals and policies, an explanation for how the plan otherwise achieves the intent of the state goal or policy should be provided. The guidance document also offers additional clarification on alignment with state goals and policies.

The analysis items below are intended to provide regions and municipalities with an overview of their current energy use, and with a sense of the trajectories and pace of change needed to meet targets, which can be translated into concrete actions in the *Pathways* standards below. Targets provide regions and municipalities with milestones or checkpoints along the way toward a path of meeting 90% of their total energy needs with renewable energy, and can be compared with the potential renewable energy generation from areas identified as potentially suitable in the *Mapping* standards exercise below to give regions and municipalities a sense of their ability to accommodate renewable energy that would meet their needs.

4. **Does your plan's energy element contain an analysis of resources, needs, scarcities, costs, and problems within the municipality across all energy sectors (electric, thermal, transportation)?** *Note: You may want to reference the guidance document, developed by Northwest Regional Planning Commission, with input from all 11 regional planning commissions, on best practices for conducting such an analysis, including examples and suggested units to use when developing analyses.*	☐ Yes	☐ No	Page: Click here to enter text. Notes: Click here to enter text.
5. Does your plan contain an analysis that addresses A-E below, either as provided by your Regional Planning Commission or as developed by your municipality? *Municipalities may meet this standard by using the analysis and targets provided by their regions, or by developing their own analyses and targets. If using the analysis & targets provided by your region, please answer "Yes-Region" and skip ahead to #6. If developing a custom analysis, please answer "Yes-Custom" and address 5A-5E separately, below.*	☐ Yes-Region ☐ Yes-Custom	☐ No	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.
A. Does the plan estimate current energy use across transportation, heating, and electric sectors? *As noted in the Guidance Document, plans meet this standard by transparently calculating estimated energy consumption by region by 1) transportation, 2) building heat, and 3) electricity consumption. More detailed support is available in Appendix A of the Guidance developed by the PSD.*	☐ Yes	☐ No	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.
B. Does the plan establish targets for 2025, 2035, and 2050 for thermal efficiency improvements and use of renewable energy for heating and evaluate the amount of thermal-sector conservation, efficiency, and conversion to alternative heating fuels needed to achieve these targets?	☐ Yes	☐ No	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.
C. Does the plan establish targets for 2025, 2035, and 2050 for use of renewable energy for transportation and evaluate transportation system changes and land use strategies needed to achieve these targets?	☐ Yes	☐ No	Page: Click here to enter text. Paragraph #: Click here to enter text.

			Notes: Click here to enter text.
D. Does the plan establish 2025, 2035, and 2050 targets for electric efficiency improvements and use and renewable energy for electricity and evaluate electric-sector conservation and efficiency needed to achieve these targets?	☐ Yes	☐ No	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.

Pathways (Implementation Actions) Standards

This section examines whether plans meet the Act 174 expectation that they include pathways and recommended actions to achieve the targets identified through the *Analysis and Targets* section of the Standards (above). Plans are expected to include or otherwise address all of the pathways (implementation actions) below; some actions may not be applicable or equally relevant to all applicants (small vs. large municipalities, for instance), in which case N/A may be checked (if available) and the justification provided in the Notes column. There is no penalty for choosing N/A one or more times, as long as a reasonable justification is provided in the Notes column, preferably including an explanation of how the plan alternatively achieves attainment of the targets should be included. If N/A is not provided as an option, the standard must be met, and "Yes" must be checked, in order for the plan to meet the requirements for a determination (unless the instructions particular to that standard indicate otherwise).

The PSD will be updating its guidance documents in 2022 with potential implementation actions included in the 2022 Comprehensive Energy Plan, from existing regional and municipal plans that have received a determination of compliance, and from other sources. We also offer potential starting points for consideration as italicized text under each standard. Plans are encouraged to promote as diverse a portfolio of approaches as possible in each sector, or if not, to explain why they take a more targeted approach. Implementation actions may fit best in a holistic discussion contained within a plan's energy element, though cross-referencing to other relevant plan elements is also acceptable.

