

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

4 DATE: Thursday, May 25, 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:

Keith Epstein, South Burlington
Daniel Parkins, Essex
Dwight DeCoster, Underhill
Jeff Forward, Richmond

Staff:

Melanie Needle, Senior Planner
Darren Schibler, Senior Planner

8
9 **1. Welcome**

10 D. Parkins called the meeting to order at **6:04 PM** and welcomed everybody.
11
12

13 **2. Approve April 18, 2023 Minutes**

14
15 *K. Epstein made a motion, seconded by D. Decoster to approve the April 18, 2023 minutes with the*
16 *corrections noted. All in favor.*
17

18 **3. ECOS Plan Energy, Water Quality, and Habitat Strategies / Actions / Maps**

19
20 M. Needle walked the Subcommittee through the portions of the draft ECOS Plan that include
21 strategies related to energy. She noted that the strategies serve as a roadmap for how we work with
22 our partners.
23

24 Strategy 2, which sets a goal of locating 90% of new development in areas planned for growth (15%
25 of our land area) will reduce energy use for transportation and support more efficient buildings. M.
26 Needle reviewed the map of the areas planned for growth, which include the Center, Metro,
27 Suburban, and Village land use areas (everywhere that is not a Rural area).
28

29 K. Epstein asked what the policy significance of the new Transit Oriented Development (TOD)
30 Overlay District is. M. Needle noted that this was included in the Metropolitan Transit Plan as a way
31 to encourage denser development, particularly housing, around existing transit routes to make them
32 more efficient. J. Forward asked if this includes current GMT routes or future ones as well; M.
33 Needle clarified that it is only current routes but the TOD district includes a ½ mile buffer around the
34 routes. Forward hoped that discussions about increasing service between Williston and Waterbury. M.
35 Needle clarified that extending the TOD along Route 2 was discussed with the PAC and LRPC, but
36 that doing so would encourage more development in rural areas than was intended. D. Schibler
37 clarified that this is because the TOD Overlay district promotes higher density than the base planning
38 area, which makes it more context-sensitive and less prescriptive in terms of density. K. Epstein
39 appreciated that the plan identifies the amount of land area planned for growth, and suggested that
40 this be shown for the TOD area as well, and that it may increase over time.
41

42 D. Parkins asked if there was consideration of how this affects the rural planning areas and their
43 ability to foster economic prosperity, or is the entire region dependent on the Center areas. M. Needle
44 responded that development is still allowed in the Rural planning areas, but at the scale appropriate
45 for the context.
46

47 K. Epstein suggested that Strategy 2, Action 1-a be written to say that bike / ped infrastructure is
48 prioritized, not just included. For Action 1-b, he suggested that redevelopment be prioritized to

1 minimize greenfield development, which generated discussion of whether this would discourage
2 development in smaller villages, particularly for brownfields sites. For Action 1-d, Epstein suggested
3 that the term “design quality” be less vague.
4

5 Strategy 4 – Climate / Energy

6 M. Needle described Strategy 4 as the bulk of the energy strategies and actions. K. Epstein asked
7 generally if the actions on the list determine what staff are allowed to work on; M. Needle clarified
8 that there is some flexibility in this regard, but it provides a general framework.
9

