



## **CCRPC Long Range Planning Energy Sub -Committee**

### **Minutes**

**DATE:** Tuesday, April 18, 2017  
**TIME:** 5:00 p.m. to 7:00 pm  
**PLACE:** CCRPC Office, 110 West Canal Street, Suite 202, Winooski, VT.

#### **Attendance**

Keith Epstein, South Burlington  
Jeff Forward, Richmond  
Catherine McMains, Chair, Jericho  
Sharon Murray, Bolton  
Karen Purinton, Colchester  
Irene Wrenner, Essex

Kate Desrochers, VEIC  
Dave Roberts, VEIC

Melanie Needle, CCRPC  
Emily Nosse-Leirer, CCRPC  
Regina Mahony, CCRPC  
Marshall Distel, CCRPC  
Eleni Churchill, CCRPC  
Jason Charest, CCRPC

#### **1. Welcome + Introductions**

The meeting commenced at 5:06.

#### **2. Review March 21, 2017 Minutes\***

Sharon Murray made a motion and Karen Purinton seconded the motion to accept the minutes. The motion passed unanimously.

#### **3. LEAP Presentation**

Dave Roberts and Kate Desrochers from VEIC attended the meeting to present the latest LEAP results. The LEAP model has been run again to reflect refined inputs that better reflect actual travel patterns in Chittenden County and the CCRPC Commission approved population forecast for 2050.

As a reminder, the Long-range Energy Alternative Planning (LEAP) model is an accounting framework that shows one possible scenario for how Chittenden County can meet its 90% renewable by 2050 and associated goals. It is a “self-consistent story line of how an energy system might evolve over time.”

In CCRPC’s 90x2050 LEAP scenario, the state goal of getting 90% of energy from renewable sources by 2050 is met, but CCRPC only gets 78% of its energy from renewable sources. Chittenden County’s LEAP model doesn’t change any of the fuel use at the airport or for railroads to renewable sources. However, Jeff Forward noted that there is the possibility of biofuels being used for aviation in the future. VEIC Staff said that the assumptions in the 90X2050 scenario are consistent with past state-

led runs of the LEAP model for aviation and rail. However, the Chittenden County 90X2050 scenario factors in Chittenden County's VMT being lower than the state average (and assumes that all electricity being used to power EVs is coming from renewable sources). Catherine McMains noted that she is pessimistic about lowering VMT and increasing fuel efficiency for cars because of current low gas costs and potential changes in federal policy.

VEIC has also run the LEAP model to see what would happen if Vermont Gas continues business as usual. In that case, the region would only obtain 50% of its energy from renewable sources by 2050 which does not meet the state 90X2050 goal. The Committee discusses that gas infrastructure remains a challenge for Chittenden County's 90X2050 goals. Melanie indicated that this analysis of Vermont Gas in the 90X2050 scenario is an important data point to inform the policy conversation about the implications of the renewable energy goal.

Jeff Forward raised concerns about whether renewable natural gas could ever be produced in significant enough quantities to replace the natural gas used by VG's customers. He shared that a past study showed that there is the possibility for about 30MW of production from methane from cattle and landfills, but this is only about 3% of the state's load and 30MW is an ambitious estimate. Additionally, Jeff commented that compressed natural gas (CNG) could be an energy source in the transportation sector. CNG in the transportation sector does have a positive impact on air quality and efficiency when compared to gasoline. However, it does not advance the renewable energy goal. Staff indicated that this concept of will be added to the narrative portion of the ECOS Plan.

Melanie asked why there is a significant difference between wood chips, wood pellets and cord wood as energy sources in the 90x2050 scenario. Jeff Forward said that cordwood and pellets are more desirable for residential and wood chips or wood pellets can be used for schools.

Going forward, VEIC's next steps will be to adjust the LEAP parameters to reflect the results of CCRPC's Metropolitan Transportation Plan (MTP) modeling. This work will likely be started in the Fall.

#### **4. ECOS Plan Draft Energy Element Revisions**

Draft revisions to the ECOS plan were distributed before the meeting (available in the packet). The edits are intended to make the ECOS plan compatible with the energy planning standards mandated by Act 174. Emily explained that there is not much that needs to be changed in terms of the text in the plan. The committee focused its discussion of the changes on two issues: whether to say that renewable energy generation "shall" not take place in areas with known constraints and how to address the fact that natural gas infrastructure poses such a challenge to meeting the 90x2050 goal.

On the issue of "shall," committee members were divided. Some felt that very strong language would be beneficial, because it would allow CCRPC greater influence in the PSB process. By saying that development "shall" not occur in areas with known constraints, CCRPC may be able to help towns steer wind and solar development to desirable places. But other committee members felt

that “shall” was too strong a prohibition, especially given that known constraints are originally defined by the state as areas signaling “likely, though not absolute, unsuitability for development based on statewide or local regulations or designated critical resources.” The Committee also identified that lists of the town local constraints could be problematic for town plan/regional plan consistency in the future if the town plans change. Staff indicated that they could add a statement saying that if there is an issue with consistency, then the ECOS Plan should defer to the currently adopted municipal policies in effect. Staff will examine these issues further and draft new text. The committee will make a recommendation to the board on language at their May 16 meeting.