Municipalities must demonstrate a commitment to achieving each standard in policies, objectives, and implementation actions in clear, action-oriented language. Definitions of policies, objectives, and actions can be found on p. 52 of the Vermont State Planning Manual Module 1.

6. **Does your plan's energy element contain policies or objectives on the conservation and efficient use of energy?**	☐ Yes	☐ No	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.

A. Does the plan encourage conservation by individuals and organizations? *(Actions, objectives, and policies could include educational activities and events such as convening or sponsoring weatherization workshops, establishing local energy committees, encouraging the use of existing utility and other efficiency and conservation programs and funding sources, etc.)*	☐ Yes	☐ No	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.
B. Does the plan promote efficient and climate resilient buildings? *(Actions, objectives, and policies could include education on and promotion of compliance with residential and commercial building energy standards for new construction and existing buildings, including additions, alterations, renovations and repairs; promoting the implementation of residential and commercial building efficiency ratings and labeling; considering adoption of stretch codes, identification of buildings and facilities that serve critical community functions, etc.)*	☐ Yes	☐ No	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.
C. Does the plan promote decreased use of fossil fuels for heating? *(Actions, objectives, and policies could promote switching to wood, liquid biofuels, biogas, geothermal, and/or electricity (e.g. beneficial electrification). Suitable devices include advanced wood heating systems and cold-climate heat pumps, as well as use of more energy efficient heating systems; and identifying potential locations for, and barriers to, deployment of biomass district heating and/or thermal-led combined heat and power systems in the municipality)*	☐ Yes	☐ No	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.
D. Does the plan demonstrate the municipality's leadership by example with respect to the efficiency of municipal buildings? (*Actions could include building audits and weatherization projects in schools and town offices, etc.)*	☐ Yes	☐ No ☐ N/A	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.
E. Other (please use the notes section to describe additional approaches that your municipality is taking)	☐ Yes	☐ No ☐ N/A	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.

7. Does your plan's energy element contain policies and objectives on reducing transportation energy demand and single-occupancy vehicle use, and encouraging use of renewable or lower-emission energy sources for transportation?	☐ Yes	☐ No	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.
A. Does the plan promote a shift away from single-occupancy vehicle trips, through strategies appropriate to the municipality? *(Actions, objectives, or policies could include rideshare, vanpool, car-sharing initiatives; participation in efforts to identify and develop new public transit routes, promote full utilization of existing routes, integrate park-and-rides with transit routes, efforts to develop or increase park-and-rides; enhancement of options such as rail and telecommuting; deployment of broadband to support remote services such as telework or telemedicine; education; intergovernmental cooperation; etc.)*	☐ Yes	☐ No	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.
B. Does the plan promote a shift away from gas/diesel vehicles to electric or other non-fossil fuel transportation options through strategies appropriate to the municipality? *(Actions, objectives, or policies could include developing a plan for preferred siting of charging infrastructure (ex. placement of fast or level two chargers), installing or promoting the installation of electric vehicle charging infrastructure, providing education and outreach to potential users, supporting non-fossil fuel vehicle availability through outreach to vehicle dealers, etc.)*	☐ Yes	☐ No	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.
C. Does the plan facilitate the development of walking and biking infrastructure through strategies appropriate to the municipality? *(Actions, objectives, or policies could include studying, planning for, seeking funding for, or implementing improvements that encourage safe and convenient walking and biking; adopting a "Complete Streets" policy, etc.)*	☐ Yes	☐ No ☐ N/A	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.
D. Does the plan demonstrate the municipality's leadership by example with respect to the efficiency of municipal transportation?	☐ Yes	☐ No ☐ N/A	Page: Click here to enter text. Paragraph #: Click here to enter text.

