

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 will be given “substantial deference” in the Public Service Board’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 Board:

[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. If a Regional Plan has not received such a determination, until July 1, 2018¹, a municipality may submit its adopted and approved Municipal Plan to the Department of Public Service (DPS) for a determination of energy compliance (determination), along with the completed checklist below. After a Municipal Plan and completed checklist have been submitted to the RPC (or DPS), the RPC or DPS will schedule a public hearing noticed at least 15 days in advance by direct mail to the requesting municipal legislative body, on the RPC or DPS website, and in a newspaper of general publication in the municipality. The RPC or DPS shall issue a determination in writing within two months of the receipt of a request. If the determination is negative, the RPC or DPS 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)

¹ These standards will be revised after July 1, 2018 to reflect that Municipal Plans should be submitted only to the Regional Planning Commissions – which will all have had an opportunity to seek a determination of energy compliance – from that point forward.

Municipalities are encouraged to consult with their reviewer (either their RPC or DPS) 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 state’s Comprehensive Energy Plan (CEP) is revised on a 6-year basis. When the next CEP is published in 2022, it will include a revised set of standards, as well as Recommendations that are customized to regions and municipalities. The Recommendations that accompany this initial set of Standards represent a subset of recommendations from the 2016 CEP, which were not written with regions and municipalities specifically in mind. A Guidance document – which is expected to evolve as best practices from regions and municipalities emerge – will be published shortly after the Standards are issued. It will serve as the warehouse for relevant recommendations from the 2016 CEP, links to data sources, instructions on conducting analysis and mapping, and sample language/best practices. Once issued and until the 2022 CEP is published, this Guidance document will supplant the Recommendations document.

Affirmative determinations last for the life cycle of a revision of the Municipal Plan, and Municipal Plans that are submitted after the 2022 CEP is issued will be expected to meet the Standards that are issued at that time. Municipalities are encouraged to consult with their RPC or DPS 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 or to DPS 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. Determination requests to DPS until July 1, 2018 – and only for municipalities whose Regions’ plans have not received an affirmative determination – should be submitted to:

PSD.PlanningStandards@vermont.gov.

Part I: Applicant Information		
The plan being submitted for review is a:	<input checked="" type="checkbox"/> Municipal Plan in a region whose regional plan has received an affirmative determination of energy compliance from the Commissioner of Public Service Please submit these plans to your RPC	<input type="checkbox"/> Municipal Plan in a region whose regional plan has <u>not</u> received a determination of energy compliance Until July 1, 2018, please submit these to the DPS. After July 1, 2018, this option ceases to exist.
Applicant:	Town of Highgate	
Contact person:	Wendi Dusablon, Town Clern	
Contact information:	wdusablon@highgatevt.org	
Received by: Northwest Regional Planning Commission	Date: 8/21/2023	

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 and approved, 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 ?	<input checked="" type="checkbox"/> Yes. Adoption date: 7/20/2023 Confirmation date: 9/27/2023	<input type="checkbox"/> No	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?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> 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.

<p>3. Does the plan contain an energy element, that contains the same components described in 24 V.S.A. § 4348a(a)(3)? <i>Individual components of the energy element will be evaluated through the standards below.</i></p>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<p>Page: 28-36, 93-104 Notes: The Enhanced Energy Maps are located in Appendix A on page 93.</p>
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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 goals under [10 V.S.A. § 578\(a\)](#) (50% from 1990 levels by 2028; 75% 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](#) (25% of homes – or 80,000 units – made efficient by 2020)
- 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 no later than April 30, 2017 (and likely much sooner). 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), DPS is providing a guidance document 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). Note that standards 5A-4E 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.

<p>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)?</p>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<p>Page: 28-31 Notes: Click here to enter text.</p>
<p>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? <i>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</i></p>	<input checked="" type="checkbox"/> Yes-Region <input type="checkbox"/> Yes-Custom	<input type="checkbox"/> No	<p>Page: 28-33 Paragraph #: Click here to enter text. Notes: Click here to enter text.</p>

<i>developing a custom analysis, please answer “Yes-Custom” and address 5A-5E separately, below.</i>			
A. Does the plan estimate current energy use across transportation, heating, and electric sectors?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.
B. Does the plan establish 2025, 2035, and 2050 targets for thermal and electric efficiency improvements, and use of renewable energy for transportation, heating, and electricity?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.
C. Does the plan evaluate the amount of thermal-sector conservation, efficiency, and conversion to alternative heating fuels needed to achieve these targets?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.
D. Does the plan evaluate transportation system changes and land use strategies needed to achieve these targets?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Page: Paragraph #: Notes:
E. Does the plan evaluate electric-sector conservation and efficiency needed to achieve these targets?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Page: Paragraph #: Notes:

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).

