

To: Anne Margolis, Department of Public Service

From: Vermont Association of Planning and Development Agencies  
Jim Sullivan, Energy Committee Chair

Date: October 20, 2016

Subj: Comments on DRAFT Determination Standards for Energy Compliance

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The Vermont Association of Planning and Development Agencies (VAPDA) believes that the systems and procedures established through Act 174 represent a significant move toward improved energy planning while ensuring that municipalities and regions have an effective voice in the regulatory process. The Determination Standards that have been drafted by the DPS will promote the development of plans that are comprehensive and consistent. The Standards as drafted are clear and effectively cover energy conservation, efficiency, and development across all sectors. VAPAD offers the following comments in an effort to ensure that the final standards can be realistically applied and used to guide the development and review of plans.

Part I: No comments.

Part II: It may be helpful to have some additional guidance on the meaning and extent of “resources, needs, scarcities, problems” (especially “scarcities”) as they are not defined in statute. One RPC observed that a municipality’s statement of policy might be included, but may not be consistent with state energy policy.

Part III:

1. There is general agreement over the importance of including an analysis/estimate of current energy use, but considerable concern over data availability and consistency of methodologies, especially for municipal-level data. An example cited by several RPCs included the lack of data and resulting inability to estimate non-residential vehicle (i.e., other than passenger vehicles owned by residents) fuel use at the regional or local level.

*RPCs will need to conduct these analyses as part of their regional planning efforts and to develop municipal-level data as part of our technical assistance efforts. Guidance from DPS on data sources and methodologies will be most helpful. We understand that Efficiency Vermont is organizing electricity usage data at the town level. The long-term availability of energy use data (all fuels and sectors) through some mechanism or portal such as the Energy Dashboard developed by the Energy Action Network would ensure that this planning process can continue through future plan update cycles and with consistency throughout the state. This focus on data*

*is particularly important because the state's energy goals that are directing this planning effort are quantitative in nature and consistent, reliable data is essential to effective planning and implementation at the local, regional, and state levels.*

- 2-5. Clarification is sought regarding the setting of targets and level of detail required for estimates of energy conservation and fuel-switching needed to meet those targets in benchmark years. Is the LEAP data sufficient for use at the regional level? We are not sure how else to efficiently and consistently develop quantitative estimates. *This comment also raises the question of whether the LEAP analysis will be available in the future (i.e., for plan updates).*

A particular concern relates to the ability to set realistic targets and generally meet the “quantify” standards at the municipal level. Can this analysis be more general and based on the regional LEAP scenarios?

For some sectors, and especially at the municipal level, it will be difficult to set realistic targets in hard numbers unless we can use the LEAP scenario data. Transportation fuel use estimates will be a particular challenge, and this area is especially consequential when planning for future electricity supply given the expected growth in EV use over time (similar concern with fuel use for space heating in residential buildings). Use of the LEAP data resolves this concern, but we need to know that that level of analysis is sufficient and whether there should be a standard method to bring those estimates down to the municipal level.

- 6a. The “lead by example” standard is appropriate; noting that municipalities should be able to identify and be credited for past actions as well as their ideas for future initiatives. This standard also reflects a concern noted by one RPC that the standards are focused on analysis and goals rather than actions – a standard recognizing specific meaningful actions would be good.
- 6b. Flexibility is important in the transportation standards because of the diverse nature of towns and villages (e.g., very rural communities with no “center” have limited potential/need for sidewalks or other traditional “walking and biking infrastructure”).

How do we consistently assess “strong” efforts to prioritize development of compact centers (per vi)? Is it also important to discourage scattered development in outlying areas? It may prove particularly challenging to consistently apply this standard given the diversity of municipal land use patterns and plans. With something like water/sewer solutions, what level of “exploration” is sufficient to meet the standard?

A related issue deals with tourism-based communities and developments (including many ski areas, for example) that require large transportation energy expenditures for visitors to access the community/area. Is there sufficient flexibility to allow these communities to meet the standards? (Wondering if a discussion of access by rail and/or public transit, EV charging, etc. would be adequate?)

- 6c. Taking the analysis beyond needed capacity to “actual or estimated generation” or “generation potential” might be asking for something that will take more time and resources than it is worth. If a town decides to put more emphasis on electric heat pumps (and less on something like cord wood and pellets), the town may be able to estimate the amount of additional regional capacity, but should this be taken to the town level (capacity) and should estimates of actual generation (local?) be required? How much of this type of analysis can be left at the regional level?

Note from at least one region with large pending generation projects: regions should be able to “count” generation facilities with a CPG, but which have not yet been built when assessing future generation requirements.

Given the hundreds of small generators in a region, can we actually obtain good “actual generation” data? Do we have access to good data on regional/municipal load? *Guidelines from DPS on obtaining this data would be helpful and ensure consistency.*

#### Mapping:

- i. For generators, should be ok to just summarize and reference the Dashboard rather than try to produce legible local/regional maps with all of those point locations.
- ii.c. May be an unnecessary and time-consuming mapping requirement (mapping all producers of waste food and ag products – could mean it should include all restaurants, food stores, farms, etc.).
- ii.d. I don’t know if the policies need to “universally prohibit all development of any kind” as it may be possible to cluster certain types of developments or to provide screening – techniques that might not be practical for a solar or wind project. The basic point is good and important – to not prohibit energy development while allowing residential or commercial development that would have similar, or worse, impacts, but it might not be quite so absolute.

The standards also should recognize the limited regulatory function of municipal and regional plans (i.e., plans don’t generally have the effect of “prohibiting” development, notwithstanding their potential use as providing regulatory guidance in statewide (250, maybe 248) proceedings, although they do provide the basis for local regulations that may have that effect).

Mapping Constraints: Pilot RPCs are concerned with changes that affect the ability for their already-developed plans to be approved (and used in the development of municipal maps). To make significant changes to previously agreed-upon constraint layers would add a significant new expense and disrupt ongoing adoption processes.

Preferred Locations: Is it acceptable for towns and regions to provide criteria for determining what constitutes a “preferred location” rather than attempting to proactively map all of them (and likely miss some)?

Can the standard be satisfied if a plan does not identify preferred locations within the town/region?

Some additional questions/concerns were raised about the LEAP modeling. We are hoping that many questions will be answered at the upcoming meetings with VEIC, but these are the basic issues:

- Concern over accuracy and consistency of population growth projections: different agencies/entities using different assumptions; also, different regions are likely to see very different growth rates – can the modeling consider those differences?
- Regarding fuel use by vacant or seasonal homes: should the number be greater than 10% for some towns/regions which have many large second homes that are occupied during much of the winter and/or summer (resort and/or second home communities)?
- How does the LEAP electricity data comport with data that local municipal municipalities have? If the LEAP numbers are different, those utilities will view the projections with skepticism.
- Can the LEAP results be expected to be disaggregated to the municipal level? If not, given the wide variation among regions and municipalities, how can we use the projections at the local level (and if the LEAP model data can't be used at that level, what can be?). Is there a different way to handle projections at the local level?

And a final note from NRPC expressing concerns over the accuracy of existing generation data (discussed in standard 6c):

- This data has seemingly been provided to the RPCs for tabulation and integration into the regional energy plans without any real quality control. Here are some examples that I've found after only looking at the data for a few minutes:
- I've found duplicates of hydro CPGs and biomass CPGs in the data (I still can't accurately figure out that hydro facilities actually have CPGs at this point.....). The data says our region has 67 MW of hydro generation region. When I do that math myself that region only has 41 MW of hydro generation. A 26 MW gap is difficult to explain.
- I've found a solar facility located in our region that is listed as being located in Washington County in the data based.
- The Georgia Community Wind Project as being fully listed in Chittenden County, but half the project is located in Franklin County.



TO: Department of Public Service

FROM: Chittenden County Regional Planning Commission Board Members

DATE: October 20, 2016

RE: Comments on the Draft Energy Compliance Standards

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The Chittenden County Regional Planning Commission (CCRPC) appreciates the opportunity to comment on the Department of Public Service's DRAFT Determination Standards for Energy Compliance. CCRPC's comments are responding to the draft standards with a particular focus on asking for further clarification on the components of the standards to ensure that the way in which a region or town can attain an affirmative energy compliance determination is flexible and achievable. Below is a list of items that reflect the comments of CCRPC's Planning Advisory Committee, Energy Sub-Committee, and the Board.

1. In Part II item 1 of the energy compliance standards on page 2, it is stated that: Act 174 requires regional and municipal plans be adopted/approved in order to qualify for a determination of energy compliance.

- CCRPC feels that the timing of seeking energy compliance determination after a plan is adopted makes it very difficult for a region or town to address any necessary changes in their plan if a negative determination is received. CCRPC requests that an optional pre-application process be put in place to assure that the Department of Public Service can identify deficiencies prior to plan adoption. In developing this process, CCRPC asks that the process be simple as to not introduce a lengthy time of review.

2. Part II also describes that towns and regions are required to undergo "enhanced energy planning" through an enhanced energy chapter, town plan amendment or a supporting plan.

- Please clarify the process for towns choosing to adopt a supporting energy plan. Does it need to be referenced in the town plan in order for the town to be given substantial deference in the section 248 process?

3. In Part II and Part III, the energy compliance standards state that if the requirement is not met, the checklist must satisfactorily explain and justify why it does not, and refers to the consistency standard.

- CCRPC appreciates incorporation of the consistency standard that we currently use for all state goals in regional and municipal planning. However, we ask for further clarification on the ultimate threshold for standards that are not relevant or attainable. In other words, is there a maximum number of standards that a region or municipality can mark as not relevant or attainable before they receive a negative determination? Additionally, if an applicant cannot meet a particular standard part of the justification

for why it does not should ask the applicant to include an explanation on how the entity is still able to reach the target. This type of explanation is required in the Pathways section. Consider adding this to all components of the standard.

4. Part II describes the components of a town/regional energy element of a plan as required in 24 V.S.A. § 4348a(a)(3).

- CCRPC feels that the checklist can be greatly simplified by combining Part II and Part III. It appears that these are separate sections based on separate sections of statute, however they are asking for the same language in the Plans so it should be combined. This would also help clarify that the consistency standard will be applied throughout. For example, Part II item 2 is asking for the same type of analysis as the Analysis & Target standards in Part III and the questions from Part II that apply to analysis should be integrated into Part III where appropriate.

