



CHITTENDEN COUNTY RPC

Communities Planning Together

CCRPC Long Range Planning Energy Sub -Committee

MINUTES

DATE: Tuesday, February 21, 2017

TIME: **5:00 p.m. to 7:00 pm**

PLACE: CCRPC Office, 110 West Canal Street, Suite 202, Winooski, VT.

Committee Members:

Irene Wrenner, Town of Essex
Robin Pierce, Essex Junction
Catherine McMains, Chair, Jericho
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

Presenters:

Dave Roberts, VEIC

1. Welcome + Introductions (5 minutes)

No changes were made to the agenda.

2. Review Minutes from the January 31, 2017 meeting* (5 Minutes)

A few small edits were made and the minutes were accepted.

3. VEIC Presentation on Transportation Energy

VEIC Staff presented their research findings on areas that are comparable to our region in terms of size, but which have seen a decrease in vehicle miles traveled. This research will inform how the LEAP inputs for transportation are revised to help us understand the impacts alternative transportation modes have on achieving the 90X2050 goal. The presentation can be accessed on the CCRPC website.

In accordance with provisions of the Americans with Disabilities Act (ADA) of 1990, the CCRPC will ensure public meeting sites are accessible to all people. Requests for free interpretive or translation services, assistive devices, or other requested accommodations, should be made to Emma Vaughn, CCRPC Title VI Coordinator, at 802-846-4490 ext *21 or evaughn@ccrpcvt.org, no later than 3 business days prior to the meeting for which services are requested.

The purpose of reviewing this model again is to examine whether land use and transportation infrastructure choices in the future may lead to a decrease in Vehicle Miles Traveled (VMT) per capita between now and 2050.

Keith Epstein raised a question regarding whether the calculations regarding thermal energy use in the LEAP model anticipated the fact that Vermont's energy codes will continue to become more stringent over time. Dave Roberts suggested that Kate Desrochers would be a better person to answer that question.

Keith asked whether there are specific studies showing regional comparison of gas costs and VMT. Dave said that he is not aware of region-comparison studies, but that historical data show that higher gas prices lead to fewer VMT. However, Catherine raised the point that the alternate is also true, and that transit ridership drops and driving increases as gas prices go down.

Karen Purinton made the point that calling for efficiency in transportation first is important, because there are no guarantees that the electricity that powers transportation will be from renewable sources (i.e. driving an electric car powered by electricity from a natural gas power plant is still using non-renewable energy). Dave agreed, and showed a slide showing that a VMT decrease leads to almost a 1-to-1 decrease in transportation energy use, even if no other fuel changes are modeled.

Dave asserted that Boulder, CO may be the best comparison for the Burlington area's aspiration, even though the Duluth MN area is closer in terms of population and other statistics.

Dave described that autonomous vehicles have potential to increase or decrease VMT due to various factors, but that many environmental groups have serious concerns about potential increases in VMT from automation.

Melanie Needle asked what the ownership model of autonomous vehicles is expected to be. Dave replied that it remains to be seen, but by 2050, there is potential for autonomous vehicle ownership by both individuals and ride-sharing companies. Discussion ensued.

Eleni Churchill mentioned that CCRPC staff will be presenting more transportation modeling in the future, and that one scenario will consider autonomous vehicle usage. Eleni also asked if the Long-range Energy Alternative Plan (LEAP) model will take into account the VMT reductions that are shown in CCRPC modeling, and Melanie confirmed that they would be. Dave said that he thought a 1/3 reduction in VMT (to be in line with Boulder CO) would be very aspirational. Later, Melanie asked whether modeling the Metropolitan Transportation Plan (MTP) scenario in terms of VMT might be possible and useful for the energy plan. Discussion ensued regarding the non-coordinated deadlines for the MTP and the first draft of the energy plan.

Melanie asked how many EVs would be needed if VMT was decreased by 1/3. Dave said that there might be a 1/6 reduction in EVs if there were a 1/3 reduction in VMT.

Melanie asked whether it makes sense to revise the LEAP model to be more consistent with the VMT per capita we are currently experiencing in Chittenden County. Dave said that is certainly feasible given that the VMT seen in the Boulder, CO example would be very aspirational.

Keith asked whether the model factors in where charging will take place. Dave replied that this depends greatly on EV mileage ranges, but almost all charging will take place at home, with some at work. A very small percentage of charging takes place in public places.

Melanie mentioned that it would be useful to see the predicted VMT reduction in comparison to the 90x2050 projections, since it might lead to changes elsewhere in the model.

A white paper on this subject will be available from VEIC within the week.

4. Regional Solar + Wind Targets, Solar Town Targets (30 minutes)

Melanie described how she created a new “share” of electricity production for each town based on an additional factor: electricity consumption. As anticipated, several cities (Burlington, South Burlington, and Williston) have larger proportions once consumption is included.

The committee discussed whether impervious surface should be removed from calculations of the solar share. Keith suggested that a useful approach might be to use different solar panel densities for developed/on-building versus undeveloped/open land, and to calculate solar potential accordingly. Regina Mahony reminded the committee that there is not unlimited time and effort to spend on coming up with estimates.

Melanie suggested that given time constraints, looking at solar production potential on buildings/impervious surface vs. land based energy potential may not be feasible. Melanie said she will include electricity consumption per capita in the municipal allocation formula. The Committee agrees with this approach.

Melanie also added in proximity to 3-phase power to the calculation of solar production potential for several example towns. Colchester and Jericho would be able to meet their low target for the town’s solar production but not the high targets. The committee discussed the pros and cons of expanding 3-phase power. For the next meeting, Melanie will complete this analysis and create a corresponding map, and the committee will continue to discuss. Robin Pierce made the point that looking at a mile within 3-phase power does not take into account the proximity of generation to load. However, Keith made the point that there may not be significant gains in efficiency for proximity when distances are about 50 miles or less.

Regina reiterated that we need to avoid analysis paralysis.

5. Updating the ECOS Plan to meet Act 174 Standards* (30 minutes)

Melanie explained that staff is proposing that we shift away from thinking about developing a standalone Regional Energy Plan and move towards identifying how we need to enhance the current ECOS Plan to meet the Act 174 standards. She added that staff is also proposing that the Climate Action Guide be the resource for providing towns examples of actions they can consider in their planning. However, Regina mentioned that it may be difficult to make edits to the full climate action guide. The committee was supportive of this strategy.

The Climate Action Guide can be found here: <http://www.ccrpcvt.org/wp-content/uploads/2016/01/Chittenden-County-Climate-Action-Guide-2014.pdf>

Robin reiterated his belief that all energy production should ideally take place on the parcel on which it is used.

6. Next Steps (5 minutes)

By April 2017, CCRPC must have municipal energy analysis and targets set. The draft plan is due to DPS in May 31, 2017.