

1 CHITTENDEN COUNTY REGIONAL PLANNING COMMISSION
2 ENERGY SUB-COMMITTEE - MINUTES
3

4 DATE: Monday, July 10, 2023
5 TIME: 6:00 p.m. to 8:00 p.m.
6 PLACE: Virtual Meeting via Zoom with link as published on the agenda
7

Members Present:

Daniel Parkins, Essex
Keith Epstein, South Burlington
Kevin Thorley, Williston

Staff:

Taylor Newton, Planning Program Manager
Melanie Needle, Senior Planner
Darren Schibler, Senior Planner
Eleni Churchill, Transportation Program Manager

8 **1. Welcome and Introductions**

9 M. Needle welcomed everyone at 6:06pm and asked members and staff to introduce themselves.

10 **2. Approve May 25, 2023 Minutes**

11 Approval of minutes was deferred to future meeting due to lack of quorum.

12 **3. Renewable Energy Generation Targets**

13 D. Schibler gave an overview of how supplement 6 was organized in the updated plan. He explained that equity is a
14 new standard and we relied on the Just Transitions framework to discuss energy affordability and access. D. Schibler
15 explained the target methodology came from the methodology provided by the Department of Public Service (PSD).
16 He shared that the State gave us an assumption of 50% of in state generation. D. Schibler also reviewed the past
17 methodology that included a low and high target. The target for this iteration of the plan is assuming 16% of the
18 state's in-state generation. In 2050, Chittenden County should be planning for just under 1 mil MWH. To estimate
19 the target, the existing generation is subtracted out to determine additional amount needed to generation. D. Schibler
20 noted that we had to correct some of the PSD's data.

21
22 At K. Thorley's question, D. Schibler responded that the methodology does not account for peak or seasonal demand,
23 but it is discussed as an issue in the text. K. Thorley suggested showing examples of demand differences by month
24 and time of day to highlight this issue.

25
26 K. Epstein asked how the pace of new renewables generation has changed over time. D. Schibler showed the section
27 on existing generation. He mentioned that most of the renewable energy came from hydro and the last 10 years solar
28 and wind has increased. T. Newton said we can work on including a chart or data that show how generation has
29 changed.

30
31 K. Thorley stated that across ISO New England, behind the meter solar (which generally refers to rooftop solar and
32 small-scale ground mounted) currently generates 10 times the amount of utility-scale solar. However, our plan
33 anticipates nearly half our new capacity coming from grid scale solar. He wondered why we anticipate such a shift in
34 the market for solar going forward, and if this represents high market penetration of rooftop solar. T. Newton
35 responded that what is shown for potential is simply based on land area, which will result in a larger amount of
36 ground-mounted solar compared to what the market has shown historically (which is a focus on rooftop). However,
37 D. Schibler noted that the estimates for rooftop solar are rough given our limited data, including the amount of
38 existing vs. potential new rooftop solar. He noted that these figures are used simply to demonstrate that the county
39 has sufficient resource areas available to meet generation targets regardless of technology for the purpose of guiding
40 locations of new generation facilities. Also, from a policy perspective, rooftop is preferred over ground-mounted and
41 it appears to be able to provide a significant portion of our capacity. T. Newton reiterated that the target now is higher
42 than the low target used in 2018, but substantially lower than the high target.
43

1 K. Epstein noted that in Table 16 the conversion from power in megawatts to energy in megawatt-hours seems
2 incorrect based on the conversion factors stated in the methodology. D. Schibler explained the methodology he used
3 and will double check the numbers.

4
5 K. Epstein noted that the capacity factor for roof mounted should be less than ground mounted. D. Schibler
6 responded by saying that the data we used as the basis for rooftop potential filters for limitations, which may be the
7 reason why the capacity factor is higher than normal. This workflow was developed by ESRI (the producers of
8 ArcGIS) and performed by the Vermont Center for Geographic Information (VCGI). D. Schibler thanked the
9 committee for scrutinizing the data and mentioned that the data is theoretical, but he will double-check the capacity
10 factors used. K. Epstein asked for a disclaimer explaining the caveats.