5. The description in Part III on page 5 under that Analysis & Target heading refers to a Regional Plan breaking out the analysis for their municipalities.

- CCRPC asks whether a region is required to also break out the targets discussed in item 2 on page 6. If so, please clearly state that this is a requirement.
- CCRPC asks for clarification on whether community Solar Arrays (CSA) count towards a towns or regions renewable energy target even if the facility is not within its boundary.

6. In Part III Analysis & Targets, the standards say municipalities may choose to rely on a regional plan that has received an affirmative energy determination and is also presumed to meet the energy compliance standards.

- CCRPC asks for guidance on how a municipality would rely on the Regional Plan to serve as its energy element in the section 248 process. Also, could a municipality rely on the Regional Plan for the analysis and supplement the pathways and/or mapping components with their own local plan? We presume the municipality would need to either have everything in their local plan, or rely completely on the regional plan if the method for this is 24 VSA § 4349(a), but would appreciate the clarification. We anticipate that there may be a level of specificity in the local plans that we won't be able to fully incorporate in the Regional Plan.
- Additionally, if a municipality chooses to do its own analysis prior to the Regional Energy Plan receiving a positive energy determination, CCRPC asks whether data available on the Energy Action Network's Community Energy Dashboard is sufficient to meet this analysis and target standards. If so, please include that this is resource for towns to comply with Act 174 and provide guidance on its proper use for achieving energy compliance. If not, we find the analysis too onerous for a municipality to do this work on their own before the RPC completes their planning process.

7. Part III Analysis and Targets item 2 on page 6, asks if a plan establishes targets for energy conservation, efficiency, fuel-switching, and use of renewable energy for transportation, heating, and electricity?

- CCRPC asks if a target range is acceptable to meet this part of the standard and if renewable generation targets from wind, solar, biomass, and hydro-electric energy are also required.
8. Part III Pathways includes an “other” category under each sector (an example is Part III, Item 6.a.vi. on page 8).
- CCRPC asks can the pathways/implementation actions that a region or municipality lists under “other” replace all of the previous pathways (in this example it would be Part III, Item 6.a.i to 6.a.v.)?
9. Throughout the standards the terminology, "policy and/or implementation measures" are used.
- Consider changing all instances of this terminology to "policy and implementation measures", by removing "or". This change is important because a plan could have a policy that is in support of something, but no implementation measures that support it. The lack of implementation measures means that the policy will likely never actually be implemented, so having only the policy should not be considered strong enough to gain a certificate of determination.
10. On page 10 item C.i. refers to “existing electric load”.
- Consider improving the title of item C. to reflect that both load and generation components are needed to satisfy this part of the standard.
11. On page 5. Part III item 1. the question requires the applicant to check “Yes” if the plan includes an analysis of “current energy use...” and if “items a-c is checked below”
- Consider removing the part “(a-c checked, below)” as question 1 is general in nature and the questions below are more specific.
12. On Page 13, wetlands and transportation infrastructure are identified as known constraints.
- Consider further defining the types of wetlands that prohibit development of renewable energy facilities entirely and consider moving transportation infrastructure to a potential constraint.



October 20, 2016

Anne Margolis  
Vermont Public Service Department  
112 State Street, Room 241  
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Ms. Margolis;

The Vermont Department of Public Service continues to work to ensure a sustainable energy future. As such, the Department has developed specific guidance to assist regions and municipalities plan for their future energy needs. The Central Vermont Regional Planning Commission (CVRPC) received the draft Determination Standards for Energy Compliance on September 26, 2016. The following comments are presented for consideration by the Department of Public Service (the Department) in advance of the draft guidelines being finalized.

1. The draft standards note that municipalities may request review of municipal energy plans by the Department until July 1, 2018 and after such date will need to go to their respective regional planning commission.
  - a) If the regional planning commission does not have an energy plan with an affirmative determination from the Department on or before July 1, 2018, what options are available to the municipality?
  - b) Will regional planning commissions be able to submit plans to the Department for an affirmative determination of energy compliance after July 1, 2018, and if not, what pathway exists to receive an affirmative determination?
  - c) How will future updates or amendments to regional or local plans be addressed to maintain “substantial deference”? Will there be specific thresholds that require a full review for compliance with the standards or will any amendment trigger a complete review?
2. The section on Analysis and Targets notes that data will be broken down by municipality. This may be problematic as there is no consistent format for reporting available data. For example, data on current electricity usage is presented by zip code and not municipality. In the Central Vermont Region some municipalities have multiple zip codes that cross municipal boundaries making it difficult to assign usage to an individual municipality.


Additionally, there are instances where municipal data is not directly available. For example, data from the Renewable Energy Atlas does not differentiate between Barre City and Barre Town and instead lists them as one entity. If possible, specific sources of data (including formats) should be identified to ensure accurate and consistent information is being utilized by regions and individual municipalities.



3. Are there metrics that should be used to evaluate the success (or lack thereof) when reviewing specific analysis of data? For example, under the Analysis and Targets section, item 5a. notes the inclusion of the net change in specific areas. Does any net change qualify (positive or negative) or should a targeted net change be used to evaluate this component of the plan?
4. Under the Mapping section there is a requirement to identify and map existing electric generation and renewable generators (item i). Will the Department (or another entity) be maintaining a publicly accessible database of these locations or is it intended to be the responsibility of the regions or individual municipalities to identify and map these resources?

On behalf of the Central Vermont Regional Planning Commission, thank you for the opportunity to provide comments on these critical standards that will help shape and provide guidance on Vermont's energy future. Please feel free to contact me if you have any questions about any of the above comments at 802.229.0389 or [vorwald@cvregion.com](mailto:vorwald@cvregion.com).

Regards,



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Senior Planner



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October 18, 2016

Dr. Asa Hopkins  
Director, Planning and Energy Resources Division  
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112 State Street  
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SUBJECT: SWCRPC's Comments on the DPS' Standards for Determination of Energy Compliance

Dear Dr. Hopkins:

The Southern Windsor County Regional Planning Commission (SWCRPC) has reviewed the Department of Public Service's Draft Standards for Determination of Energy Compliance. In general the Determination Standards represent a positive step forward towards granting regions and municipalities the level of participation in the Section 248 process while ensuring that participation is based upon sound energy planning.

The SWCRPC offers the following specific comments for your consideration:

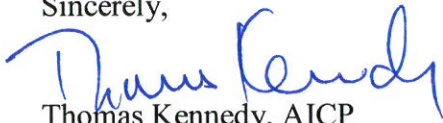
- ✓ Part II, Section 2, pages 2-3: What level of detail is expected of the resource analysis? For example, how much detail is expected to be included in a town plan when analyzing thermal sector scarcities?
- ✓ Part II, Section 3-4, page 3: This section asks if the plan "contains a statement of policy", but it does not evaluate if they are making substantial progress toward state energy goals.
- ✓ Part III, Section 1, page 5: Is the data required to complete this analysis available at the regional and municipal levels?
- ✓ Part III, Section 6.b.i, page 8: Will this be evaluated based upon the "Standard of Review" under 24 V.S.A. Sec. 4302(f)? In other words, public transit may not be feasible in very small towns and the Standards should recognize that.
- ✓ Part III, Section 6.b.v, page 9: The terms "purpose statements" and "districts" suggest de facto zoning bylaws and should be reworded.
- ✓ Mapping, Section i, page 12: Renewable energy generators are being developed rapidly and the resulting data is never up to date. Since plans are now valid for 8 years, the Standards should recognize this and allow for the best available information at the time the document was being prepared.
- ✓ Mapping, Section ii.d, page 13:
  - The categories included in this section appear to be slightly different than the current mapping methodology given to RPCs as part of the Regional Energy Planning efforts. The categories should be consistent between the two.
  - Some leeway should be given to development within Regionally or Locally Identified Critical Resource Areas. For example, a town may wish to preserve a series of parcels as a wildlife

travel corridor. Certain types of development within this area, e.g. a single family home sited to the periphery of the corridor, will not negatively detract from the functionality of the corridor, but a large solar array would definitely do so. Furthermore, the other categories listed in this section, such as River Corridors, do allow for certain types of development.

- The source of the mapping data should be identified, e.g. River Corridors as mapped by ANR and Wetlands - Classes 1 and 2 from the Vermont Significant Wetlands Inventory.
- ✓ Mapping, Section ii.e, page 14:
  - FEMA Flood Zones should be changed to FEMA Floodplains (Floodway Fringe).
  - Agricultural Soils should be redefined to match the categories included in Act 250 – i.e. prime, statewide, and local importance.
  - What types of conserved land should be included, privately conserved, Wildlife Management Areas, and State Forests?
- ✓ Mapping, Section iv, page 16: What will happen if a region or municipality has met its “quota” for a certain type of energy or if a particular resource doesn’t make sense in that region?

Please feel free to contact me with any questions.

Sincerely,



Thomas Kennedy, AICP  
Executive Director



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To: Vermont Department of Public Service  
From: Vermont Planners Association  
Sharon Murray, AICP Legislative Liaison  
Date: October 20, 2016

### RE: Draft Determination Standards for Energy Compliance –VPA Comments

Thank you for the opportunity to review and provide feedback on the draft standards issued by the department on September 26<sup>th</sup>. As you know, VPA was represented on the siting task force that resulted in A.174 – advocating for its passage in the legislature, consistent with task force recommendations – and has actively participated in subsequent advisory group and stakeholder meetings hosted by the department. As such, we have a keen interest in how this initiative – to better integrate energy and land use planning and to give municipal and regional plans more weight in Section 248 proceedings – will be implemented over the next few months, and in the years to come.

The department's draft determination standards and related information was circulated to our membership, consisting of professional planners working for local, regional and state agencies, nonprofits and in private practice, and members from allied professions and volunteer boards. The following is a summary of the limited feedback we've received to date. Several of our members have also submitted comments individually and/or on behalf of the organizations they represent. We also acknowledge that, given your November 1<sup>st</sup> statutory deadline, the initial standards adopted by the department will largely reflect what is represented in this draft. Please retain these comments for future updates as appropriate.

### 24 VSA Chapter 117 (VT Planning and Development Act) Considerations

We very much appreciate the department's intent to incorporate energy plan review into the existing framework for the review of municipal, regional and state agency plans, as previously established under Chapter 117, and as referenced under A.174. Given that enhanced energy planning was included under Title 24 (rather than Title 30), we believe that related provisions under Chapter 117 control.