10 Subcommittee comments included the following:
11

- 12 • Action a-v, J. Forward noted that getting municipalities to adopt stretch code has been a
13 challenge, and that Richmond’s planner stated that this can’t be done through zoning because
14 it cannot regulate the interior of buildings. M. Needle agreed that zoning generally regulates
15 the use of land and exteriors of buildings, but in Vermont not every municipality has building
16 codes, so this falls to the state. Under the Act 174 guidance from the Public Service
17 Department, municipalities do have authority to adopt the stretch code in their zoning, but the
18 bigger challenge is enforcement, which is currently a self-certification process (this is how
19 the state code works anyway). J. Forward will continue encouraging Richmond to require
20 stretch code for new development; K. Epstein noted that it may be useful to get the Planning
21 Commission, Selectboard, and other decision makers in the same room for a presentation by
22 building energy experts, which was effective for South Burlington. J. Forward noted that the
23 Vermont Department of Public Service (PSD) has operated on the model of having two
24 versions of the code, and that they should be consulted on the recommendation to use a single
25 code.
- 26 • K. Epstein noted that Actions vi and xi are very similar and potentially could be consolidated.
27 M. Needle responded that these are separate because there are different funding sources for
28 planning vs. implementation, but that they could be grouped.
- 29 • K. Epstein also noted that item x is very broad and that other actions could be grouped under
30 here. He also suggested adding an action to review municipal plans and zoning regulations to
31 identify and share best practices. M. Needle and D. Schibler strongly agreed and noted that
32 the EPA Climate Pollution Reduction Grant will provide funding for RPCs to do this work to
33 ensure compatibility with the state’s climate action plan and eligibility for federal climate
34 resilience implementation funding.
- 35 • M. Needle noted that staff have added an action to advocate for the Public Utilities
36 Commission to change the sound rule as requested by the Energy Subcommittee, which
37 members agreed was suitable.
- 38 • D. Parkins suggested that the actions in Strategies 4, 6, and 7 be organized more clearly and
39 follow the structure used in Strategy 2. M. Needle agreed and noted that this might be
40 leftover from when Strategy 4 was included as a sub-group in the land use strategies.
41

42 Constraint and Site Suitability Policies

43 M. Needle provided context for what constraints are included, that they are tied to the maps, and how
44 they are used in the review of Section 248 petitions for Certificates of Public Good (CPGs). She noted
45 that this section generally doesn’t refer to primary vs. base solar and wind areas identified in the
46 mapping exercise, but that those resource areas are determined by the constraint policies which were
47 developed initially in 2016.
48

49 Subcommittee member comments included the following:
50

- 51 • K. Epstein asked to clarify that the units in action b are annual MWh.

- 1 • J. Forward asked for clarification that under Item iv, ground-mounted solar larger than 15 kW
2 are discouraged in designated centers? M. Needle said this is correct because these areas are
3 prioritized for other types of development, rather than large ground-mounted solar
4 installations. J. Forward noted that this may exclude parking lots within developed areas, and
5 that a 15 kW system is actually quite small, which can contribute to the cost of renewable
6 energy development. D. Schibler suggested clarifying that this policy does not apply to
7 preferred sites, which includes parking lots.
- 8 • J. Forward also asked why solar is discouraged on historic buildings (except perhaps on slate
9 roofs). D. Schibler clarified that this may be due to the historic preservation standards used by
10 the Secretary of the Interior which would find that solar panels, like other modern materials,
11 disrupt the historic character of buildings. J. Forward suggested that this action be modified
12 to apply only to buildings listed on the state or national register, rather than historic districts.
13 D. Schibler noted that another option, depending on the circumstances, is to have historic
14 buildings use renewable energy generated through ground-mounted or off-site facilities
15 through power purchase agreements.
- 16 • K. Epstein suggested that action v be reworded to make it more readable by starting with “To
17 mitigate load growth...” M. Needle agreed this was a good change and clarified that this
18 policy was revised to ensure that it applied equally to all types of development.
19

20 Strategies 6 and 7 – Water Quality and Working Lands / Habitats

21 M. Needle noted that these strategies are included because they contain the constraints policies that
22 protect certain natural features and apply to all development, including renewable energy resources.
23

24 D. Parkins asked if the areas preferred for generation could be identified on a map so that it is more
25 clear where there are no constraints. D. Schibler and M. Needle agreed that the visuals of the map
26 could be improved in the next iteration. D. Parkins also suggested providing an online public map
27 viewer. D. Parkins noted that the point symbology of the preferred site map are not legible. M. Needle
28 said that could be fixed easily.
29