DPS will be issuing a guidance document in the near term providing potential implementation actions derived from the Comprehensive Energy Plan (relevant formal Recommendations as well as opportunities not specifically called out as Recommendations), from recent regional and municipal plans, and from other sources. The guidance document will be revised after the regions have compiled best practices from early municipalities pursuing energy planning to seek a determination of energy compliance, in the summer of 2017.

For the time being, we offer potential implementation action options 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 both policies and implementation measures in clear, action-oriented language.			
<p>6. Does your plan's energy element contain a statement of policy on the conservation and efficient use of energy?</p>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<p>Page: 31-36, 91-92 Paragraph #: N/A Notes: There is no specific policy but each point is addressed as listed below.</p>
<p>A. Does the plan encourage conservation by individuals and organizations? <i>(Actions 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.)</i></p>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<p>Page: 36, 91-92 Paragraph #: Chapter 11: Recommendations for Implementing the Plan, under Enhanced Energy Plan Implementation. Goals and Objectives page of the Enhanced Energy Plan Notes: Both sections above include goals and recommendations that promote and encourage conservation among Highgate residents.</p>
<p>B. Does the plan promote efficient buildings? <i>(Actions could include promoting 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, etc.)</i></p>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<p>Page: 36 Paragraph #: The second point under Energy Goals. Notes: One of the town's energy goals is to promote efficient buildings through renewable fuel sources and enhanced weatherization.</p>
<p>C. Does the plan promote decreased use of fossil fuels for heating? <i>(Actions and policies could promote switching to wood, liquid biofuels, biogas, geothermal, and/or electricity. 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)</i></p>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<p>Page: 36 Paragraph #: Second to last point under Energy Objectives. Notes: One of the town's objectives is to promote the conversion of fossil fuel heating to alternative heating systems for homes and businesses.</p>
<p>D. Does the plan demonstrate the municipality's leadership by example with respect to the efficiency of municipal buildings? <i>(Actions could include building audits and weatherization projects in schools and town offices, etc.)</i></p>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A	<p>Page: 91 Paragraph #: Chapter 11: Recommendations for Implementing the Plan. Notes: Under Enhanced Energy Plan Implementation there is a goal to conduct</p>

			energy audits and identify weatherization retrofits for municipal buildings.
E. Other (please use the notes section to describe additional approaches that your municipality is taking)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Page: N/A Paragraph #: N/A Notes: N/A
7. Does your plan's energy element contain a statement of policy on reducing transportation energy demand and single-occupancy vehicle use, and encouraging use of renewable or lower-emission energy sources for transportation?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Page: 36, 91-92 Paragraph #: N/A Notes: There is no specific policy for transportation but there are goals and strategies mentioned on the Goal and Objectives page (36) and in Chapter 11: Recommendations for Implementing the Plan (91-92).
A. Does the plan encourage increased use of public transit? <i>(Actions could include participation in efforts to identify and develop new public transit routes, promote full utilization of existing routes, integrate park-and-rides with transit routes, etc.)</i>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A	Page: 36 Paragraph #: Point #3 under Objectives and Energy Goals. Notes: The third energy goal is to promote transit ridership. The third energy objective is to support public transit connections from Highgate to other regions.
B. Does the plan promote a shift away from single-occupancy vehicle trips, through strategies appropriate to the municipality? <i>(Actions could include rideshare, vanpool, car-sharing initiatives; efforts to develop or increase park-and-rides; enhancement of options such as rail and telecommuting; education; intergovernmental cooperation; etc.)</i>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Page: 36 Paragraph #: Goal #3 under Energy Goals. Notes: Goal #3 is to hold vehicle miles traveled to 2011 levels through transportation alternatives such as those listed to the left.
C. 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? <i>(Actions could include 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.)</i>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Page: 91 Paragraph #: 3 Notes: In order for Highgate to reach its transportation energy targets, the plan says that most light-duty vehicles will need to be electric and most heavy duty trucks will need to be converted to either biodiesel or diesel.

			There is no other mention of the promotion of alternative fuels for transportation.
D. Does the plan facilitate the development of walking and biking infrastructure through strategies appropriate to the municipality? <i>(Actions 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.)</i>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A	Page: 91 Paragraph #: Chapter 11: Recommendations for Implementing the Plan. Notes: Under Enhanced Energy Implementation one of the strategies to ensure the development of walking and biking infrastructure is to ensure municipal road standards reflect "complete streets" principles.
E. Does the plan demonstrate the municipality's leadership by example with respect to the efficiency of municipal transportation? <i>(Actions could include purchasing energy efficient municipal and fleet vehicles when practicable, installing electric vehicle charging infrastructure, etc.)</i>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A	Page: 91-92 Paragraph #: Chapter 11: Recommendations for Implementing the Plan. Notes: Under Enhanced Energy Implementation, one of the strategies for implementation is to plan for and install electric vehicle charging infrastructure on municipal property. It also says that municipal buildings are currently powered by solar energy.
F. Other (please use the notes section to describe additional approaches that your municipality is taking)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Page: N/A Paragraph #: N/A Notes: N/A
8. Does your plan's energy element contain a statement of policy on patterns and densities of land use likely to result in conservation of energy?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Page: 75-77, 92 Paragraph #: N/A Notes: N/A
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? <i>(Actions could include adopting limited sewer service areas, maximum building sizes along highways, 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</i>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Page: 92 Paragraph #: Chapter 11: Recommendations for Implementing the Plan, under Enhanced Energy Plan Implementation. Notes: Highgate plans to limit water and sewer expansion in certain areas to limit sprawl.