**Standards of Review.** The general standards that apply to the review of plans – both for consistency with state planning goals (including incorporated energy goals) and compatibility with other plans (including state energy plans) – are clearly set forth under **§ 4302(f) Standard of Review:**

(1) As used in this chapter, "**consistent with the goals**" requires substantial progress toward attainment of the goals established in this section, unless the planning body determines that a particular goal is not relevant or attainable. If such a determination is made, the planning body shall identify the goal in the plan and describe the situation, explain why the goal is not relevant or attainable, and indicate what measures should be taken to mitigate any adverse effects of not making substantial progress toward that goal. The determination of relevance or attainability shall be subject to review as part of a consistency determination under this chapter.

(2) As used in this chapter, for one plan to be "**compatible with**" another, the plan in question, as implemented, will not significantly reduce the desired effect of the implementation of the other plan. If a plan, as implemented, will significantly reduce the desired effect of the other plan, the plan may be considered compatible if it includes the following:

- (A) a statement that identifies the ways that it will significantly reduce the desired effect of the other plan;
- (B) an explanation of why any incompatible portion of the plan in question is essential to the desired effect of the plan as a whole;
- (C) an explanation of why, with respect to any incompatible portion of the plan in question, there is no reasonable alternative way to achieve the desired effect of the plan; and
- (D) an explanation of how any incompatible portion of the plan in question has been structured to mitigate its detrimental effects on the implementation of the other plan.

With regard to how these standards have been applied to date, we defer to our regional planning commissions who review plans on a regular basis. It's important to note, however, that under each of these statutory standards, municipalities and regions have the ability to explain, within the context of their plan, why a particular goal or objective cannot be met, or why incompatibilities exist – in recognition that circumstances, needs, available information and planning capacity may vary greatly from one community and region to the next.

- The department should more specifically recognize and incorporate Chapter 117 standards of plan review in the determination standards applicable to the review of municipal and regional energy plans, and in related guidance documents.
- That said, the draft standards appear to generally, if not more specifically, incorporate these statutory standards under most (but not all) proposed determination standards by providing the option to identify and explain why a certain standard is either not applicable, or cannot be met.
- Statutory standards should also apply to the review of future state energy plans, with regard to plan consistency with state planning and land use goals, as also required under A.174.

**Statutory Content.** Chapter 117 as amended under A.174 includes the following description of the regional and “enhanced” municipal energy element, as cited in the draft:

(3) 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.

- While § 4352 now requires that plans must include this element for determinations of compliance, as highlighted above the energy element may include or address everything listed, but as “may” is defined under Chapter 117 (§ 4303) – and typically applied under the planning statutes – the element is not **required** to include everything listed, as presumed under the draft standards. This is addressed to a certain extent by including “not applicable” in the checklist, as noted above. It is not clear, however, whether the plan can still receive a determination of compliance if one or more of the listed considerations is not included.
- Related guidance needs to more specifically highlight those considerations (planning requirements) that are particularly relevant to the use of regional and municipal plans in section 248 review for the siting of energy facilities, as originally intended and recommended by the siting task force. This appears to have been lost in focusing on compliance with broader state energy goals and plan objectives.
- The focus of the energy element is on conservation, efficiency and renewable energy (solar, wind), but questions have come up with regard to also incorporating other types of energy facilities and infrastructure in regional and municipal energy elements – including substations, transmission and distribution lines

(e.g., as identified by utilities or included in VELCO's Long Range Transmission Plan) – that are also subject to Section 248 review. These may also be addressed separately, under required utility and facility elements, but clearly relate to energy and land use planning. Additional guidance in this area would also be useful.

**Plan Amendment and Adoption.** Chapter 117 was also amended in 2016 to extend the life of municipal plans (from 5 to 8 years) and to clarify the plan amendment process.

- Draft standards consistently reference municipal and regional “plans” but it is more likely, especially in this initial phase of development, that separate energy elements or energy plans (as in the regional pilot project) will be developed and subsequently adopted as amendments to existing plans. It is not reasonable to expect municipalities and regions to undertake comprehensive plan updates to meet more specific energy planning requirements. In order to address the department's desire for internal consistency (with the plan's land use, transportation and conservation elements), we instead recommend that the **planning commission report** required for plan amendments (under 24 VSA § 4384), as submitted for energy compliance review, address internal plan consistency under applicable determination standards.
- The draft standards, per A.174, apply to the review of **adopted** municipal and regional plans. We ask that the department also consider an optional **pre-adoption plan review process**, for example, to allow the review of public hearing drafts. Given that municipal and regional plan adoption under Chapter 117 can be lengthy, time consuming and expensive– and may require a warned town vote at the local level – it would be easier to address any needed changes identified during compliance review in the draft stage, prior to final adoption. The final compliance determination could then be made contingent on plan adoption by the municipality.

### **Draft Determination Standards**

We've received several comments that the draft standards as presented (and in the absence of related guidance) are overwhelming – especially for smaller communities that lack staff and resources, and rely on lay, volunteer planning commissioners. Few if any municipalities will be able to do this level of planning – and especially the types of analyses required – without outside assistance from their RPC or consultants. This may be addressed to a limited extent by forthcoming technical assistance and guidance, and by allowing municipalities to adopt regional energy plans. But as also noted in the draft, regional plans differ in scale and scope, and thus may not be that helpful in addressing local concerns, especially with regard to facility siting in Section 248 proceedings. Hopefully the type and degree of energy planning required will be more clearly defined (and refined) in the coming year, through the work of the RPCs and additional guidance and assistance from the department.

- The checklist format was generally well received, and reflects similar formats currently used by RPCs in the review of municipal plans. As noted above, a N/A (not applicable) option, with explanatory notes, should be included under *all* listed standards.
- There appears to be unnecessary redundancy and overlap between Part II (Enhanced Energy Element Checklist) and Part III (Determination Standards Checklist) – we suggest that these be combined by incorporating relevant determination standards from Part II under related element headings included in Part I.
- There are many questions and concerns regarding required analyses and targets (and how these are related) – including the validity and heavy reliance on modeling currently being undertaken at the regional level, particularly as it may be applied locally, and more significantly the current and long-term availability of data needed to perform these types of analyses, especially given:

- The lack of consistent, regularly updated state, regional and municipal population, housing and employment estimates and projections.
- The difficulty in obtaining any useful data at the municipal level (e.g., having to rely on ACS 5-year estimates).
- The difficulty in obtaining energy and especially utility data, given that much of it is protected and therefore unavailable at the local and regional level.

The Community Energy Dashboard currently under development by the Energy Action Network is critical to local energy planning, and will hopefully bring us several steps closer to having the data we need – to at some point also address transportation sector energy use and non-regulated fuels. This initiative should continue to receive state support.

- There is also a question regarding whether RPCs are required to set local “targets” under the standards – additional clarification is needed with regard to what these represent, and how they are to be used. If offered as guidance, this type of information will be very useful at the local level. There is also a concern, however, that the need to include municipal targets could delay the regional plan adoption process, in the event that one or more municipalities don’t agree with their proposed targets. There’s also the question of what to do if locally developed targets differ significantly from regionally adopted targets.
- Some current state energy goals (e.g., weatherization) clearly have not been met – this should be incorporated in adjusted regional and municipal energy targets.
- In addition to local and regional planning capacity, a review of “pathways” (plan policies, implementation measures) for consistency with state goals and compatibility with state energy plans must take into consideration legislative authority – i.e., what communities and regions have the power to do. The standards as drafted largely appear to take this into account but, as noted in related guidance, many of the measures identified in the state’s current energy plans, including some outlined in the draft standards, are beyond the scope of municipal and regional authority to control, implement or achieve.
- While Vermont is largely a rural state, many of the strategies identified to date are more urban in scope, and as such will likely apply only in the few municipalities with the necessary infrastructure capacity and resources –e.g., to support concentrated, higher density development, public transit, etc. More clarity and some flexibility that distinguishes between urban and municipalities will be needed with regard to how standards and accompanying strategies are applied.
- Mapping standards – and especially “known constraints”– need more definition or clarification with regard to what they represent, and how they may apply. There seems especially to be some confusion regarding the levels (or tiers) of mapped constraints. For some consistency statewide it’s been suggested that Tier I (statewide) constraints be defined by the state, Tier II (regional) constraints be defined by the RPCs, and Tier III (local) constraints be defined by municipalities –individually as part of the local energy planning process and/or in association with RPC mapping. These could then each be further classified as primary (no build) constraints or secondary (potentially mitigatable) constraints.

### **Section 248 Review**

- The draft standards understandably focus on energy plan compliance with state energy goals and plans; but miss the boat with regard to the original intent – to give plans more weight in Section 248 proceedings, as interpreted by the PSB,. As such the standards and related guidance should also address specific Section 248 criteria – e.g., with regard to mapping standards (listed resources), overall economic development of the region, land conservation policies, community standards related to aesthetics, and recommended

planning standards for landscaping and screening under related bylaws or ordinances (given that under Chapter 117 these must also conform to and have the purpose of implementing the municipal plan).

- Under the draft standards, policies are to be given preference over maps, if a conflict exists. We believe the maps, as plan (i.e., policy) documents, should receive at least equal weight in Section 248 as written policy statements, given the process required to create them – and to more clearly and specifically address the spatial and land use context of proposed energy development as it relates to a particular area or property, as called for under previous PSB findings and orders.
- There's a real concern that many smaller, rural municipalities without planning staff, in which much recent energy development has occurred or has been proposed, will be at a disadvantage with respect to their ability to develop compliant plans, and to more effectively participate in Section 248 proceedings, which may result in inequities in the siting and review process. This is especially true in the interim for municipalities faced with large-scale renewable energy development that may wish to seek a determination of local plan compliance in advance of a regional plan determination.
- Additional clarification may be needed with regard to municipal adoption and use of a regional energy plan for consideration in Section 248 proceedings – especially if the RPC and municipality offer differing interpretations of relevant plan policies and maps.
- There's also lingering skepticism regarding the effective meaning of “substantial deference” as it may be interpreted and applied by the Public Service Board, given past PSB precedent and findings under recent orders. It's been suggested that the PSB also receive some instruction and guidance (from the department and legislature) regarding the intent of A.174. It's also been suggested that, in addition to guidance regarding determinations of plan compliance (including related siting and mapping standards), the department, in association with RPCs, should provide specific guidance on plan policy language deemed acceptable by PSB for consideration in Section 248 proceedings—e.g., with regard to its specificity, consistency, etc.





