



# CHITTENDEN COUNTY RPC

*Communities Planning Together*

## CCRPC Long Range Planning Energy Sub -Committee

### ~~Draft~~ Revised Meeting Summary

**Tuesday, January 31, 2017**

#### **Attendees:**

Irene Wrenner, Town of Essex  
Robin Pierce, Essex Junction  
Catherine McMains, Chair, Jericho  
Matt Burke, Charlotte  
Keith Epstein, South Burlington  
Jeff Forward, Richmond  
Karen Purinton, Colchester  
Sharon Murray, Bolton

#### **Staff:**

Eleni Churchill, Transportation Program Manager  
Marshall Distel, Staff Planner  
Regina Mahony, Planning Program Manager  
Melanie Needle, Senior Planner  
Emily Nosse-Leirer, Staff Planner

#### **1. Review Minutes from the December 20, 2016 meeting**

Jeff Forward motioned and Karen seconded. The minutes were accepted with some name spelling corrections.

#### **2. Review Regional Energy Plan Schedule\* (5 minutes)**

Melanie Needle discussed the schedule for the plan going forward, noting that there has been a significant delay in data analysis due to the raw data being unavailable from the State.

Jeff Forward asked how the committee intended to function on making key decisions in the future—if there are disagreements, is this a majority vote system or a process of working towards consensus? When the plan is done, how will the committee “approve” it? Melanie explained that this group is a subcommittee of the Long-Range Planning Committee, and the Energy Subcommittee will reach consensus on this document to the greatest degree possible, recommend it to the Long Range Planning

Committee and then the LRPC will recommend it to the Board, which will vote on it. Jeff reiterated that he feels strongly that the committee be able to have a serious discussion about the maps and generation allocations.

Sharon Murray asked how this plan will be incorporated into the ECOS plan, and Regina Mahony explained that the best way to do this will likely be to include the analysis as part of Chapter 4 in the ECOS Plan and to include relevant policies in Chapter 2 and 3.

Matt asked for clarification on the Energy Planning Training that will be held on May 11, 2017, and what its purpose is. Melanie explained that the training will present the full draft of the plan and that the training is late in the process to ensure that all local-level data will be available from VEIC. Keith Epstein asked who will be doing the training from VEIC, and Melanie said she would provide that information.

### **3. Act 174 Technical Assistance Project + VEIC Transportation Energy Project Update**

Melanie mentioned that CCRPC staff will be working with several municipalities to provide technical assistance to help them comply with Act 174. General technical assistance will be breaking out the baseline energy data and targets by town, and a deeper level of analysis will be conducted for Shelburne, Colchester, and Winooski. [The Act 174 training funding is only sufficient to cover the assistance for three towns. When we polled the communities through the Planning Advisory Committee these are three towns that expressed interest as they are starting an update to their town plans. However, for other municipalities,](#) Northwest RPC will prepare a compendium of best practices from all the regions (ex: sections, maps and pathways) as a useful resource. [This will be made available to all towns, especially those that were not able to take advantage of the Act 174 technical assistance.](#) -

[Vermont Energy Investment Corp. \(VEIC\)](#) will run 2 scenarios ~~using the Long-range Energy Alternative Planning (LEAP) tool to model changes in mode shifting and the Metropolitan Transportation Plan projects (mode shifting and MTP).~~ These two scenarios will allow for a better level of analysis to examine transportation energy use between now and 2050. The scenarios will incorporate the use of the population forecasts that are being developed for the regional plan, bringing important consistency to the analysis in the plan. VEIC will also analyze preferred scenarios from the MTP to see if those scenarios will get the region to 90% renewables by 2050. VEIC will also revise the natural gas use projections to make them more realistic compared to what Vermont Gas is planning.

### **4. Regional Solar + Wind Targets, Solar Town Targets, Draft County Maps\*, Update on Local Constraint Mapping Process \*(40 minutes)**

Melanie explained that new statewide energy resource data and our regional targets was made available to us on 1/17. Those data were used to develop the draft solar [targets](#) at the municipal level for [all towns \(see table below\)](#). [CCRPC staff determined the solar targets for each town by averaging each town's share of the county's population with each town's share of the "prime" resources.](#) [Melanie was only able to process the local constraints for ~~three test towns~~: Colchester, Jericho and Essex to determine if the local constraints prevent a town from meeting their estimated target.](#) -

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Determining the division of generation between municipalities was done by averaging each town's share of the county's population with each town's share of the "prime" resources.