(*Actions, objectives, or policies could include purchasing energy efficient municipal and fleet vehicles when practicable, installing electric vehicle charging infrastructure, etc.)*			Notes: Click here to enter text.
E. Other (please use the notes section to describe additional approaches that your municipality is taking)	☐ Yes	☐ No ☐ N/A	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.
8. **Does your plan's energy element contain policies and objectives on patterns and densities of land use likely to result in conservation of energy and climate resilience?**	☐ Yes	☐ No	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.
A. Does the plan include land use policies (and descriptions of current and future land use categories) that demonstrate a commitment to reducing sprawl and minimizing low-density development? *(Actions, objectives, or policies could include promoting wastewater infrastructure in planned growth areas, policies or zoning that require design features that minimize the characteristics of strip development [multiple stories, parking lot to the side or back of the store], and requirements that development in those areas be connected by means other than roads and cars; policies or zoning that limits conversion and fragmentation of forest blocks and impacts to primary agricultural soils, adopting a capital budget and program that furthers land use and transportation policies; etc.*)	☐ Yes	☐ No	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.
B. Does the plan strongly prioritize development in compact, mixed-use centers when physically feasible and appropriate to the use of the development, or identify steps to make such compact development more feasible? *(Actions, objectives, or policies could include participating in the state designation program, such as obtaining state designated village centers, downtowns, neighborhoods, new town centers, or growth centers; exploration of water or sewage solutions that enable compact development; working with state agencies and local utilities to identify priority areas for EV charging, storage, and*	☐ Yes	☐ No ☐ N/A	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.

other resources to promote downtown economic and every resilience, etc.)			
C. Other (please use the notes section to describe additional approaches that your municipality is taking)	☐ Yes	☐ No ☐ N/A	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.
9. **Does your plan's energy element contain policies and objectives on the development and siting of renewable energy, storage, and transmission and distribution resources?**	☐ Yes	☐ No	Notes: Click here to enter text.
A. Does the plan evaluate (estimates of or actual) generation from existing renewable energy generation in the municipality? *Municipalities should be able to obtain this information from their regions.*	☐ Yes	☐ No	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.
B. Does the plan analyze generation potential, through the mapping exercise (see *Mapping* standards, below), from potentially suitable areas in the municipality? *Municipalities should be able to obtain this information from their regions.*	☐ Yes	☐ No	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.
C. Does the plan identify sufficient land in the municipality for renewable energy development to reasonably reach 2050 targets for renewable electric generation, based on population and energy resource potential (from potential resources identified in the *Mapping* exercise, below), accounting for the fact that land may not be available due to private property constraints, site-specific constraints, or grid-related constraints? *If N/A, please describe how you are working with your regional planning commission to ensure overall regional objectives are achieved.*	☐ Yes	☐ No ☐ N/A	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.
D. Does the plan ensure that any local constraints (locally designated resources or critical resources, from 13B and 13C under *Mapping*, below) do not prohibit or have the effect of prohibiting the	☐ Yes	☐ No ☐ N/A	Page: Click here to enter text. Paragraph #: Click here to enter text.

provision of sufficient renewable energy to meet state, regional, or municipal targets? *If N/A, please describe how you are working with your regional planning commission to ensure overall regional objectives are achieved.*			Notes: Click here to enter text.
E. Does the plan include policies and objectives to accompany maps (could include general siting guidelines), including policies and objectives to accompany any preferred, potential, and unsuitable areas for siting generation (see 13 and 14 under *Mapping*, below)?	☐ Yes	☐ No	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.
F. Does the plan maximize the potential for renewable generation on preferred locations (such as the categories outlined under 13E in the *Mapping* standards, below)?	☐ Yes	☐ No ☐ N/A	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.
G. Does the plan demonstrate the municipality's leadership by example with respect to the deployment of renewable energy? (*Actions could include deploying renewable energy to offset municipal electric use, etc.)*	☐ Yes	☐ No ☐ N/A	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.
H. Other (please use the notes section to describe additional approaches that your municipality is taking)	☐ Yes	☐ No ☐ N/A	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.
10. Does your plan's energy element assess the potential equity impacts of the policies and objectives included to meet standards 6-9? *Such an assessment could consider, for example, what communities will be most impacted by the policy or objective, the distribution of benefits and burdens related to specific actions, whether actions will address existing inequities, or the extent to which communities were or will be consulted in the development of any programs or actions.*	☐ Yes	☐ No ☐ N/A	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.