October 20, 2016

Anne Margolis  
Renewable Energy Development Manager  
VT Department of Public Service

**re: Comments on Draft Act 174 Determination Standards**

Dear Anne,

Thank you for the opportunity to provide input on the draft Act 174 renewable energy siting standards. I have followed the development of the draft standards, and, having met with the team at the DPS at various times throughout the process, appreciate the attention you have given to this important subject.

Below please find a handful of comments for the Department's consideration:

1. Part II, Item 1. There should be an optional pre-application review process for compliance with the standards. While this is likely to be the practice in most regions, having this written into the standards will remind and encourage municipalities and RPCs to review draft plans in advance before they've been adopted, while edits can still be made.
2. Part II vs. Part III. There seems to be some redundancy in the checklist requirements between Parts II and III. Understanding that they have different original sources (Title 24 vs. Act 174), both refer to what would need to be in a Town Plan that meets the criteria for substantial deference. To make this easier for towns, especially, to follow, these two areas could be combined for a single set of review criteria.
3. Part II, Item 2. Note that while the checklist for each subsection of 24 V.S.A. § 4348a(a)(3) requests an assessment of Yes / No / n/a, that under the statutory language is permissive (may) rather than a requirement (shall) of an energy element. Combining Parts II and III as described above may help address this.
4. Part III, Targets & Analyses. The discussion under "Analysis and Targets" includes that "For the analysis determination standards below, regions are expected to develop their own analysis, and to break out the analysis for their municipalities." Under # 2, the checklist asks "Does the plan establish 2025, 2035, and 2050 targets for energy conservation, efficiency, fuel-switching, and use of renewable energy for transportation, heating, and electricity?" Is this intended to be performed at the Regional AND Municipal Level, or just the Regional Level?
5. Part III, Targets & Analyses. Setting local targets (by sector or in total) is challenging and could lead to undesirable outcomes of pitting communities against each other or the region in the development of these targets (for example, "whose responsibility is to generate power for housing, the town that already has agreed to accept housing development, or the town that has not?"). Understanding the importance of setting goals for entities to reach towards, the Department could consider a flexible approach. Perhaps an RPC could establish a series of

different ways that targets could be applied at the local level (such as by population, by suitable land, by proximity to 3-phase power, or other manners), and then to provide this RANGE of targets to the municipalities to fall within.

6. Part III, Pathways. Is it intentional that some of the checkboxes have a Y/N option, while others have a Y/N/ n/a option? If so, that should be made more clear.
7. Part III, Pathways. At the end of each sector's checklist is a catch-all "other" category. Is it optional or a requirement to include strategies in this area? It's unclear. I would recommend for it to be optional, AND for an RPC/municipality to be able to use this category to substitute something in this list for one or more of the items listed above (eg: check n/a for an item above and indicate that the alternative has been used instead). Vermont is home to such a wide variety of cities and towns. Almost by definition, some of the tools that a large City such as South Burlington would apply will be different than a small town.
8. Part III, Mapping, Known and Potential Constraints. While mapping these can be a relatively straightforward exercise, the standards provide little guidance to regions or municipalities about what would need to be said about any of these constraints in order for their plans to be given substantial deference. What link between the mapping and the assessment under item (iii) of unsuitable areas will be required for a Plan to be given substantial deference?
9. Other, Local vs. Regional Plans. It is not clear, or at least not apparent, what happens if there is a finer grain of analysis at one level of plans vs. the other. For example, a municipal plan may identify a location as preferred while at a regional mapping level, it is not. Or a local plan may have a finer grain of detail of unsuitable areas (vernal pools, for example) than the Regional Plan. Assuming that the RPC approves the local Plan, how is the PSB to address these differences that are based on levels of detail?
10. General Comment. In reviewing the draft standards, I suspect that many local municipalities who are interested in gaining a substantial deference qualification will rely on a significant amount of the research work being completed at the Regional level, and will want to use as much of that information and analysis as possible. As the Department finalizes the standards, this likely scenario should be closely considered to be sure it's as straightforward as possible.
11. General Comment. Related to the comments above, I also suspect that many towns may want to lean heavily on the Regional Plan, but then make a few minor adjustments for their own needs. Allowing this to take place in a simple, straightforward manner would benefit all parties and increase the likelihood that towns make use of this legislation and make the commitments to meeting the State energy targets.

Thank you again for the opportunity to comment. Should you have any questions, please feel free to contact me.

Sincerely,



Paul Conner, AICP, MCIP  
Director of Planning & Zoning

cc: Kevin Dorn, City Manager; Helen Riehle, Chair, City Council; Jessica Louisos, Chair, Planning Commission; Keith Epstein, Chair, Energy Committee

From: [Robin Pierce](#)  
To: [PSD - Planning Standards](#)  
Subject: DPS Standards  
Date: Wednesday, October 05, 2016 10:43:02 AM

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Please note and seriously consider my comments regarding standards for siting renewable energy in a holistic way that puts the Vermont Brand of Compact Settlements surrounded by Productive Open Farmland as the number one criteria in siting renewable energy.

1. This is an idea that renewable energy development is less disruptive to the land. Equipment used to ready sites for renewable energy is as heavy as that used for residential developments. Therefore soil microbes are crushed, the land is compacted, thus its ability to retain water is reduced, and stormwater runoff is increased. Yes at renewable energy sites grass can grow and animals can eat. However, the differences aren't that large in terms of soil, or indeed visual impacts. A residential PUD with open land that produced vegetables and supported animals would look more at home in the landscape than many renewable installations.
2. The discussion regarding selection of optimum sites for renewable energy had me concerned; it seems to be a one dimensional look at an important issue. Two criterion groups that are being considered should be expanded. Developing something akin to Ian McHarg's Layer Cake method espoused in his seminal book, Design with Nature. This could bring the Vermont Brand; compact settlements surrounded by productive open farmland into the matrix as a critical component, and hopefully the umbrella under which all other criteria should fit. The optimal site for energy production should NOT be the deciding factor.
3. There is no nexus yet between renewable energy and aesthetics. I'm sure someone who designs a wind turbine would find it a beautifully engineered and very efficient. But does it look at home in the landscape? I assume over time this will change. We are not there yet.
4. There is no doubt that renewable energy is the way forward. However we need to take a step back and look at how we make decisions. Why can't we design a wind sculpture that has energy producing turbines but is first and foremost a work of art? Let's make STEM, STEAM.
5. We should be right sizing renewable energy installations so that they produce the energy needed for the place they are in. Transmission lines are an important part of our energy infrastructure. However, do we need to hook renewable energy into them? Energy is lost in the transmission and if it's from a renewable source it's a little like putting wooden wheels on a Tesla! There are lots of flat roofed building in our major settlements. We could put solar panels on them in a way that is screened (perhaps by green garden roof edges that produce flowers, food), and have the energy collected where it is needed most and used. No transmission lines needed in this scenario.
6. Education for young children, not parents (old habits die hard) in the vein of the recycle movement so that children 'educate' or bug their parents to the point that they become more energy conscious and use less. I believe using less is the bridge to a renewable energy future: A building designed to the highest energy standards could be the least energy efficient building on the street if the users have the thermostat at 75 degrees and all the windows open on a subzero night. **Energy conservation is not a passive activity**; it is not enough to build more efficient buildings, or increase renewable resources. We also need to use less and that is a critical component of any Energy Plan or Energy Policy moving forward.
7. It would be more than ironic if we despoiled the Vermont Brand in a rush to add renewable energy to our list of achievements. I don't think the two are mutually exclusive. But, we do need to insure that when we make renewable energy decisions they are compatible with the Brand that garnered the reputation Vermont currently has. Looking back I believe we would be proud to think the way we moved our renewable energy future forward is a model for others, rather than a warning of what not to do.

Thank for listening/considering these thoughts.

Robin Pierce  
1081 Greenbush Road  
Charlotte, VT 05445.

802-238-6364..



## TOWN OF BARRE, VERMONT

OFFICE OF THE TOWN MANAGER  
WEBSTERVILLE, VT 05678-0116  
TELEPHONE: 802-479-9331  
FAX: 802-479-9332

TOWN MANAGER  
Carl Rogers  
802-479-9331  
crogers@barretown.org

October 18, 2016

Public Service Department  
Attn: Christopher Recchia, Commissioner  
112 State Street  
Montpelier, VT 05602-2601

Re: Joint comments from the Barre Town Selectboard and Planning Commission regarding the draft Energy Planning Standards

Dear Mr. Recchia,

Thank you for the opportunity to provide comment regarding the draft Regional and Municipal Energy Planning Standards. It is certainly clear that there has been a lot of time and effort put into the development of these standards, however, we find that not only do they fall far short of our needs, they also are extremely arduous. Complying with these standards has the appearance of being so difficult that it likely means being able to provide meaningful input at Public Service Board (PSB) section 248 proceedings during the renewable energy siting process is as limited as it is now or possibly worse. It was our hope that municipalities would be able to incorporate these standards into our plans and be given substantial deference as soon as possible as the next wave of renewable projects are sure to be coming forth based on Green Mountain Power's (GMP) recent approval to expand its net-metered allocation through its supplemental net-metering program.

The draft Energy Planning Standards are far in excess of what our Town or likely most Towns could reasonably be expected to draft, hold public hearings on, and implement within a relatively short period of time. Town plans are written by volunteer Planning Commissions which mostly do not have the resources to draft a document of the magnitude the draft standards would require. We question whether the Central Vermont Regional Planning Commission (CVRPC) will have the information or materials readily available to address the requirements of these standards. The CVRPC doesn't even have an approved energy plan.

While the State's Comprehensive Energy Plan is geared to look into the future and make projections, a Town Plan is a document that defines the vision of a Town as to where we are today and where we would like to be in the relatively near future. It also quantifies our strengths and weaknesses and how to work towards bettering our community. A Town Plan also outlines what is important to quality of life. Within the plan is a distinct energy section and throughout the plan energy related issues are found.

