

## **Vermont Climate Action Commission**

Thursday, October 12, 2017

1 – 4 pm

The Montpelier Room/ National Life Building / Montpelier

Commissioners Present:

Marie Audet, Michele Boomhower, Matt Cota (for Peter Bourne), Harrison Bushnell, Kristen Carlson, Paul Costello, Tom Donahue, Bethany Fleishman, Joe Fusco, Liz Gamache, Stuart Hart, Adam Knudsen, Bill Laberge, Linda McGinnis, Johanna Miller, Michael Schirling, Mary Sprayregen, Bob Stevens, Riley Allen (for June Tierney), Robert Turner, and Peter Walke

### **Agenda Items**

#### **1. Welcome (Walke and Costello)**

The Chair thanked all for coming and recognized the four Commissioners (Stuart Hart, Michael Schirling, Bethany Fleishman, and Johanna Miller) attending their first meeting and asked them to introduce themselves.

The Chair also noted that two Commissioners had designated alternates to attend on their behalf: Riley Allen (Vermont Department of Public Service, for June Tierney), Matt Cota (VT Fuel Dealers Association, for Peter Bourne)

The Chair described the items in their packets:

- A copy of the Agenda
- Updated information related to the GHG inventory presented on 8/15
- An (Incomplete) list of potential ideas
- Decision matrix of list
- A mileage submission form

#### **2. August 15 meeting minutes (Costello)**

Tabled to 3:55 PM

#### **3. Open Meetings Law Review (Jen Duggan – ANR General Counsel)**

At request of the co-chairs, Ms. Duggan provided a briefing on the Vermont Open Meeting Law to make committee members aware of the legal requirements regarding the conduct of the commission.

- The requirements apply to all meetings of public bodies unless exempted. Apply to both the commission and sub-committees
- Meetings are required to make available to the public an advance notice of the meeting and an agenda
- Meetings will discuss all items and actions
- Meetings must allow the public to attend and participate
- Meeting minutes shall be taken and made publicly available

Meeting (Definition): Gathering of a quorum for discussion or taking action.

- Includes informal gatherings at social functions or other meetings
- Includes teleconferences and e-mail threads

- Scheduling, agenda distribution are not meetings
- All written correspondence is subject to public records law
- Use of on-line collaboration tools (e.g. Google docs) could be considered a meeting. Recommendation is to not use these types of collaboration tools

Notice – requirements depend upon whether meeting is regular, special or emergency meeting

- Regular meeting – schedule established by bylaws or resolution
- Special meeting – any meeting not a regular meeting; notice 24h in advance (web site, commission members, local media, any other interested parties)
- Emergency meeting – no notice required; provide as much as possible

Agendas – Distributed to public 48 hours ahead of time (web site, Dept. of Libraries web site)

- Co-Chair Walke noted that Commission staff are currently handling notice and agenda for VCAC meetings

Minutes - to be published to internet w/in 5 (calendar) days of meeting

Secretary of State web site provides an open meeting guide, which can be found here:

<https://www.sec.state.vt.us/media/786069/oml-rev-sept-2016.pdf>

Subcommittees

- Recommendation to schedule all meetings in advance; ANR will manage notice requirements.

Commission members at other meetings:

- Use caution regarding commission member discussions about business of the commission at these types of events

#### **4. Commission Public Meeting Overview (Walke)**

Chair Walke provided an overview of the public meetings and thanked the Commissioners able to attend. There were over 275 attendees overall at the 4 meetings. There were 451 viewers of the Brattleboro meeting live stream.

The public offered many and varied ideas including but not limited to: additional clean energy, more support for electric vehicles, a focus on regenerative agriculture, concerns about renewable siting, and support for carbon pricing.

Meeting notes for all four meetings are being compiled for posting on internet; 3 of 4 videos are also available on-line.

Commission members that attended the meetings found the attendees to be passionate and informed. There were many well thought out suggestions. Some tension at times, but overall the meetings were civil. Attendees would like to see action.

The commission members discussed potential follow-up meetings. Ideas shared were possible additional public meetings between January and June 2018 (after first recommendations are made to governor, but before commission report); meetings at other state locations; possibility of a virtual or on-line

meeting; possibility of soliciting comment at this year's Youth Environmental Summit (this suggestion was referred to the Education-Communications-Outreach subcommittee).

## **5. Policy Option Matrix (Walke)**

Chair Walke noted that the policy option matrix is incomplete at this time. He had hoped to have it complete, but it is not yet final. He wanted to provide it to the Commission for discussion and include it in the working documents on the webpage prior to its completion. He asked for feedback and whether the other Commissioners believed this was an appropriate evaluation system.

Commissioner McGinnis circulated an idea "pitch" form for the upcoming Vermont Energy and Climate Summit (see Other Business for additional details on this summit).