Town Name (bold means local constraint received)	Population		Prime Solar										Local Known Constraints on Prime	Local Possible Constraints on Prime Solar (TDI)	Preferred Area	Prime Solar - Local Constraints	Accommodate Constraints
	Population	County Share	Prime Solar (acres)	Prime Solar Resource Share	Average Pop + Resource Share	Low Range Solar MW	High Range Solar MW	Low Range Prime Target (Acres)	High Range Prime Target (Acres)	Local Known Constraints on Prime	Local Possible Constraints on Prime Solar (TDI)	Preferred Area					
Buel's gore	39	0%	9	0%	0%	0	0	1	1								
St. George	764	0%	63	1%	0%	1	1	7	12								
<b>Bolton</b>	1,236	1%	197	2%	1%	2	4	17	29		14.46				182		
Huntington	1,875	1%	411	3%	2%	4	7	33	54								
<b>Winooski</b>	<b>7,223</b>	<b>5%</b>	<b>157</b>	<b>1%</b>	<b>3%</b>	<b>5</b>	<b>9</b>	<b>43</b>	<b>70</b>								
Richmond	4,115	3%	556	4%	4%	7	11	52	86								
Essex Junction	9,709	6%	168	1%	4%	7	11	55	91								
<b>Underhill</b>	3,061	2%	924	7%	5%	9	14	69	113								
<b>Shelburne</b>	7,566	5%	583	5%	5%	9	14	70	114								
<b>Westford</b>	2,013	1%	1,069	9%	5%	9	15	73	119								
<b>Jericho</b>	5,043	3%	918	7%	5%	10	16	78	128	211					707	YES	
Charlotte	3,822	2%	1,051	8%	5%	10	16	80	131								
Williston	9,054	6%	1,011	8%	7%	13	21	102	167								
<b>Milton</b>	10,610	7%	961	8%	7%	13	22	107	175								
<b>South Burlington</b>	18,536	12%	339	3%	7%	13	22	107	175								
<b>Hinesburg</b>	4,472	3%	1,539	12%	8%	14	23	112	184								
<b>Essex Town</b>	10,710	7%	1,196	10%	8%	15	25	121	198	20,520			13.23	(9,810)	NO		
<b>Colchester</b>	17,293	11%	836	7%	9%	16	27	131	213	479	7,613			357	YES		
<b>Burlington</b>	42,570	27%	585	5%	16%	29	48	234	382								
<b>Total</b>	<b>159,711</b>		<b>12,573</b>	<b>100%</b>	<b>100%</b>	<b>187</b>	<b>305</b>	<b>1,494</b>	<b>2,443</b>								
<b>Totals provided by DPS/BCRPC</b>			<b>12,578*</b>			<b>186.8</b>	<b>305.4</b>		<b>2,443</b>								

Jeff asked whether issues such as 3-phase power availability was analyzed in these maps, and Melanie said that because these have been based on state analysis, it was not analyzed here but could be in the future.

Keith mentioned that he thought the figure of 1 MW per 8 acres was too small, and thought it was closer to 1 MW per 3-5 acres. Melanie mentioned that 1 MW per 8 acres is based on Northwest's calculations, and that she would look into different estimate styles. [After the meeting Keith followed up with a response saying that "the 8 acres per MW is in fact a good estimate" and he provided a reference: <http://segroup.com/projects/ferrisburgh-solar-farm/>](#)

Sharon mentioned that the siting committee analysis may be useful.

Keith wanted to know whether renewable energy potential on rooftops and other impervious surfaces is analyzed here, and Melanie said it was not. The committee wants to see that analysis done here so that the plan can explain why it is impossible or not to meet the energy goals with rooftop solar only.

Melanie reiterated that existing wind and solar are based on where projects are sited, but does not consider where the electricity is used or where the RECs are sold. She will confirm that the existing capacity reported includes all types of projects, including net metered.

Keith mentioned that the capacity factor varies extremely in wind generation depending on location, and so the target should be measured by energy (KWh) rather than power (KW).

Melanie used the state methodology of averaging town share of population with town share of prime energy resource to develop a municipal generation target [\(see above table\)](#).

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Jeff asked that in the future, it be reported what percentage of its goal each municipality is meeting.

The committee was concerned about this methodology, because the land mass of a municipality has nothing to do with its energy needs. However, the committee also agreed that to develop a methodology to weight things appropriately would be a difficult task.

Robin Pierce made the point that the raw numbers do not show the relative value of different parcels of “prime solar” land. Regina Mahony said that these tables are intended to be viewed with the maps, which do “prioritize” different areas.

Committee members agreed that instead of the just averaging the population and solar/wind resource, [electricity](#) consumption should be added as well [to account for towns that have higher energy demands](#). It could also be interesting to look at areas available within 1 mile of 3-phase power by town, or substation capacity if possible.

Melanie concluded by warning that not all towns will be able to meet their targets given the level of constraints that some towns proposed, and wanted to know the committee’s opinion. Talking to the towns is a best first move, but it’s important to look at all factors, and this is an issue that will need more discussion in the future.

#### 5. **Review of draft Regional Energy Plan Strategies**

Emily Nosse-Leirer reviewed the regional energy plan draft strategies with the Committee to identify what should be maintained, edited, and to identify any missing language.

The Committee’s discussion began with the suggested strategies that meet Act 174’s energy compliance standard 6A. Matt Burke explained his suggestion for a strategy that enables aggregated procurement of renewable energy supplies. He told the Committee that this is an example implemented in California and will look into this in more detail for Vermont.

The Committee had a lengthy discussion on the energy retrofit time of sale ordinance and its relevance to the Regional Plan. More clarity is needed to understand how town plans would be reviewed in light of the new enhanced energy plan requirements. Staff does not want to make the bar so high that towns can’t achieve a positive determination and recognizes that a balance needs to be struck.

Robin Pierce expanded the suggested strategy of developing a property owner and user conservation manual. He explained that this it could be a document that tells someone how to operate a home with energy efficiency in mind.

Jeff Forward suggested that “Provide financial incentives for energy efficiency” be replaced with “encourage an uptake of incentives for energy efficiency.” Keith Epstein introduced the idea of an Energy Service Company (ESCO) and wondered if one strategy could be CCRPC facilitating an ESCO contract to introduce opportunities for building energy efficiency. Sharon Murray added that this

aligns with town's ability to enter into inter municipal agreements with RPCs. McMains offered that the Jericho Energy Task Force is working on being a clearing house for the financial incentives available for residents to make their homes more efficient.

**6. Next Meeting February 21<sup>st</sup>, 2017**