We understand that the Public Service Department (PSD) was tasked with coming up with standards, it seems like between Act 174, the PSD and the PSB, a huge burden has been placed on each and every Town to do an extensive rewrite of their Town Plans in order to get any say or have real input “substantial deference” in how renewable energy projects will be developed in each Town. Does this really seem right? Are Act 174 and the standards really just providing an appearance of giving municipalities more control over how our Towns are developed? How many Town’s will actually be able to do this or will they just have to rely on their Regional Planning Commissions and again cede their authority? Instead of specific outcome based language, why not allow Towns to address the issues with broader based statements? Provide some guidance on how to do that in a manner that allows the Towns a voice in renewable energy planning.

These draft standards force Towns to develop, within the Town Plan, a formal, full blown and detailed energy plan that is expected to parrot, support, or by default adopt the State’s Comprehensive Energy Plan. This is way beyond the scope and outline of a traditional Town Plan.

By not having a revised Town Plan that “appropriately” addresses renewable energy siting in place for early 2017, the PSB will continue to give the Towns little or no consideration when it comes to reviewing proposed renewable energy projects. Therefore it will be “business as usual” for the renewable energy developers and Towns will continue to be subjected to unwanted, obtrusive renewable projects. To compound the frustration, we all know that a majority of these projects are owned by out of state or even out of the country developers (who in turn sell the renewable energy credits (REC’s) out of state) and we as Vermonters are stuck with the visual impacts of projects that do not contribute to our own State goals of renewable energy or a tax base.

### **Specific comments of the draft standards**

#### **Part II**

Revising the Town Plan to get “substantial deference” at PSB hearings on renewable energy projects and siting should not be predicated on supplying detailed information on transportation needs, weatherization, overall energy use (broken down by sector and energy type), and land use patterns.

#### **Part III**

##### **Analysis and Targets –**

Town Plans are written to cover an eight year period, yet here we are being asked to project uses and outcomes out to the years 2025, 2035, and 2050. The level and degree of information requested here is way beyond the capabilities of the Town and even though this section can be met by falling back on the Regional Plan it will be extremely difficult to meet. This is not Town Plan level planning, but rather something that would be in an actual energy plan which again is way beyond our resources.

##### **Pathways:**

Section 6, a and b, contain provisions that are appropriate for a Town Plan. These sections ask for policies and statements that support responsible energy use, encourage a reduction in energy use and are reasonably attainable outcomes. Towns do not have the authority to require residents to undertake energy conservation measures, nor are residents required to report to the Town or any State agency what steps they have or have not taken to become more energy efficient. The Town Plan is most certainly the best place for promoting energy conservation. Towns can and should lead by example with results of the Town's conservation efforts and methods being reported in the various Town forums.

Once again in section 6 c, the focus has drifted away from what is reasonably attainable into the land of unknown. We question who determines what each Town's target is for renewable energy in subsection iii? How is this target determined? Once a Town achieves their "target" can it be assumed that it won't have to accept any more renewable projects? Does one Town, by virtue of its solar orientation or accessibility to necessary infrastructure, get stuck carrying an undue burden of renewables?

**Mapping:**

Under i, the maps that are being asked for represent only a brief snap shot in time, and by the time the Town Plan is fully adopted the maps are out of date.

ii) This is an incredibly detailed mapping process.

iii) "do not include an arbitrary prohibition of any particular renewable resource size or type" Who defines what is or is not arbitrary?

v) Any plan will certainly prohibit some type or scale of technology in some or possibly all locations. The concept of "one size fits all scenarios" has never worked in the past and won't in the future.

Again, thank you for the opportunity to provide these comments, we understand that the Public Service Department was assigned this task by virtue of legislation passed (Act 174) during the 2016 legislative session and therefore somewhat constrained by that. However, given the overwhelming tasks and burden placed on Towns just to have meaningful dialogue and control over how our Town is developed, we cannot support the standards as written. Instead we would support further legislative action to allow Towns broader control over the siting of renewable energy projects.

Sincerely,

  
Thomas White  
Selectboard Chair

  
Cedric Sanborn  
Planning Commission Chair





TOWN OF  
EAST MONTPELIER, VERMONT  
SELECTBOARD

Casey Northrup (2014 – 2017)  
Gene Troia (2016 – 2018)

Kim Swasey (2015 – 2017)  
Carl Etnier (2016 – 2019)

Chair, Seth Gardner (2015 – 2018)

October 18, 2016

Vermont Department of Public Service  
Jon Copans, Deputy Commissioner  
112 State Street, Room 241  
Montpelier, VT 05620

Re: Comments on the Act 174 Draft Energy Planning Standards

Dear Mr. Copans:

East Montpelier has followed the discussion of energy planning standards with interest. Our 2013 town plan has as a goal that "New energy facilities including renewable energy projects as well as transmission and distribution lines should be sited and designed to respect the character of the surrounding area and neighborhood views." An action item has been, "The Planning Commission and Selectboard should ensure that energy and transmission facilities meet the best interests of the town by reviewing and being involved in applications for a Certificate of Public Good before the Public Service Board."

We have struggled with our response to an application for a CPG for a 500 kW solar facility in a designated growth area, located on lots with onsite wastewater treatment potential – a resource that is in short supply in the East Montpelier Village growth area. We favor development of more renewable energy in town, but have problems when it interferes with orderly development of our village.

The Selectboard has considered the Rutland Resolution on siting renewable energy projects and declined to sign on to it. One of our Selectboard members attended the August 30, 2016 Forum on Regional and Municipal Energy Planning Standards in Montpelier and provided input on crafting the planning standards. We instructed our representative to the Vermont League of Cities and Towns' Annual Meeting to support Act 174's requirement that town plans receive substantial deference in Public Service Board dockets regarding renewable energy siting *only* after they have done the heavy lifting in their plans to consider what they can do to help achieve 90% renewable energy by 2050.

As a Selectboard, we have not reviewed the Draft Energy Planning Standards in detail. We are writing to thank the Department for providing a clear process for towns to follow to create town plans that help ensure that all energy facilities in town respect the character of the surrounding area and meet the best interests of the town, while showing how the town can do its part to help Vermont reach its goal of 90% renewable energy by 2050. We want to be part of the climate change solution in Vermont, and we look forward to the discussions in town as we use the finalized documents to revise our town plan.

Sincerely,



Seth Gardner  
Chair, East Montpelier Selectboard

40 KELTON ROAD  
P.O. BOX 157  
EAST MONTPELIER, VT 05651

EMAIL: [eastmontadmin@comcast.net](mailto:eastmontadmin@comcast.net)  
PHONE: (802) 223-3313 X 204  
FAX: (802) 223-4467

**From:** [Joel Cope](#)  
**To:** [PSD - Planning Standards](#)  
**Subject:** Draft Recs  
**Date:** Tuesday, September 27, 2016 2:38:30 PM

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Dear PSD

You need to take out the part that tells municipalities that their plans cannot have the effect of prohibiting any particular type or scale or size of renewable. Let's see....what might you be talking about? It looks like you don't want to be seen as protecting that controversial sacred cow wind element, knowing how municipality after municipality has voted against wind projects.

But if a town can't say wind power is not an acceptable renewable, why bother seeking substantial deference?

Please, please, please do not encourage the spread of huge industrial structures dominating and pockmarking our Vermont Countryside.

This is a home rule issue. Let communities try to meet the goals in their own way. Let them choose solar over wind. Forcing us to allow wind makes ACT 174 pointless. It is just a wind project protection plan.

If you take out those wind protection portions, towns that wanted wind could still identify it in their plans.

Joel Cope  
Brighton, VT

2 Lincoln Street  
Essex Junction, VT 05452-3154  
www.essexjunction.org



P: 802-878-6944  
F: 802-878-6946

E: admin@essexjunction.org

October 28, 2016

Department of Public Service Board  
Christopher Recchia, Commissioner  
112 State Street, Third Floor  
Montpelier, VT 05620-2601

2016 OCT 31 A 9:33

STATE OF VERMONT  
DEPT OF PUBLIC SERVICE  
MONTPELIER, VT  
05620-2601

Dear Mr. Recchia,

The Trustees of the Village of Essex Junction held a warned meeting on the 25<sup>th</sup> October and as part of the evenings Agenda recorded concerns regarding the parameters set by the Department of Public Service to develop standards and recommendations as required by Act 174.

Renewable energy is an important part of our present and future, however approval of renewable energy applications should be reviewed in the same way all applications for development are reviewed in Vermont. The Vermont Brand is compact settlements surrounded by open productive farmland. Any renewable energy proposal should fit within this metric.

It appears that the standards being considered are more akin to Performance Standards criteria related solely to renewable energy rather than taking a more holistic view of what would be best for Vermont. This would, in some ways, be the same as considering a new building on a particular site and not considering its impact on the streetscape, traffic movements, how it would set a precedence that could create unintended issues for future applications.

The first criterion, missing from the PSB's draft is, does it fit with the Vermont Brand of Compact settlements surrounded by productive Open Farmland? If not, then no other criterion should be needed, it fails the most basic, and important test and the application should be denied.

In addition the PSB, in their draft, have Conserved Land as a possible location for renewable energy installations. Such land received money from individuals, Land Trusts, companies, municipalities, residents, the state and federal coffers. The money was spent to save the land, because it was important to do so. No renewable energy should go on conserved land. If some conserved land has the ability to generate renewable energy (though existing conservation agreements) for onsite use then that should be right sized for the farm or an activity that is compatible with conserved land. They can hook into the grid, but only to share energy they can't use. For example if they need 50 kilowatts at their busy period and only 30 kilowatts at their quiet period then they can share 20 kilowatts with the grid, no more. If that is what category two

is set up to achieve then that is what it should say, not make assumptions. Anything else would drive a coach and horses through the conservation agreements and the part conserved land plays in the Vermont Brand.

These is an idea that renewable energy development is less disruptive to the land. Equipment used to ready sites for renewable energy is as heavy as that used for residential developments. Therefore soil microbes are crushed, the land is compacted, thus its ability to retain water is reduced, and stormwater runoff is increased. Yes at renewable energy sites grass can grow and animals can eat. However, the differences aren't that large in terms of soil, or indeed visual impacts. A residential PUD with open land that produced vegetables and supported animals would not be that different. Indeed, if designed well, it would look more at home in the landscape and tie into the Vermont Brand.