30 **4. LEAP Data Targets**

31 Darren reviewed the LEAP prepared by the Vermont Department of Public Service to set greenhouse
32 gas (GHG) emissions reductions targets and energy use by sector to meet the standards in Act 174.
33 The tables are organized by site-based sectors (residential, commercial, and industrial) and the
34 transportation sector. The baseline scenario is business as usual if we are going to keep doing what
35 we are doing today. The second scenario is the Climate Action Plan scenario needed to meet targets.
36

37 For the residential sector, CCRPC staff are waiting for confirmation from PSD that charging for
38 transportation is not included. The residential sector appears to be heating and electrical appliance
39 use. J. Forward noted that in 2-B there are 3X as many heat pumps but the electricity usage doesn't go
40 up as much as much, so it's unclear if thermal is included in the residential final energy demand. D.
41 Schibler agreed that this is confusing, and staff have asked PSD for clarification, but that this might
42 be due to the expected gains in energy efficiency. Keith offered that you can do a rough order of
43 magnitude calculation to see how other fuels go down and electricity should go up by that much. D.
44 Schibler noted that in Table 1-B and Table 2-B the percent of different heat pumps stay consistent
45 across the board and over time. It is unclear whether 1-C is a subset of the tables above.
46

47 Use of wood fuel does go down over time in both scenarios. Staff believe this is because of a state
48 policy to maintain carbon sequestration. The takeaway is that residential sector energy demand will
49 go down because of efficiency but we will see the shift to electricity. Forward is surprised that wood
50 went down, especially pellets dramatically changing. Darren offered that the decrease could be
51 assumptions about building efficiencies.

1
2 J. Forward asked, “What is biogas?” D. Schibler assumed that it is landfill gas but will ask PSD.

3
4 D. Schibler noted that there is not a thermal sector break out for commercial final energy demand.
5 Staff is curious about the meaning of the fuel sources noted as “solar” and “heat.” Regardless, the
6 projections for the commercial sector are similar to residential.
7

8 J. Forward asked about residual fuel oil (also known as No. 6 oil), who is using it in Chittenden
9 County, and recommended that it be phased out in the projections for all sectors. D. Schibler and M.
10 Needle speculated that since the projections use Energy Information Administration data for the entire
11 Northeast region disaggregated to the state and county level, a few users of residual fuel oil from
12 elsewhere may be represented in the data. J. Forward speculated that residual fuel oil could be being
13 used in the NEK in a large boiler.
14

15 K. Epstein asked why gasoline is in the commercial sector (staff have asked this of PSD) and added
16 that wood increasing. J. Forward mentioned that the wood fuel could be being utilized in schools. J.
17 Forward wanted to know if district heat energy is included and added that BHS renovations are
18 removing the wood chip boiler and going with geothermal.
19

20 D. Schibler noted that the industrial sector has the least amount of detail because of the least amount
21 of data. There is not a lot of difference between the two scenarios because industrial uses are so
22 specific with some fuels being replaced with electricity where appropriate. J. Forward had the same
23 question about residual fuel oil and road oil. D. Schibler answered that he thought some public works
24 garages use residual fuel. Same question about gasoline.
25

26 D. Schibler discussed that in the non-road sector the shift is to biodiesel and that there are some
27 increases in sustainable aviation fuel. Keith added that the CAP scenario is higher than the base
28 scenario and that seems unusual. Darren guessed that we could be seeing an increase because the
29 LEAP data accounts for population and economic growth, but that there are no state or regional
30 policies regarding the non-road sector.
31

32 D. Schibler noted that across the transportation sector, there is a nearly complete shift away from
33 fossil fuels and towards electric, including for heavier-duty vehicles. He also noted that for passenger
34 cars, the CAP scenario assumes a greater shift towards battery-only electric vehicles rather than plug-
35 in hybrids. D. Parkins asked whether hydrogen fuel cell vehicles are included in the modeling. D.
36 Schibler said this was not included, probably due to the lack of availability of those types of cars in
37 the United States. However, future modeling may capture new technologies.
38