11 D. Schibler further explained how the estimate from acres to MWh and then disaggregation to the municipal level. D.
12 Parkins pointed out that the percentage of Global Foundries' (GF's) consumption is not included. M. Needle added
13 that it is very unlikely that we are going to be able to get the data, so the statement will be edited to say simply that
14 GF is a very large consumer of energy. K. Epstein pointed out that with regard to reaching municipal generation
15 targets, it is NOT possible for all municipalities to do so with a single technology.

16
17 D. Schibler reviewed the municipal renewable energy targets in table 27. The committee questioned the electricity
18 consumption of Burlington vs. Essex Junction. v. Essex Town. D. Schibler mentioned that GF and industrial and
19 commercial businesses in the Town contribute to these consumption amounts for electricity. M. Needle compared the
20 data to the 2018 data and said that it aligns.

21
22 The Committee discussed Table 28 showing municipal and regional generation targets relative to total renewable
23 generation resources available. T. Newton asked the Committee how they would like to address the fact that Essex
24 Junction's target is higher than it can produce. At K. Thorley's question, T. Newton said that when we review
25 Section 248 petitions for permitting new facilities, we don't look at the targets. D. Schibler said the targets are not
26 binding and are used only for planning purposes. D. Parkins suggested discussing whether Global Foundries was
27 approved to be its own utility. Conversation about the enhanced energy plan for Essex Town ensued.

28
29 The Committee agreed that under the process outlined for municipal targets, there is no easy way to reconcile Essex
30 Junction's targets with its capacity at a local level, but it would be sufficient to discuss this in the context of GF's
31 consumption, and note that the regional target will still be met. The contributions of other municipalities beyond their
32 targets can also be mentioned.

33
34 K. Thorley pointed out that on page 17 add some numbers about monthly capacity with respect to solar and wind in a
35 summer and winter months.

36
37 K. Thorley asked about the need to supply biomass for the McNeil generation plant from outside of Burlington and
38 how this is handled in terms of setting targets. D. Schibler responded that the PSD standards for biomass electricity
39 facilities acknowledge this issue but do not require accounting for biomass imports in targets / existing generation,
40 especially since this only applies to two major facilities statewide (McNeil and Ryegate). D. Schibler also mentioned
41 that we added more about biomass that will be seen in the next draft.

42
43 K. Epstein offered some minor comments about typos and units.

44 **4. ECOS Plan Review**

45 **a. Supplement 6**

46 Keith Epstein had the following questions and comments:

- 47 • P. 9: Clarify how transportation energy from home electric vehicle charging is counted. M. Needle clarified
48 that EV charging is only counted separately in the transportation targets, irrespective of the location where
49 they are charged, and that this energy is not counted in place-sector energy use (electricity or thermal).
- 50 • P. 11: there is a typo between the text and table stating the number of new air source heat pumps.

- 1 • P. 12: Table 14 does not have units of energy.
- 2 • Coordinating bike/ped connectivity between communities, not just within. E. Churchill: CCRPC’s Active
- 3 Transportation addresses county-wide bike/ped connectivity. K. Thorley suggested coordinating official
- 4 maps between different communities. Staff suggested that a reference to the Metropolitan Transportation
- 5 Plan be added, and M. Needle said that this will be captured in the transportation section of the ECOS Plan
- 6 and included in the Enhanced Energy Plan package provided to the Department of Public Service.
- 7

8 M. Needle resumed an overview of Supplement 6, which serves as an appendix to the ECOS Plan for energy data. It

9 includes explanation of how the numbers were developed and how municipalities can understand and use the data for

10 local enhanced energy plan. There were no further questions from the Committee on Supplement 6.

11 **b. Energy Key Trends and Issues**

12 p. 37: K. Epstein suggested changing the axis units on these bar graphs to simply read million MMBTUs rather than

13 10,000s thousand MMBTUs, and that units should be added to the graph on p. 36.

14

15 M. Needle briefed the Committee on the revisions to Key Issues and Trends since the first draft. A major difference

16 was the inclusion of equity analysis regarding energy issues, specifically the energy goal.