The discussion regarding selecting optimum sites for renewable energy is concerning; it seems to be a one dimensional look at an important issue. It is not a holistic look at what is best for Vermont. The two criterion groups that are being considered should be expanded. Developing something akin to Ian McHarg's Layer Cake method espoused in his seminal book, *Design with Nature*. This could bring the Vermont Brand into the matrix as a critical component, and hopefully the umbrella under which all other criteria should fit. The optimal site for energy production should NOT be the deciding factor.

There is no nexus yet between renewable energy and aesthetics. Someone who designs a wind turbine would find it beautifully engineered and very efficient. But does it look at home in the landscape? Over time this will change, we are not there yet.

There is no doubt that renewable energy is the way forward. However we need to take a step back and look at how we make decisions. Why can't we design a wind sculpture that has energy producing turbines, but is first and foremost a work of art? Let's make STEM, STEAM.

We should be right sizing renewable energy installations so that they produce the energy needed for the place they are in. Transmission lines are (currently) an important part of our energy infrastructure. However, do we need to hook renewable energy into them? Energy is lost in the transmission and if it's from a renewable source it's a little like putting wooden wheels on a Tesla!

There are lots of flat roofed buildings in our major settlements. We could put solar panels on them in a way that is screened (by green garden roof edges that produce flowers, and perhaps food), and have the energy collected where it is needed most and used. No transmission lines needed in this scenario.

Education for young children, not parents (old habits die hard) is a critical component of any energy policy as we move forward. As with the recycle movement children 'educate' their parents to the point that they become more energy conscious and use less. Using less is the bridge to a renewable energy future: A building designed to the highest energy standards could

be the least energy efficient building on the street if the users have the thermostat at 75 degrees and all the windows open on a subzero night. Energy conservation is not a passive activity; it is not enough to build more efficient buildings, or increase renewable resources. We also need to use less as a structural tenant of our energy future. Just because we get to a carbon free future doesn't mean we should have a laissez faire approach to energy use: Renewable energy will have a threshold as will the capacity of land to accommodate renewable infrastructure.

It would be more than ironic if we despoiled the Vermont Brand in a rush to add renewable energy to our list of achievements. We don't think the two are mutually exclusive. But, we do need to insure that when we make renewable energy decisions they are compatible with our Brand that garnered the reputation Vermont currently has. Looking back we believe we would be proud to think the way we moved our renewable energy future forward is a model for others, rather than a warning of what not to do for future generations of Vermonters.

Sincerely,



Robin Pierce  
Community Development Director

cc: Charles Baker, CCRPC, Executive Director  
Chris Roy, CCRPC, Board of Directors, Chair

To: The Vermont Department of Public Service

From: The Irasburg Planning Commission

On behalf of the Irasburg Planning Commission, we are writing in response to the public review draft of the new energy planning determination standards and recommendations issued by the Department of Public Service in response to Act 174.

Our planning commission has read the proposed new standards for municipal energy planning. Our response is one of dismay and disappointment. The proposed standards call for a level of expertise in data collection, analysis and projection that our small-town citizen planning commission cannot possibly achieve.

In Irasburg, we had looked forward to participating in local energy planning in the new environment created by Act 174. Irasburg is eager to be part of the effort to achieve a thoughtful and effective response to climate change that embodies respect for the environment, sound economics and regard for community values. Certainly, we have a keen and pressing interest in obtaining substantial deference for our town plan in Section 248 proceedings.

However, the effect, whether intentional or not, of the requirements of proposed new standards will be to exclude towns like Irasburg from the planning process and to discourage participation in effective and coordinated energy planning. The standards do not recognize the rural reality of the actual resources of small-town planning commissions. From our perspective, the standards represent yet another imposition of the heavy hand of Vermont state government imposing one-size-fits-all requirements on local citizens and municipalities.

One response might be to hire a professional engineer/planner to develop our town plan in conformance with the new standards. Unfortunately, such a solution calls for the kind of financial resources that towns like Irasburg simply don't have. Alternatively, we could leave the analysis to the Regional Planning Commission. While NVDA would surely do their best to help, the competing demands on their time and expertise and their responsibility for the entire region would leave Irasburg without a plan developed to meet the particular needs of our town's citizens.

Would it not be better to develop realistic, achievable standards that every interested municipality and citizen can participate in, rather than

devising standards that exclude from the process all but professional planners? Irasburg would like to participate in planning for local contributions to a sustainable energy future, but the proposed standards put our participation out of reach. Are we not making the best (if, indeed, the proposed standards are the best) the enemy of the good?

Given the short timeline for the development of new planning standards and the Department's apparent distance from the real-life concerns of Vermont citizens and towns, we have scant hope for a substantive response to our concerns. However, we want to make clear that Irasburg would welcome the opportunity to join in the process of energy planning. The Department of Public Service should put our participation within reach.

Irasburg Planning Commission  
Michael Sanville, chair  
Judith Jackson, clerk

Irasburg Selectboard  
David Warner, chair  
Brian Sanville

[judithjackson@gmail.com](mailto:judithjackson@gmail.com)  
802-754-9968

Dear Department of Public Service,

I offer the following comments on the Draft Determination Standards for Energy Compliance. Thank you for the opportunity to provide input to this important process.

Respectfully,

Matthew Burke

Charlotte, VT

October 20, 2016

1. Draft Standards Part II: Enhanced Energy Element Checklist

*Please review and attach the plan including the energy chapter (or amendment, or supporting plan), and indicate whether it contains the following statutory requirements. If the requirement is not met, the checklist must satisfactorily explain and justify why it does not. (p. 2)*

Please explain or reconsider what it means to “satisfactorily explain and justify” a failure to meet a requirement. This language appears to imply that a municipality can indeed sufficiently or satisfactorily justify or explain why a statutory requirement is not met. Yet it would seem that a statutory requirement is by definition required and cannot be explained or justified away. Regardless of explanation or justification offered, wouldn’t this failure to meet the requirement by definition prevent an affirmative determination of compliance? If this section is to serve as a rubric, the consequences of not meeting requirements must be clearly stated, and the specific characteristics of a satisfactory explanation for failing to meet requirements must also be clearly stated (i.e. the basis for determining what is satisfactory). Logically, however, this language does not meet the basic intent of a statutory requirement, meaning an element that must be included without exception to receive an affirmative determination of energy compliance.

2. Draft Standards Part III: Determination Standards Checklist

*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) etc. (p. 4)*

The basic goal and benchmarks for achieving 90% by 2050 also must be included in this list of state goals and policies.



### 3. Draft Standards Part III: Determination Standards Checklist

*If you feel a standard is not relevant or attainable, please check n/a and use the Notes column to describe the situation, explaining why the standard is not relevant or attainable, and indicate what measures the region or municipality is taking instead to mitigate any adverse effects of not making substantial progress toward this standard. (p. 4)*

As this information is critical to actually achieving goals, a more direct and specific approach for reporting is needed rather than the small area offered in the notes section. It should be made clear that the minimum expectation is that all standards will be met or exceeded in order to receive an affirmative determination of energy compliance. In the rare case when a municipality deems a standard not relevant or attainable, some guidance ought to be offered as to what might legitimately qualify as not relevant or attainable, and what would not qualify. Also, instead of asking to indicate what measures are to be taken to mitigate adverse effects of not making progress, the municipality or region should rather be required to indicate how a variance from the standard will not affect the ability for the state to achieve its goals, or some language similar to that for Pathways: “If an action is not selected, an explanation of how the plan alternatively achieves attainment of the targets should be included” (p. 7).

### 4. Analysis and Targets

*2. Does the plan establish 2025, 2035, and 2050 targets for energy conservation, efficiency, fuel-switching, and use of renewable energy for transportation, heating, and electricity? (p. 6)*

The greenhouse gas reduction goals and targets must also be established in the plan to be consistent with state goals and policies. Also, the benchmark years stated here are not themselves consistent. For example, there are state targets for 2020 and 2028 as indicated above. An improved approach to help municipalities and regions to consistently track and achieve these goals would be to require for plans to establish regular benchmarks of at least every five years and ideally annually. The state goals and policies must serve as the high-level targets, whereas the municipal and regional targets must be implemented at a much finer granularity. Five-year benchmarks for all targets beginning by 2020 should be the minimum. Same comment applies to #2-5 and various sections under Pathways.

### 5. Pathways

*6. a. Efficiency (Regions and Municipalities) (p. 7)*

This section should explicitly include conservation and demand reduction as well as efficiency.

*6. c. Generation (Regions and Municipalities) (p. 10)*

This section should also include an additional component similar to the following: Identify contingencies to be taken for achieving generation targets (such as municipal generation, community cooperatives, purchase of in-state RECs) in the case that insufficient renewable energy development has been deployed by a benchmark year. This is critical because we cannot assume that for-profit developers will deploy sufficient generating capacity to achieve the state goals. This planning process is a heavy lift yet ultimately does not at all guarantee that emissions will be reduced or renewable generation will be deployed. Plans must therefore be required to develop contingencies in the case that targets are not met through private development alone. Plans must further describe how contingencies will be implemented upon the first indication of failure to achieve a target in any given benchmark year.

6. Mapping

*Plans are expected to include maps that address all of the standards below, unless a compelling reason is provided why the standard is not applicable or relevant (if N/A is checked). (p. 12).*

With respect to the determination of a compelling reason and the consequences for not meeting the standard, please see comment #1.

7. Additional comments

Several components appear to be lacking in the current draft standards:

- a. Of greatest concern is the lack of specific requirements to measure and track emission targets. Affirmative determination must be based on the identification of targets and pathways for achieving greenhouse gas reduction goals.
- b. Similarly, emissions will not be reliably reduced without identifying and reducing fossil fuel imports. Plans should be required to identify all known sources of fossil fuel imports to the region/municipality and establish targets and pathways for reducing these imports to roughly 10% of total energy use by 2050.
- c. There should be a requirement to include an estimated comparison of the resource potential identified within the region/municipal plan to the state goal for 90% renewables and 75% greenhouse gas reduction goals by 2050. The plan must indicate further whether these goals are attainable using only preferred locations or whether they would additionally require known or potential constraints. In other words, the plan must indicate whether the resource potential of the region/municipality is sufficient to meet the goals, and through which locations.

