



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

**DATE:** Monday, May 7, 2018

**TIME:** 5:00 p.m. to 6:00 pm

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

**Attendees**

Catherine McMains, Jericho  
(Chair)  
Will Dodge, Essex

Keith Epstein, South Burlington  
Jeff Forward, Richmond  
Regina Mahony, CCRPC Planning  
Program Manager

Melanie Needle, CCRPC Senior  
Planner  
Emily Nosse-Leirer, CCRPC Planner  
Tom Murray, Vermont Gas

**1. Welcome + Introductions**

The meeting began at 5:06pm.

**2. Review February 20, 2018 Minutes**

Keith Epstein made a motion to approve the minutes. Jeff Forward seconded the motion. The motion passed unanimously.

**3. Presentation on Renewable Natural Gas: Tom Murray, VP-Customers and Communities Vermont Gas**

Tom Murray from Vermont Gas attended to give an overview of renewable natural gas (presentation attached). Renewable natural comes from any natural source of gas, including wastewater and decomposition. As background, Tom said that the number of biogas projects that use natural gas as fuel (instead of electricity generation) is expected to double over the next few years.

To use biogas to generate electricity, the fuel can be about 60% methane. For it to go in a pipeline, it needs to be closer to 92% methane. The 2018 supply comes from EBI Landfill in Quebec, which serves the Montreal area. In the future, there is a VT farm biodigester that may be coming online in 2018 or 2019, as well as another 300,000 MMBTU flowing into the system from RNG over the next 5 years – this is in comparison with 7,666,209 MMBTU total used in Chittenden County in 2015. Tom reports that this is 5% of their total “firm” consumer base. The accounting protocol will essentially be like retiring a REC for electricity. However, digesting processes for manure don’t get rid of phosphorus at all.

An engineering company will be completing a verification that the process is “legit.” This validation process will hopefully lead to a “green E” stamp in the future. Their auditing company audits things for Green E certification. Jeff asked if the verification process will account for methane leakage. Tom stated that he did not know because the audit occurs at the delivery end, when the TCPL delivers to Highgate.

The Vermont Gas adder for RNG is \$1.1749/ccf. This brings the cost up to the average commodity cost for RNG. The commodity cost for RNG is approximately \$1.70/ccf.

Emily asked how energy use for cleaning up the biomethane for the pipeline compares to other extraction energy use.

Keith asked how VGS will determine how much to buy for resale. Tom explained that if VGS overbuys compared to what

consumers want, they will be able to sell it wholesale, for example to customers who would otherwise buy carbon offsets. The committee asked for confirmation on the issue of whether it's carbon dioxide neutral or not. Tom said that Vermont Gas views the GHG saved from not extracting natural gas as making the RNG carbon neutral. The committee reiterated that they would like to know how much energy is used to clean up the biomethane to see how it compares. Tom said that he can find out more information.

Another potential source of biomethane is from gasification of wood, in which heating wood produces gas without burning it. Jeff stated that he thinks this is not an effective process at the moment.

Tom said that hydrogen injection into the system is a new technology that people are experimenting with, in which electricity is taken off the electric grid and turned into hydrogen. This theoretically stores energy without batteries. This theoretically also allows you to combine hydrogen with CO<sub>2</sub> from carbon capture systems to make CH<sub>4</sub>.

Tom stated that he thinks that the state's goals should not be about renewable technology, but rather about CO<sub>2</sub> reduction.

Melanie asked if the state will be counting it in their renewable energy targets. Tom stated that they likely will not. Melanie reiterated that she is concerned with how municipalities will be able to count there towards their generation goals. The committee agreed that it would be very helpful to hear how much RNG is being used in each municipality annually.

Melanie asked about what size farms need to be to produce an adequate amount of RNG. A farm needs to have about 1,000 head of cattle for producing RNG to be profitable for them.

Jeff asked if CCRPC staff are proposing new ECOS Plan language based on this. Melanie confirmed that we are not, this is an educational opportunity for the committee and staff.