## **6. Sector-specific subcommittee breakout sessions (All)**

Chair Walke provided brief instructions to the breakout groups. The goal of these sessions was to begin identifying core ideas (approximately three) that the subcommittees wanted to work on as possible submissions to the Governor by January 1, 2018. The Chair also provided some guidance to the Access to Capital Subcommittee that Ed Delhagen from the Public Service Department was present to discuss the Department's Clean Energy Finance Collaborative. Subcommittee notes will be appended to these minutes.

## **7. Cross-cutting subcommittee breakout sessions (All)**

Commissioners changed subcommittee groupings without discussion. Subcommittee notes will be appended to these minutes.

## **8. Breakout reports (Costello/Subcommittee leads)**

Each subcommittee lead provided a brief report on the results of the breakout sessions, identifying priority action items. See appended subcommittee notes.

### Power Production, Distribution, Use (Laberge)

Transforming energy future:

Microgrids, building codes, facility location/strategic siting, transportation energy supply, grid preparation, energy management

### Commercial/Residential Buildings (Stevens)

Weatherization

Technology – use to peak shave, manage w/storage or load management

Smart growth

### Transportation (Boomhower)

Increase efficiency of transit and school bus electrification

Incentives for EV in public sector – dealer, charging stations, rate structure

Car sharing – address insurance barrier

Utilizing underutilize transit

### Agriculture/Forestry/Waste/Industry (Walke)

Regenerative agriculture – removal of barriers  
Biomass to the next level/utilization of waste heat  
Local wood heat for more than just heating  
Capture/value Co-benefits of manure digestion (air quality, phosphorus management)

Access to capital (Carlson)

Leverage private/public partnerships  
Market-based solutions

Education/Communications/Outreach (Miller)

Total energy education packages and portals  
Opportunities for green job development  
Broad-based curriculum on climate change/energy K-12, with focus on early start

Rural Solutions (Sprayregen)

Village centers – create or revitalize  
Incentives for location efficiency  
Benefit of microgrids for resiliency/community energy  
Workforce diversification

R&D/Non-emission based climate actions (Costello)

Become a national proving ground for climate economy innovation  
Innovation ecosystem, includes Capital (incentives, tax credits, college credits, college cost forgiveness)

**9. Commission Discussion (Costello)**

Co-Chair Costello led a discussion about the ideas presented by the Subcommittees and any other business the Commissioners wished to discuss. Commissioners had comments and questions regarding the conduct of Commission business. They expressed a need to have the Commission do its work more efficiently. Some Commissioners have staff to assist with Commission work, while other do not. Sub-committee members asked for additional guidance on or examples of sub-committee and commission work products.

The Chair responded that ANR and other state agency staff are available to assist with Commission work. The Technical Advisory Group members are also available as a resource to the Commission. The proposals for January 1 can be for legislation or executive branch activity. The goal of the proposals is to identify actionable ideas that create momentum.

Commissioners noted that while identifying short-term, actionable items was important, the Commission shouldn't lose sight of longer term and potentially more impactful actions. Commissioner Miller wanted to make sure that the Commission considered carbon pricing during its review given its broad support during the public meetings. Sectors of particular interest mentioned by other Commissioners included agriculture, transportation, building energy/weatherization and biofuels.

Chair Walke noted that one activity is a review of existing executive orders regarding climate change, with the goal of identifying needed modifications or retirement. This review is currently underway, being performed by ANR staff, and will be provided to the Commission for discussion and direction.

## **10. Public Comments**

Jared Ulmer (Vermont Department of Health) – Please consider the health co-benefits of many of the proposed actions. \$2B a year is currently spent to treat chronic diseases in Vermont. If you reduce these costs via actions, this improves affordability.

Rick Wackernagel – There needs to be permanent capacity to manage the climate change process, either in or outside government. Activities include planning, due diligence, finance, coordination, monitoring outcomes. Need a body like this one for next 30 years

John Halaz – This commission should be constituted by legislation instead of by the executive so that it is on ongoing permanent commission. This is a long-haul effort.

**11. Review of August 15 minutes** – approved with two typographical corrections

## **12. Other Business**

Vermont Energy and Climate Summit 2017 – Commissioner McGinnis briefly described this upcoming event (November 8 at Champlain College). Due to budget constraints the event is currently limited to 200, by invitation only (Energy Action Network and Vermont Climate Pledge Coalition members, legislators). However, she would like to find a way to have as many Commissioners attend as possible. Chair Walke asked if afternoon session could be open to the public. Commissioner McGinnis will consider and inform the group.