Mapping Standards

Act 174 requires plans to identify potential areas for the development and siting of renewable energy, storage, transmission, and distribution resources and areas that are unsuitable for siting those resources or particular categories or sizes of those resources. It furthermore requires that the standards address the potential generation from the potential siting areas. Lastly, it requires that – in order to receive an affirmative determination – municipal plans allow for the siting in the region of all types of renewable generation technologies.

The *Mapping* standards lay out a sequence of steps for planners to examine existing renewable resources and to identify potential (and preferred) areas for renewable energy development, and to identify likely unsuitable areas for development, by layering constraint map layers on to raw energy resource potential map layers. The maps should help municipalities visualize and calculate the potential generation from potential areas, and compare it with the 2025, 2035, and 2050 targets from the *Analysis and Targets* standards to get a sense of the scale and scope of generation that could be produced within the municipality to meet the municipality's needs. The PSD will provide additional guidance to accompany the standards that fleshes out the steps, layers, and standards more fully.

Plans must include maps that address all of the standards below, unless N/A is provided as an option, in which case a compelling reason why the standard is not applicable or relevant should be provided in the Notes column. Regions must develop their own maps and to then break out the maps for their municipalities, who can use their region-provided maps to meet the municipal *Mapping* standards.

Municipalities may choose to rely on the maps provided by the regions to meet the standards in this section. Those maps should be somewhat familiar to municipalities, who are expected to be consulted as regions develop their maps. Alternatively, municipalities may choose to undertake their own mapping, according to the same set of standards as regions. Additionally, municipalities are expected to work collaboratively with their regions and with neighboring municipalities to ensure compatibility between the final products.

The map and the text describing the policies or rules used to construct the map, as well as the text describing specific policies applicable to map features, should be complementary. That should help ensure that any "land conservation measures and specific policies" that might be given substantial deference in the context of a particular project review under 30 V.S.A. § 248 are clearly identifiable in the text, should a map lack sufficient clarity or granularity regarding the area in which a project is proposed. Policy language must be clear, unqualified, and create no ambiguity in relation to the specific area and the type of permissible development.

Consistent with the Climate Action Plan and Act 171 of 2016, the 2022 update to the Act 174 standards adds standard 12F to emphasize the value of forest lands in sequestering and storing carbon. By the 2028 update to the standards, the Department expects to incorporate Vermont Conservation Design priority interior forest and connectivity blocks into the possible constraints in standard 12C.

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?	☐ Yes-Region	☐ No	Page: Click here to enter text. Paragraph #: Click here to enter text.

Municipalities may meet this standard by using the maps provided by their regions, or by developing their own maps. If using the maps provided by your region, please answer "Yes-Region" and skip ahead to #15. If developing custom maps, please answer "Yes-Custom" and address 12-14 separately, below.	☐ Yes-Custom		Notes: Click here to enter text.
12. Does the plan identify and map existing electric generation sources? *Maps may depict generators of all sizes or just those larger than 15 kW, as long as information on generators smaller than 15 kW is summarized and provided or referenced elsewhere. It is expected that the best available information at the time of plan creation will be used. This information is available from the PSD.*	☐ Yes	☐ No ☐ N/A	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.
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? *Maps should include the following (available from VCGI and ANR), and the resulting Prime and Secondary Resource Maps will together comprise "potential areas"*:	☐ Yes	☐ No	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.
A. Raw renewable energy potential analysis (wind and solar), using best available data layers (including LiDAR as appropriate)	☐ Yes	☐ No	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.
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	☐ Yes	☒ No	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.