17

18 D. Parkins asked if the Energy goal could better acknowledge the burden faced by marginalized communities under

19 the current system of energy use. D. Schibler suggested that the first paragraph of Energy Overview somewhat

20 addresses this, but D. Parkins was concerned that the current goal language might place roadblocks to development

21 of renewable energy if any burden is expected on a particular community. He suggested something along the lines of,

22 “The RPC will strive to bridge the gap between inequities among communities and reduce any unreasonable burden

23 placed on specific communities.” Or insert at the start, “In pursuit of an equitable transition for all communities...”

24

25 E. Churchill asked for clarification of whether the goal on page 32 is to have 100% of light-duty vehicles be fully

26 electric refers only to sales or is it inclusive of all vehicles on the road. M. Needle clarified that it is only sales.

27

28 T. Newton asked for more specificity about goals for siting of electric vehicle charging, which currently refers to

29 nearly all locations.

30

31 E. Churchill noted that the reference to the MTP should also include transit, not just bicycles and pedestrians. M.

32 Needle suggested that this could be included in the forthcoming transportation section.

33

34 With regard to heating, T. Newton asked whether we could specifically talk about how to address energy inequities.

35 D. Parkins suggested including geothermal in this section, and D. Schibler suggested biomass.

36

37 T. Newton suggested replacing “Energy” with “Electricity” in the title of this section and throughout the text.

38

39 K. Thorley made the following suggestions to this section:

40

- 41 • Clarify that renewable access to energy is more of an issue of ownership or financial stake rather than
- 42 consumption, since most of the grid is sourced renewably.
- 43 • Grid resilience should include a stronger statement about using battery storage to meet peak demands.
- 44 • The Renewable Energy Standard section should clarify that the figures cited are post-REC, but expressed
- 45 surprise at the small proportion of non-renewable electricity cited given peak demands in the winter, which
- 46 rely primarily on fossil sources.
- 47 • The statement on changing the PUC’s wind rules may need to be moved to the Renewable Electricity
- 48 Generation section. T. Newton noted that staff will be prepping the CCRPC Board for strengthened policy
- 49 statement at their 7/19 meeting; the Energy Subcommittee might get specific questions about this topic.

1 **c. Strategies and Actions**

2 M. Needle reviewed Strategy 2 related to energy and asked for comments from the committee and staff.

3
4 There was discussion about the timing of updates to the transportation sections of ECOS plan related to energy by
5 transportation staff.

6
7 D. Parkins: discuss more partnerships with geothermal organizations. K. Thorley noted that there is some recent
8 news about VGS and possibly other organizations pursuing networked geothermal.

9
10 D. Parkins noted that he appreciated the added language for net-metering caps under Strategy 4, Action f, and
11 suggested adding small-scale renewables as energy equity, and allowing for larger community solar projects.

12
13 K. Thorley asked to clarify what has changed in the siting policies from the 2018 ECOS Plan; M. Needle responded
14 that they have changed very little.

15
16 D. Parkins asked if the known and possible constraints maps could more clearly show where there are areas with no
17 constraints. K. Thorley asked to clarify that these constraints maps do not take into account the specific constraints
18 on wind development. D. Parkins wished that these maps were more useful for low-capacity municipalities to pursue
19 opportunities for development of sites for renewable energy. M. Needle explained that the maps are needed to meet
20 the standards and do not replace site investigation of a potential area that could be developed for renewable energy
21 generation. Online maps are available that could give more detail of potential constraints.

22 **5. Next Steps**

23 M. Needle reviewed the next steps.

24 **a.** Next Meeting: July 24, 2023 – M. Needle will confirm that members will be available for this meeting because
25 a quorum is needed to vote on the draft sections and advance them to the LRPC. A discussion on scheduling
26 ensued.

27 **b.** Long Range Planning Committee (LRPC) Meeting August 8, 2023

28 **6. Adjourn**

29 M. Needle adjourned the meeting at 8:25pm.

30
31 Respectfully submitted, Darren Schibler and Melanie Needle.