- d. The draft standards should explain clearly that these are minimum standards and the region/municipality is strongly encouraged to exceed these minimum standards. The draft should allow for explanations of how plans *meet or exceed* standards.
- e. The draft standards should explain that these standards are subject to change through future revisions to statutory requirements.
- f. As a rubric, it is not clear how, why and according to whom the checking of the N/A boxes would suffice, nor what are the consequences if they are not deemed sufficiently justified, relevant, etc. To avoid confusion, strike all language such as “unless N/A is available and checked” and instead create an entirely separate form and procedure that must be followed in the case that a region/municipality would like to seek a variance from the standards. As stated in comment #3 above, the municipality or region should be required to indicate how a variance from the standard will not affect the ability for the state to achieve its goals.
- g. Additional language should be added at the beginning and the end of the standards stating that all standards must be met (all yes boxes checked) in order to attain affirmative determination of energy compliance, period, full stop. If the region/municipality elects to seek a variance, this process must be addressed separately as noted in 7.d.
- h. Progress must also be tracked over time and targets met in order to retain affirmative determination once attained initially. Plans must include a system for monitoring and reporting progress and contingencies in the case that targets are not met. Further, the standards should also allow for the affirmative determination to be revoked in the case that targets are not met in any given 5-year benchmark.
- i. Plans should be required to include a public tracking and communication system to allow for clear, transparent and frequent monitoring and reporting toward goals, comparison to other plans, and accountability of those responsible for planning and implementation.
- j. Plans should be required to state any known or anticipated limitations in capacity for energy planning at the municipal level.

October 20, 2016

Dear Vermont Public Service Department,

Thank you for the opportunity to review and provide input on the draft standards of Act 174's enhanced energy planning provision. We understand and appreciate that a great deal of work has gone into crafting standards that provide flexibility for Vermont's diverse regions and municipalities, while also creating an appropriately comprehensive approach for them to consider and outline their plans for helping to meet Vermont's energy goals and energy needs for heating, transportation and electricity.

We offer the following comments and suggestions to help do two things: One, to refine the standards so that they advance sound energy planning, and two, provide clarity to both applicants and reviewers.

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***1. We seek clarification about which standards are mandatory, and propose that certain standards be required in order to receive an affirmative determination of energy compliance.***

The standards checklist is set up with "yes," "no," and (sometimes) "N/A" check boxes for each standard, but it is not clear which standards (or combination of standards) must be checked "yes" in order to receive the determination. Clarifying this would help applicants and reviewers understand the expectation as well as ensure that sufficient, multi-pronged strategies are used and that there is not too much reliance on limited approaches that might, even cumulatively, fall short of achieving the goals.

*Suggestions:* We suggest that certain standards be mandatory, and that they be marked with an "\*". In our review of the standards, we identified several that we think should be mandatory for receiving an affirmative determination of energy compliance. We have attached a list of the standards we believe should be mandatory as Appendix A to these comments.

While it makes sense for communities of different sizes to take different approaches, and there should remain room for this, we also feel it's very important to identify some standards as basic, threshold standards that must be achieved. Without doing this, it will be harder for both applicants and reviewers to know what combination of efforts will adequately demonstrate that a community is supporting Vermont's energy goals.

***2. We suggest that the "Analysis and Targets" section better emphasize what data will be available to municipalities if/when their regional planning commissions have completed their energy plans.***

Data about energy use, conservation targets, and efficiency targets provide the basis for conclusions about how much renewable energy needs to be developed. Though the level of data requested in the “Analysis and Targets” section seems appropriate to us, we also understand that it might seem daunting to some. Though the regional plans are mentioned in the section overview, it could help municipalities if it was made clearer *which* data is available from regional planning commissions.

*Suggestion:* To make it easier for municipalities to build from their region’s work, use formatting to indicate which of the “Analysis and Targets” standards can likely be met using data from completed regional plans – for example, by shading those rows in light grey. In addition, consider discussing, in the guidance, available data sources other than RPCs.

***3. We agree with providing a range of ways for communities to meet the standards, but are concerned that the level of flexibility currently included could leave important strategies on the table.***

The revised draft allows for standards to be met in multiple ways, which responds to feedback from towns of varying sizes. We appreciate this responsiveness, yet wonder whether this removed some needed specificity and accountability. For example, if a municipality’s only effort to “encourage reduced energy use by individuals” is education, is that enough to move the needle on this area of conservation? Or, if a municipality or region proposes to rely primarily on one or two strategies to “promote decreased use of fossil fuels,” such as chunk wood or advanced wood heating systems, they may fall short of their goals for reasons out of their control – for example, if pellets become extremely expensive/limited in supply.

*Suggestion:* We suggest that plans should be encouraged to promote as diverse a portfolio of approaches as possible in each sector and, if they choose not to do so, to include an explanation as to why.

***4. Ensuring sufficient “areas appropriate for generation” in each community will need to involve a robust, thoughtful planning process – including the identification, through the local planning process, of those areas considered unsuitable for development of renewable energy.***

The planning process will yield the approximate amount of land needed for different renewable energy technologies in each region and community. The mapping process will identify areas that are “no build” areas (either because of known constraints or because they’ve been identified as unsuitable from a local perspective due to ecological sensitivity or other considerations); there will also be “locally preferred” areas. The standards acknowledge that some of that land may not be available due to “private property constraints, site-specific constraints or grid-related constraints.” With this in mind, we understand that the remaining land will need to be “sufficient” to develop enough renewable energy for that community.

We understand that towns and regions will go through the process of identifying areas that they consider unsuitable for energy generation by following standards or guidance for the identification of these areas. We assume that when areas are identified as unsuitable for development, appropriate explanation will be included articulating the basis and reasons for prohibiting development.

Ultimately, we acknowledge that it is difficult to identify the exact, “right” amount of suitable land for energy development. We support a municipality’s option to follow a clear process that designates certain areas as “unsuitable.” We recognize that it will be necessary that plan review ensures that

comprehensive energy goals can be met. Our suggestion is to make sure that the amount of “unsuitable” land identified does not unduly constrict availability of land to meet renewable energy goals. In addition to careful identification of these lands, this may require identifying a surplus percentage of land – including land that is likely to be viable for project development.

Another benefit of this careful planning process could be to avoid limitations that could artificially skew the market, driving up costs and taking potentially viable sites off the table. Furthermore, each town’s available land will need to be considered within a regional context: for example, considering how the presence of regionally significant natural resources in a municipality should be balanced with the ability of other municipalities in the region to meet (or exceed) renewable energy goals.

*Suggestion:* The standards on pp. 15-16 of the draft, regarding the identification of “areas unsuitable for generation,” should require a “yes” answer for those areas to be deemed “no build” areas – there should not be an “N/A” option for these standards. In addition, we suggest, for item (iii)(b) on p. 16, that the types of “data” be described in more detail, perhaps in the guidance. For example, “data” may include numbers, but also local natural resources inventories undertaken by resource professionals, viewshed studies, or other documents.

*Suggestion:* We think it’s important to be even more explicit, on pp. 15-16 (iii)(a), that if areas are considered unsuitable for energy generation, that plan policies prohibit other types of development as well, within the limits of our land use planning statutes, so as to not discriminate against renewables, while allowing other types of development that could have similar impacts.

*Suggestion:* We also suggest that when evaluating whether there is “sufficient” land, that reviewers consider whether the location of the available and “no build” parcels relative to one another creates any patterns that would unreasonably distort the availability of certain parcels (and the market).

*Suggestion:* Guidance should include information about how regional review of municipal plans can ensure that any prohibitions on energy development in one town, if applied throughout the region, would not preclude development of that technology throughout the region.

***5. We encourage the Department to work on procedures that ensure that local and regional plan maps will be referenced during the review of projects at the Public Service Board.***

As written, the standards give the policy language precedence over local and regional plan maps, including those that address suitable locations for renewable energy siting; we understand that the reason for this is to help regions and municipalities to be more explicit with their policies, and not to only rely on maps to identify where energy siting should occur in a municipality. We believe that maps are important because they convey a community’s vision for how policies will play out on the landscape. In considering whether an energy project is suitable in a particular location, it is very important to look at how the project relates to other locations and constraints

within the community. A map often represents these relationships more clearly than written policies. As has been demonstrated in Vermont Superior Court cases regarding Criterion 10 of Act 250, policies considered in a vacuum may be only partially interpreted.

***6. We suggest that the guidance include clearer definitions related to biomass.***

We are pleased to see modern wood heating systems, including thermal-led biomass, identified and encouraged as part of reducing carbon emissions from energy generation in Vermont. To ensure that efficient biomass is being developed, we request further definition of what “advanced” or “clean” biomass include – perhaps building on the evolving standards the Vermont Clean Energy Development Fund uses to promote advanced wood heating. The CEDF denotes advanced wood heating as: 1) utilize(ing) highly efficient combustion technology, 2) produc(ing) low levels of emissions, 3) support(ing) healthy forest ecosystems, and 4) consum(ing) local wood. The CEDF notes in its annual program plan and budget that for the CEDF to “meet its goals it is imperative that all four of these conditions of modern wood heating are built into program designs.”

***7. Consideration of land use policies is an essential piece that we are pleased to see included, and we suggest some changes.***

On p. 9, in standards 6(b)(v) and 6(b)(vi), we appreciate that land use is addressed - and in particular the choice to address sprawl prevention and planning for compact development as separate standards, since both strategies need to be pursued to reduce our energy use.

*Suggestion:* Standard (v), regarding about reducing sprawl, suggests that having a designation program in place can be accepted as evidence of working to reduce sprawl. While designation programs have been very successful at promoting compact development, few evaluate during the designation process whether communities have also made efforts to reduce sprawl in outlying areas. For this reason, we strongly suggest that having a state designation *not* be accepted as evidence of sprawl reduction efforts. It could, however, be evidence in standard (vi), because it *is* evidence of prioritizing development in compact, mixed-use centers. In (v), you could insert other examples of sprawl reduction efforts: for example, presence of a limited sewer service area, 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), requirements that development in those areas be connected by means other than roads and cars, etc.

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VNRC thanks the Public Service Department for the opportunity to provide input to the draft standards. These standards will serve as an important foundation for regions and municipalities to outline how they will contribute to Vermont’s clean energy and climate change goals. The reality is that, as a nation and as a world, we are moving away from baseload power sources and towards more distributed, renewable energy generation to power our societies. How this transition happens, however, matters a lot; with real potential, cost, community, natural resource

and other considerations to balance. While Vermont will continue to rely on regional sources of power in this energy transformation, we will also need to generate far more energy in-state.