<i>cars; adopting a capital budget and program that furthers land use and transportation policies; etc.)</i>			
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? <i>(Actions 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; etc.)</i>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A	Page: 75-77 Paragraph #: N/A Notes: Although not specifically mentioned in the Enhanced Energy Plan, Highgate has a designated Village Growth Center which is discussed in Chapter 9: Land Use.
C. Other (please use the notes section to describe additional approaches that your municipality is taking)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Page: N/A Paragraph #: N/A Notes: N/A
9. Does your plan’s energy element contain a statement of policy on the development and siting of renewable energy resources?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Notes: N/A
A. Does the plan evaluate (estimates of or actual) generation from existing renewable energy generation in the municipality? <i>Municipalities should be able to obtain this information from their regions.</i>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Page: 31 Paragraph #: Table 5.5 Notes: Table 5.5 displays existing generation from each renewable energy type.
B. Does the plan analyze generation potential, through the mapping exercise (see <i>Mapping</i> standards, below), to determine potential from preferred and potentially suitable areas in the municipality? <i>Municipalities should be able to obtain this information from their regions.</i>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Page: 33 Paragraph #: Table 5.10 Notes: The data in table 5.10 is based on the mapping and calculations completed by the NRPC.
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 <i>Mapping</i> exercise, below), accounting for the fact that land may not be available due to private property constraints, site-specific constraints, or grid-related constraints? <i>If N/A, please describe how you are working with your regional planning commission to ensure overall regional objectives are achieved.</i>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A	Page: 33 Paragraph #: 3 Notes: Based on the maps created by the NRPC, Highgate has sufficient land to meet their electricity generation targets.
D. Does the plan ensure that any local constraints (locally designated resources or critical resources, from 12B and 12C under <i>Mapping</i> , below) do not prohibit or have the effect of prohibiting the provision of sufficient renewable energy to meet state, regional, or municipal targets?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A	Page: 33 Paragraph #: 3

<i>If N/A, please describe how you are working with your regional planning commission to ensure overall regional objectives are achieved.</i>			Notes: Despite local constraints, Highgate has sufficient land to meet their renewable electricity generation targets.
E. Does the plan include statements of policy to accompany maps (could include general siting guidelines), including statements of policy to accompany any preferred, potential, and unsuitable areas for siting generation (see 12 and 13 under <i>Mapping</i> , below)?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Page: 34-36 Paragraph #: N/A Notes: Preferred locations are identified along with an explanation of the maps.
F. Does the plan maximize the potential for renewable generation on preferred locations (such as the categories outlined under 12E in the <i>Mapping</i> standards, below)?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A	Page: 36 Paragraph #: Point #4 under Objectives. Notes: Objective #4 says that preferred locations shall be favored over the development of other sites.
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.)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A	Page: 91-92 Paragraph #: Chapter 11: Recommendations for Implementing the Plan, under Enhanced Energy Plan Implementation. Notes: Highgate uses solar energy to power municipal buildings and plans to install electric charging stations.
H. Other (please use the notes section to describe additional approaches that your municipality is taking)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A	Page: 92 Paragraph #: Chapter 11: Recommendations for Implementing the Plan, under Enhanced Energy Plan Implementation. Notes: Highgate supports the development of methane digesters.

Mapping Standards

Act 174 requires plans to identify 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. It furthermore requires that the standards address the potential generation from the potential siting areas.

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 region to meet the municipality’s needs. DPS 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 (already underway through support being provided to regions by DPS), and to then break out the maps for their municipalities, who can use their region-provided maps to meet the municipal *Mapping* standards (such “municipalization” work is being supported through a training & technical assistance contract between DPS and regions, and all regions must supply completed maps to their municipalities by April 30, 2017, though many are expected to do so much sooner).

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.