As discussed above, the LEAP scenario model shows a significant reduction in natural gas as an example of how we may reach the 90x2050 goal in Chittenden County. The committee agreed that this pathway will be challenging because of our current reliance on natural gas for heating in significant portions of Chittenden County’s areas planned for growth, a recent expansion of the service area (which will likely cause a switch of propane and oil customers to natural gas), and the relatively low cost of the fuel source. CCRPC has no control over the natural gas industry, or the Public Service Board’s decisions to grant Certificates of Public Good for new natural gas infrastructure. VEIC has modeled Chittenden County’s ability to reach the 90x2050 goal if natural gas usage continues at current rates. In that scenario, Chittenden County will only be able to obtain 50% of our energy from renewable sources. With this in mind, the committee suggested that the plan be clear about the challenges we are facing to meet the 90X2050 goal. However, the committee also agreed that none of the actions that CCRPC has control over would change because of this natural gas issue. CCRPC will work to the best of our ability to meet the 90x2050 goal via the strategies we have influence on. For example, CCRPC can support education on thermal efficiency improvements in buildings and equipment upgrades and electrification of the heating sector through heat pumps, electrification of the transportation sector, promoting alternative modes of transportation, and working with our communities to plan for development in our areas planned for growth. These actions may help us reach the target collectively, even if a total shift away from natural gas does not occur. Karen Purinton added that the mapping identifies where we don’t want energy generation to be and we have yet to have a discussion on the preferred sites for energy generation. She is concerned that the prime energy areas are inviting energy development in greenfields and the State seems to be trying to encourage energy generation on previously developed areas. The committee asked staff to develop more descriptive language to describe the challenge and CCRPC’s limited control over gas infrastructure. This language will be discussed at the next committee meeting.

## **5. Act 174 Package to Municipalities**

As part of our Act 174 training contract with Northwest RPC and the Department of Public Service (DPS) we are required to send municipalities maps showing prime and base energy generation areas for both wind and solar, as well as data analysis results that estimates

- Current energy use across transportation, heating, and electric sectors
- 2025, 2035, and 2050 targets for thermal and electric efficiency improvements, and the use of renewable energy for all sectors
- The amount of thermal-sector conservation, efficiency, and conversion to alternative heating fuels needed to achieve the targets
- The amount of electric-sector conservation and efficiency needed to achieve the targets.

Staff reviewed Northwest RPC's sample of these data and explained that staff will be using this as a template for what we provide to our municipalities. Also, staff is working with a Department of Public Service-provided methodology to break out the LEAP data for each municipality in our region and will review this with the Committee. The Committee asked whether DMV registration data is available to better estimate transportation energy use. VEIC cautioned that the DMV data does not align directly with town boundaries because it is based on zip codes and it does not identify the vehicle duty type. Staff said they would consider getting these data. Jeff Forward asked for the energy template to be shared with him so he can pass it along to his energy committee.

## **6. Solar and Wind Targets**

At the March meeting, the Committee agreed to continue planning for wind in our region and asked staff to assign wind targets to municipalities. Staff identified that this creates an equity issue across the region because not all towns have wind potential according to the data we are using.

Melanie discussed the fact that there are equity concerns about having local targets for wind, given that at least four municipalities do not have any industrial-scale wind potential at all. The committee agreed that having targets at the regional levels is enough, and CCRPC staff can discuss the wind maps and wind generation potential individually with each affected municipality to ensure that they are comfortable with what's being represented.

Additionally, the Committee discussed the differing renewable energy targets regions can choose to work with. To date, CCRPC has been working with the solar and wind targets that consider energy resource areas as well as potential. Melanie has estimated that these targets are reasonable given the energy resource area the County has according to the energy maps. Melanie indicated that the State has another set of targets that regions can use which are technology neutral and are significantly higher. These targets are only based on population and are much higher than the targets that consider energy resource area. Melanie told the Committee that the DPS guidance she received is that regions should choose the methodology that is most appropriate for their region. Melanie reported that she **has** been using the targets that consider energy resource in coming up with our local targets. The committee discussed the fact that this is a confusing state policy. Charlie expressed concerns that in the future this could mean that our plan may not be energy compliant if this is the case. The committee asked Melanie to check the numbers again because there was some confusion on them.

Everyone was concerned about the fact that all regions are using different methodologies to come up with their goals. What will the consequences be when we look at whether all regions are meeting their goals if everyone is using a method chosen because it's beneficial to them?

Charlie warned that CCRPC should be prepared to be challenged by the PSB on our assertion that we are unable to meet the higher generation targets based only on population. We need to use the smaller targets because our limited resource generation area cannot provide all the energy required by our large population.

## **7. Next Steps**

The next meeting will be on May 16. The meeting adjourned at 7:15.