This Act 174 process, which supports enhanced and comprehensive energy planning, is important. It will likely take time and be an iterative process, but it is our hope that communities and regions will use this new planning framework. We are optimistic that with proactive public participation and thoughtful planning, regions and municipalities can better focus their efforts and identify their preferred approaches to how this energy transition happens while also recognizing and responding to the realities of grid management, cost containment and the imperative of moving as swiftly as possible to get off of fossil fuels.

We look forward to working with the PSD, regional planning commissions and communities as this process evolves, as well as to helping to ensure its success by making the value for this effort easy, compelling and clear to communities and, ultimately, resulting in good, comprehensive plans.

Sincerely,

A handwritten signature in black ink, appearing to read "B. Shupe". The signature is fluid and cursive, with a large initial "B" and a stylized "Shupe".

Brian Shupe, FAICP  
Executive Director  
Vermont Natural Resources Council



## Appendix A

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“Non-negotiables” are those standards that we think should require a “yes” – i.e., a “no” means that the plan will not receive determination. These would also not have “N/A” as an option. The standards identified below should be achievable by communities at all scales in some way.

- p. 6, item 4 – “Does the plan analyze (estimate) changes in transportation system energy usage...” The requirement in Section 9 of Act 174 is for an “analysis of transportation system changes and land use strategies needed to achieve these targets.” However, sub-point (a) has “N/A” as an option. These should be required “yes” standards, particularly since the standard is simply to “consider the impact of land use patterns on transportation system energy use.” “Consideration” can be done at any scale, and giving consideration to land use is essential within the energy planning process. Even if the conclusion is, “We are a rural community with a low population density and no historic center,” that informs the land use and transportation strategies that will be appropriate for reducing transportation energy use. Communities at any scale should be able to do this.
- p. 7, 6(a)(i) – “Encourage reduced energy use by individuals...”
- p. 7, 6(a)(ii) – “Promote decreased use of fossil fuels for heating...”
- p. 8, 6(a)(iii) – “Promote efficient buildings.”
- p. 9, 6(b)(ii) – “Promote a shift away from single-occupancy vehicle trips...”
- p. 9, 6(b)(iii) – “Promote a shift away gas/diesel vehicles...”
- p. 9, 6(b)(iv) – “Facilitate the development of walking and biking...” (Could also reference an adopted Complete Streets Policy as a way to provide evidence of this.)
- p. 9, 6(b)(v) – “Include land use policies (and purposes statements for land use districts where applicable) that demonstrate a commitment to reducing sprawl...”
- p. 10, 6(b)(vi) – “Strongly prioritize development in compact, mixed-use centers...”
- p. 10, 6(c)(i) – “Identify existing electric generators...”
- p. 10, 6(c)(ii) – “Analyze generation potential...”
- p. 10, 6(c)(iii) – “Compare generation potential with the analysis of generation needed...”
- p. 12, (i) – “Does the plan identify and map existing electric generation...”
- p. 12, (ii)(a) – “Base resource analysis”
- p. 12, (ii)(d) – “Known constraints”
- p. 13, (ii)(e) – “Potential constraints”
- p. 15, (ii)(f) – “Transmission and distribution resources”
- p. 15, (iii)(a) – “Are areas identified as unsuitable...” – Should require an affirmative “yes” if communities decide to identify these areas, but identifying unsuitable areas should not be a requirement.”
- p. 16, (iii)(b) – “Does the plan ensure that any regional or local constraints...”

October 20, 2016

Department of Public Service  
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[PSD.PlanningStandards@vermont.gov](mailto:PSD.PlanningStandards@vermont.gov)

## **VPIRG Comments on Draft Act 174 Determination Standards**

Thank you for the opportunity to provide comments on the draft Determination Standards issued September 26, 2016. Overall, VPIRG thanks the Department for their thoughtful and comprehensive draft. These standards are clearly consistent with the requirements of Act 174 and provide a thorough rubric for Regional Planning Commissions (RPCs) and municipalities who are working to achieve a Determination of Energy Compliance. Below, we offer a few comments that we hope will add additional clarity to the standards for regions and municipalities to understand the requirements for being granted Determination.

### **1. Additional Clarity for RPCs and the Department of Public Service on How to Approve or Deny Plans**

1. Some of the standards include the option of N/A, which we agree is appropriate for some municipalities that do not have the option of meeting that standard. However, it is unclear whether N/A is an option when it is not listed. We recommend providing additional guidance about when it is or is not appropriate to check N/A.
2. All of the standards include the option of saying “No” – including numerous options where the section description implies or states that all listed standards within a section must be met. This could cause confusion for planners attempting to meet these standards. We agree it makes sense for standards to require additional explanation if “No” is selected, we suggest the Department clarify when “No” is and is not an option.

### **2. Definitions of Key Terms and Consistency Throughout the Document**

There are many important terms used throughout the Standards that have already been defined in statute (including types of energy generation, types of heating, and area identifications). We recommend that these definitions are included in the Standards document or an appendix for additional clarity, and that terms not defined in statute around which there could be confusion also have definitions written by the Department included. In addition, we recommend that once defined, the term is used consistently throughout the document.

### **3. Specific Changes to Increase Clarity**

The following are specific wording changes we recommend:

- On pg 11, item iv.: the identification of sufficient land. We recommend changing “some” to “most” or “much” to acknowledge the reality that a large portion of the identified land may not be available given constraints including property ownership and grid availability.
- On pg 11, item vii.: on preferred location. We recommend directly cross-referencing to letter h. on pg. 15 and using the same language to ensure a consistent definition of preferred locations.

- On pg. 11, item vi.: on policy statements for the maps. We recommend cross referencing in this section all of the relevant mapping sections, to clarify that these policy statements cover the mapping requirements in pg. 12-15 item ii. (b-e, g-h) and pg. 15-16 item iii. (a-b).
- On pg. 11, item vi.: on policy statements for the maps. Given that the mapping standards are required for towns and regions, and that the standards indicate that where the maps and the policy statements disagree, the policy statement shall be followed, we recommend removing the "N/A" option from this item.
- On pg 16, item b.: on constraints. We recommend adding the following bolded text: "Does the plan ensure that any regional or local constraints identified are supported through data, are consistent with the remainder of the plan, and do not include an arbitrary prohibition of **or interference with the intended function of** any particular resource size or type."



64 Peg Shop Road  
Keene, NH 03431  
dns@dcmllogic.com

October 19, 2016

Mr. Jon Copans  
Deputy Commissioner  
Department of Public Service

Dear Mr. Copans,

DCM Logic is a Keene, NH company specializing in controls and monitoring for biomass boilers. We are currently monitoring over 70 biomass boilers in over 40 boiler plants throughout Vermont, New Hampshire and other states.

This experience has given us numerous insights into the function and performance of biomass boilers, which comprise a key portion of the 2016 Vermont Comprehensive Energy Plan (CEP). Following please find our suggested amendments to portions of the Draft CEP that apply to municipalities and regions.

Respectfully submitted,

A handwritten signature in blue ink, reading "David N. Spindler", is positioned above the printed name and title.

David N. Spindler  
COO

## DCM Logic Comments on “Recommendations from the 2016 Vermont Comprehensive Energy Plan”

(Recommendations relevant to regional planning commissions and municipalities excerpted from the Plan)

Page 5: (this and following page numbers refer to the document accessed at [http://publicservice.vermont.gov/sites/dps/files/documents/Pubs\\_Plans\\_Reports/Act\\_174/CEP%20Recommendations.pdf](http://publicservice.vermont.gov/sites/dps/files/documents/Pubs_Plans_Reports/Act_174/CEP%20Recommendations.pdf))

1.

Original language: “Advancing installation technology.”

Comment: It’s not clear what should be advanced, or to what end. The fundamental goal of a hydronic or steam heating appliance is to consistently provide the correct temperature/pressure. Improving how consistently this is achieved should be a stated goal, as there is currently considerable diversity in existing installations.

Recommendation: Change the existing language to read “. . . advancing installation technology, specifically its capability to consistently provide the correct temperature of water or correct pressure of steam . . .”

2.

Original language: “Cost-effective use of technology”

Comment: Presumably a prerequisite for consideration of cost-effectiveness is that the technology adequately perform its most basic function. DCM Logic’s sampling of boiler plant performance during the 2014-2015 and 2015-2016 heating seasons (total of 50 data points) shows that only about 20% of these plants met temperature over 80% of more of the time periods when there was a call for heat. One could conceivably debate the cost-effectiveness of the bottom 80%, but given their subpar performance, cost becomes a secondary consideration.

Recommendation: Change the existing language to read: “. . . efficient, clean, effective, and affordable use of technology . . .”

Page 6:

3.

[new language]

Recommendation: After the sentence “Promote the expanded use of advanced wood heating . . .” add the new sentence “Boilers should consistently provide the specified temperature of water or pressure of steam.”

4.

[new bullet point]

Comment: See Comment to #2 above. Public and private investors, heating appliance manufacturers, distributors, installers, engineers, boiler operators, and even potential biomass heating plant owners should all have an opportunity to understand how consistently heating appliances in a given project are meeting specified temperature/pressure.

Recommendation: Add the following bullet point—“To enhance the biomass community’s understanding of how consistently a biomass heating plant meets its temperature or pressure goals, all commercial-scale projects that receive some public funding should track this performance using a metric approved by VT CEDF.”

5.

Original language: “. . .expansion of ‘best in class’ advanced wood heating equipment that is clean, efficient, and cost effective. . .”

Comment: Overuse of “best in class” and failure to define in what way a system is “best” or even what constitutes a “class” have made the phrase a meaningless buzzword. Surprisingly, there is no emphasis in this sentence on using equipment that does its job, which for boilers is consistently meeting temperature/pressure.

Recommendation: Amend the phrase to read as follows: “. . . expansion of advanced wood heating equipment that is clean, efficient, cost effective, and consistently meets temperature . . .”

Page 10

6.

Original language: "... new, modern, clean wood product-burning heating systems .  
.."

Comment: Again, there is no mention of using wood heating systems that consistently do their job.

Recommendation: Amend the phrase to read as follows: "... new, modern, clean wood product-burning heating systems that consistently meet temperature ..."