<p>10. Does your plan contain one or more maps that address 11-13 below, as provided by your Regional Planning Commission or as developed by your municipality? <i>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 #14. If developing custom maps, please answer “Yes-Custom” and address 11-13 separately, below.</i></p>	<input type="checkbox"/> Yes-Region <input checked="" type="checkbox"/> Yes-Custom	<input type="checkbox"/> No	<p>Page: 97-104 Paragraph #: N/A Notes: Maps included: Utility Service Areas, Transmission & 3 Phase Power Infrastructure, Natural Gas Lines, Existing Generation Facilities, Solar, Wind, Hydro, and Woody Biomass</p>
<p>11. Does the plan identify and map existing electric generation sources? <i>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 DPS.</i></p>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A	<p>Page: 100 Paragraph #: A.4 Notes: The Existing Generation Facilities Map displays Biomass, Hydro, Solar, and Wind Facilities.</p>
<p>12. 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?</p>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<p>Page: 93-95, 101-104 Paragraph #: Table A.1 & Maps A.5, 6, 7, and 8 Notes: Table A.1 lists known and possible constraints for each map.</p>

<p>Maps should include the following (available from VCGI and ANR), and the resulting Prime and Secondary Resource Maps will together comprise “potential areas”:</p>			
<p>A. Raw renewable energy potential analysis (wind and solar), using best available data layers (including LiDAR as appropriate)</p>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<p>Page: 34-35, 101-102 Paragraph #: Map A.5: Solar, Map A.6: Wind Notes: Pages 34-35 include the written analysis, the corresponding maps are located on pages 101-102.</p>
<p>B. Known constraints (signals likely, though not absolute, unsuitability for development based on statewide or local regulations or designated critical resources) to include:</p> <ul style="list-style-type: none"> • Vernal Pools (confirmed and unconfirmed layers) • DEC River Corridors • FEMA Floodways • State-significant Natural Communities and Rare, Threatened, and Endangered Species • National Wilderness Areas • Class 1 and Class 2 Wetlands (VSWI and advisory layers) • Regionally or Locally Identified Critical Resources <p><i>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).</i></p> <p><i>These areas should be subtracted from raw renewable energy resource potential maps to form Secondary Resource Maps</i></p>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<p>Page: 93-94 Paragraph #: Table A.1 Notes: Table A.1 lists the constraints associated with each map, including each known constraint as listed to the left.</p>
<p>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:</p> <ul style="list-style-type: none"> • Agricultural Soils • FEMA Special Flood Hazard Areas 	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<p>Page: 94-94 Paragraph #: Table A.1 Notes: Almost all possible constraints associated with the maps are listed in table A. 1 except FEMA Special Flood Hazard Areas.</p>

<ul style="list-style-type: none"> • Protected Lands (State fee lands and private conservation lands) • Act 250 Agricultural Soil Mitigation areas • Deer Wintering Areas • ANR’s Vermont Conservation Design Highest Priority Forest Blocks (or Habitat Blocks 9 & 10, for plans using regional maps in regions whose plans will be submitted for adoption at the regional level by March 1, 2017) • Hydric Soils • Regionally or Locally Identified Resources <i>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 view), 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.</i> 			
<p>D. Transmission and distribution resources and constraints, as well as transportation infrastructure. <i>(Including three-phase distribution lines, known constraints from resources such as Green Mountain Power’s solar map, known areas of high electric load, etc.)</i></p>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<p>Page: 98 Paragraph #: Map A.2 Notes: There are no known constraints related to transmission and distribution resources mentioned.</p>
<p>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>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.</i></p>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A	<p>Page: 35 Paragraph #: 1 Notes: The town’s preferred locations for solar generators are: rooftops, parking lots, landfills, and brownfield sites.</p>

<p>i. Statewide preferred locations such as rooftops (and other structures), parking lots, previously developed sites, brownfields, gravel pits, quarries, and Superfund sites</p>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A	<p>Page: 35 Paragraph #: 1 Notes: There is no mention of statewide preferred locations but those listed coincide with the town's preferred locations.</p>
<p>ii. Other potential locally preferred locations <i>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.</i> <i>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.</i></p>	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<p>Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: There is no other mention of locally preferred locations.</p>
<p>13. Does the plan identify areas that are unsuitable for siting renewable energy resources or particular categories or sizes of those resources? <i>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."</i></p>	<input type="checkbox"/> Yes ("Yes" for A and B must also be selected below)	<input checked="" type="checkbox"/> No	<p>Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.</p>
<p>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)? <i>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.</i></p>	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A (if no unsuitable areas are identified)	<p>Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.</p>
<p>B. Does the plan ensure that any regional or local constraints (regionally or locally designated resources or critical resources, from 12b-12c 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?</p>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<p>Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.</p>

<i>Please explain in the Notes column.</i>			
<p>14. 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?</p>	<input type="checkbox"/> Yes (also check Yes if seeking determination from region, or from DPS but using region-provided maps)	<input type="checkbox"/> No	<p>Page: Click here to enter text. Paragraph #: Click here to enter text. Notes: Click here to enter text.</p>