Keith asked how Tier III requirements fit into this. Tom said that electric utilities could choose to pay the premium for RNG for customers – it will be a Tier III measure that utilities can choose to purchase.

The presentation can be found here: <https://www.ccrpcvt.org/wp-content/uploads/2018/05/RNG-CCRPC-April-2018.pdf>

#### **4. Vermont Climate Pledge**

At the March Board meeting, the board asked the Energy Sub-Committee to make a recommendation on CCRPC joining the [Vermont Climate Pledge Coalition](#). Sharon was not able to attend the meeting, but supported CCRPC joining the Climate Pledge coalition, if more specific actions are available.

Melanie gave the following context:

Chris Shaw, South Burlington Representative, in reviewing the Draft ECOS Plan asked the CCRPC to consider joining the Vermont Climate Pledge Coalition. The Executive Committee discussed this at the March 7th meeting and decided to put this on the Board agenda and recommended the Board ask the Energy Sub-Committee to make a recommendation on whether CCRPC should join the Climate Pledge. The Board agreed.

The Vermont Climate Pledge Coalition, coordinated by the City of Burlington and the Energy Action Network, is a group

totaling 45 organizations consisting of Vermont municipalities, non-profits, colleges and universities, businesses, farms, and other community organizations committed to reducing carbon emissions and help Vermont meet the U.S. pledge to reduce greenhouse gas emissions levels from 2005 by 26-28% by 2025. One central purpose of the Coalition is to demonstrate a commitment to the Paris Agreement despite the Federal government's withdrawal. Additionally, coalition members are encouraged to make pledges via the Climate Pledge Tracker. If CCRPC becomes a member, CCRPC can record actions already taken and pledge to take new actions which may include ongoing activities and accomplishments such as encouraging transportation alternatives, developing enhanced energy plans, and installing EV charging equipment.

Current coalition members include but are not limited to City of Burlington, City of South Burlington, Burton, Dealer.Com, Efficiency Vermont, Local Motion, Lake Champlain Regional Chamber of Commerce, University of Vermont Health Network, Vermont Businesses for Social Responsibility, Vermont Gas Systems, Vermont League of Cities and Towns, and Vermont Natural Resources Council. There may be a concern about CCRPC joining when only two of our municipalities have joined.

There may be benefits to joining the Vermont Climate Pledge Coalition. The Climate Pledge Tracker is a useful tool for sharing resources and educating others on planning for an energy future that is clean and affordable. By joining the coalition, CCRPC will elevate the work already being done on climate mitigation and lead by example in becoming a member. Additionally, the draft ECOS Plan includes an action encouraging entities to join the coalition. Strategy 2.4.a.vi. reads: "Use the Energy Action Network (EAN) Community Energy Dashboard to educate residents and municipalities about opportunities to reduce energy use and switch to renewable energy sources. Additionally, institutions (including municipalities, institutions of higher education, businesses and non-profits) can use the Vermont Climate Pledge Coalition Tracker to upload actions that will help the State achieve its 90% renewable energy 2050 goal."

Jeff stated that he thought it would be just as hard or easy for CCRPC to take the pledge as any other commercial tenant that rents space. Catherine raised the issue of conflicts – would there ever be a situation whether there would be a conflict between CCRPC taking the pledge and a municipality not taking the pledge.

Jeff asked if CCRPC has an official energy conservation policy. He said that Richmond found it to be a useful exercise that provides good policies for them.

Will stated that he thought joining the pledge was successful in Essex because it was a grassroots effort, not something that the town was asked to do.

Will stated that he thought that the Vermont Energy Dashboard would be very useful for tracking the progress towards the pledge.

Jeff strongly felt that the CCRPC should join the pledge. He made a motion that the committee should recommend the adoption of the pledge to the board. The pledge will focus on our organizational energy use, not a regional policy. Keith seconded the pledge. It passed unanimously.

## **5. Next Steps**

Melanie informed the committee that once the ECOS Plan is approved a formal request to review the ECOS Plan for a determination of energy compliance will be sent to the Department of Public Service. Melanie will inform the committee of the state's public hearing. The meeting adjourned around 6:30pm.