• Rare, Threatened, and Endangered Species • National Wilderness Areas • Class 1 and Class 2 Wetlands (VSWI and advisory layers) • Regionally or Locally Identified Critical Resources *If areas are constrained for the development of renewable energy due to the desire to protect a locally designated critical resource (whether a natural resource or a community-identified resource), then the land use policies applicable to other forms of development in this area must be similarly restrictive; for this category, policies must prohibit all permanent development (and should be listed in the Notes column).* *These areas should be subtracted from raw renewable energy resource potential maps to form Secondary Resource Maps*			

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
• The following features from ANR's Vermont Conservation Design:
  ○ Interior Forest Blocks – Highest Priority
  ○ Connectivity Blocks–- Highest Priority
  ○ Physical Landscape Blocks - Highest Priority
  ○ Surface Water and Riparian Areas - Highest Priority
• Hydric Soils
	☐ Yes	☐ No	Page: Click here to enter text.
			Paragraph #: Click here to enter text.
			Notes: Click here to enter text.

• Regionally or Locally Identified Resources *If locations are constrained for the development of renewable energy due to the desire to protect a locally designated resource (whether a natural resource or community-identified resource, like a viewshed), then the land use policies applicable to other forms of development must be similarly restrictive (and should be listed in the Notes column).* *These areas should be subtracted from Secondary Resource Maps to form Prime Resource Maps.*			
D. Transmission and distribution resources and constraints, as well as transportation infrastructure. *(Including three-phase distribution lines, known constraints from resources such as Green Mountain Power's solar map, known areas of high electric load, etc.)*	☐ Yes	☐ No	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.
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 *Narrative descriptions of the types of preferred areas in accompanying plan text are acceptable, though mapping of areas and especially specific parcels (to the extent they are known) is highly encouraged, to signal preferences to developers, particularly for locally preferred areas and specific parcels that do not qualify as a statewide preferred location under i. below.* *The locations identified as preferred must not be impractical for developing a technology with regard to the presence of the renewable resource and access to transmission/distribution infrastructure.*	☐ Yes	☐ No ☐ N/A	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.
i. Statewide preferred locations such as rooftops (and other structures), parking lots, previously developed sites, brownfields, gravel pits, quarries, and Superfund sites.	☐ Yes	☐ No ☐ N/A	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.

Note: These preferred locations align with the locations identified in the net metering rule 5.100. As of January 15, 2022 that rulemaking is currently active. Should the preferred locations identified in the rule change during that rulemaking, plans would be required to consider the updated preferred locations identified.			
ii. Other potential locally preferred locations *For example, customer on- or near-site generation, economic development areas, unranked and not currently farmed agricultural soils, unused land near already developed infrastructure, locations suitable for large-scale biomass district heat or thermal-led cogeneration, potential locations for biogas heating and digesters, etc.* *These are particularly important to map if possible, as "a specific location in a duly adopted municipal plan" is one way for a net metering project to qualify as being on a preferred site.*	☐ Yes	☐ No ☐ N/A	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.
F. Does the plan (a) evaluate whether forest blocks or habitat connectors identified pursuant to 24 V.S.A. § 4348a(a)(2)(F) [for regional plans] and 24 V.S.A. § 4382(a)(2)(D) [for municipal plans] should be treated as possible constraints, and (b) ensure that land conservation measures and specific policies established for the development and siting of renewable energy resources incorporates consideration of the evaluation undertaken in part (a)?	☐ Yes	☐ No	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.
14. **Does the plan identify areas that are unsuitable for siting renewable energy resources or particular categories or sizes of those resources**? *Either Yes or No ("No" if the plan chooses not to designate any areas as unsuitable) is an acceptable answer here. "Resources" is synonymous with "generators."*	☐ Yes ("Yes" for A and B must also be selected below)	☐ No	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.

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 land development (answer only required if "Yes" selected above, indicating unsuitable areas have been identified)? *If areas are considered unsuitable for energy generation, then the land use policies applicable to other forms of development in this area should similarly prohibit other types of development. Please note these policies in the Notes column.*	☐ Yes	☐ No ☐ N/A (if no unsuitable areas are identified)	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.
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 consistent with the remainder of the plan, and do not include an arbitrary prohibition or interference with the intended function of any particular renewable resource size or type? *Please explain in the Notes column.*	☐ Yes	☐ No	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.
15. Municipalities seeking a determination of energy compliance from the Department and not using their region's maps only: 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?	☐ Yes (also check Yes if seeking determination from region, or from DPS but using region-provided maps)	☐ No	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.