39 D. Parkins asked whether the influence of factors outside the state (such as vehicles driving in from
40 other states) are accounted in the LEAP data. Staff will ask if the PSD considered this.
41

42 J. Forward noted that in non-road fuels there is no mitigation on gasoline, and advocated for a policy
43 to move this sector towards electricity especially for mowers, since it can improve air quality and
44 health as well as reduce greenhouse gas emissions.
45

46 **5. Brief Discussion on Net Metering Rule Project Size, In-State vs. Out-of-State Renewable** 47 **Electricity Dollars, and Barriers to Wind Development**

48 Net Metering Rule Project Size 49

1 J. Forward disagreed with the assessment that net metered solar is too expensive; this may be true
2 solely when utilities consider their fiscal responsibilities to shareholders, but this does not include the
3 societal benefits of the net-metering program, which would be a more complicated analysis. D.
4 Schibler agreed, also explaining that the increased cost is associated with the rate payers subsidizing
5 the net metering program, but that utilities are legally required to keep rates as low as possible.
6

7 J. Forward suggested that coupling net metering with batteries will increase the cost effectiveness. K.
8 Epstein added that batteries could eliminate the need for net metering for some customers who simply
9 use them to reduce their utility bill rather than exporting excess power.
10

11 D. Parkins suggested that if the issue is cost subsidy, utilities could simply be required to pay the
12 higher rate 500 kW, but then pay normal rates above that. He emphasized that the point of net
13 metering is to spur solar development, and that considering other policies such as the sound rules for
14 wind, it is the only renewable technology available in the state and was concerned about further
15 barriers in the sector. Daniel said net metering creates equity to allow people to participate in the net
16 metering program to access solar.
17

18 K. Epstein added that project costs do not prevent households from installing solar net metering, since
19 there are no-cost options offered by installers. D. Decoster added that there has been zero solar
20 penetration in his low-income households. D. Parkins speculated that that could be of not being able
21 to focus on solar because of a variety of more immediate needs. D. Decoster agreed, noting that the
22 no cost programs from Sun Run don't lower the electric bill. J. Forward suggested that community
23 solar could be aggregated to target low- and moderate-income households, and D. Parkins added that
24 net metering would be a benefit in this scenario.
25

26 D. Schibler said that staff could take this feedback and decide how to include it into the ECOS Plan
27 and other advocacy on state policy. K. Epstein said he would like to see an effort to increase the net
28 metering capacity for public entities. Jeff added that the offsite option in net metering is helpful and
29 hoped to find other ways to make renewables more affordable.
30

31 In-State vs. Out-of-State Electricity Spending

32 J. Forward mentioned that now is a good time to discuss this topic given the legislative attention next
33 session on the renewable energy standard. D. Parkins appreciated paragraphs that staff included in the
34 ECOS Plan.
35

36 K. Epstein wondered if the ECOS Plan could include stronger language about statewide regulatory
37 changes, including the specific issues that make renewables unviable? D. Schibler responded that
38 staff can make a more pointed argument that current regulations stifle renewable energy generation
39 in-state because of requirements on utility costs. He noted that there are also physical barriers to
40 distributed generation in the form of grid constraints that will be a cost to ratepayers regardless;
41 however, those upgrades will create jobs and support long-term in-state revenue generation. J.
42 Forward offered that there is an equity issue exporting impacts of our consumption to Québec.
43

44 **6. ECOS Plan Schedule**

45 M. Needle reviewed the revised schedule.
46

47 J. Forward made a motion, seconded by K. Epstein, to adjourn the meeting. The motion passed
48 unanimously at 7:52 PM.
49

50 Respectfully submitted,

- 1 Darren Schibler and Melanie Needle