**4:05 Adjourn**

## **SUBCOMMITTEE GROUP NOTES**

---

### **Power Production, Distribution and Use**

#### **Topics discussed:**

#### Overarching Theme: Transform Vermont's Energy Future

#### How?

- Solutions to remove obstacles,
- keep rates stable,
- develop microgrids,
- better manage the load to benefit residents and utilities,
- Expand/enhance energy storage capabilities – to better manage renewables on the grid
- Remember carbon reduction as a guiding principal

#### Transportation is a big issue for this section

- Need to transform to electric and low carbon fuels over time

#### Grid Preparation and Management

- For support for electric use for transportation
- Better utilization of power through the grid

#### Changes to Rate Design

- To promote changes in market and/or behavior change

#### Heating and Thermal

- Electric and biomass heat need to be part of the discussion

#### Create and support opportunities for new business models

#### Need incentives to develop renewables on buildings and contamination sites (brownfields & landfills)

#### Locate power generating facilities close and convenient to the energy demands

- Strategic Siting
- Could generate business development in designated growth/downtown area

#### Community Based Solar Solutions

- Help municipalities and schools with solar
- Solutions for renters and homes not suitable for solar

#### Determine the role of imported power in meeting state energy goals

#### Expand/enhance energy storage capabilities – to better manage renewables on the grid

Not discussed but mentioned: Wind Turbines

#### Target business sector specific solutions – (example: Agriculture)

#### Maximize existing investments and infrastructure (example: Northeast Kingdom)

**Ideas the subcommittee identified as ones that could be considered for January 1 recommendations to the Governor:**

More research and discussion is needed by the subcommittee.

---

---

**Commercial and Residential Buildings**

**Topics discussed:**

- The need for broadband for remote access for peak shave control.
- Weatherization (mentioned broadly a number of times)
- Deployed energy control systems to buildings (smoothing peak demand)
- Energy storage and battery storage
- Consider new vs. existing buildings when we bring houses up to code or retrofit.
- The need for ethical financing of homes to consider energy efficiency when financing.
- Alternative heating/cooling systems such as geothermal.
- More efficient heating: district heating is a potential.
- Smart growth to concentrate users in one area.
- Take a whole home approach: show the savings/increase in all energy needs (if you save money on oil, how much will a certain option add to your electric bill)
- Encourage smaller homes via subsidy or tie rebates and incentives to “X” number of people per square foot.
- The need for a trained workforce to do the work needed to improve building efficiency.
- Creation of programs to include education, building improvement, energy efficiency, and smart growth.
- Green financing expansion such as heat saver loans.
- Look for opportunities for public/nonprofit partnerships.

**Ideas the subcommittee identified as ones that could be considered for January 1 recommendations to the Governor:**

1. Technology: “smart buildings” for peak shave and energy storage via geothermal.
2. Smart growth: Realign state priorities to ensure states purchase products in local, smart growth areas.
3. Weatherization is a topic that should be investigated further but the group needed more information on which type of incentive would give the most “bang for your buck”.

---

---

**Transportation**

**Topics discussed:**

**Increase ownership of Electric Vehicles:**

- Incentives to both public and retailers
- Education and outreach to public and retailers
- Increase public and private charging stations (Personal Power Port, P3)
- Eliminate sales tax on EV/graduated income based to rebates for low income

Increase ownership of electric assist bikes

Alter electric rate structure to benefit EV charging stations

Home charging stations rate base vehicle to grid

Vt. Renewable Energy Standard Bill. H.40 - Tier 3 –

- expand to emphasize transportation
- incentives for accelerating EV ownership

Encourage fuel cell technology

Facilitate Car Sharing

- Address insurance issues that are currently a barrier
- Increase programs

Develop disincentive for using cars

Promote ECO/fuel efficient driving

Community Planning

- Develop walk/bike strategies that can be used in reviewing new developing (location of schools, health care facilities)
- Create downtowns that are useful, affordable and accessible
- Connect jobs with housing

Encourage more freight and passenger rail

Combine transit and school bus routes

Increase efficiency of public and school buses by transitioning aged vehicles to EVs

Increase public transportation in rural areas

Create neighborhood hubs

Enforce idling laws

Use street light technology

Use VW funds

### **Framework**

1. Change the way Vermont moves people, goods and services
2. Help Vermonters make transition to a new model of affordable transportation
3. Envision, Invest and Build Physical Infrastructure
4. Acknowledge the need to compete with conflicting needs within community: create solutions that make life easier, more affordable and relevant.

**Ideas the subcommittee identified as ones that could be considered for January 1 recommendations to the Governor:**

1. Increase efficiency of public buses and school buses



2. Provide incentives for accelerating EV adoption
3. Address Car Sharing insurance barriers

---

## Agriculture/Forestry/Waste/Industry

### **Topics discussed:**

#### Biomass fuels

- Wood heat
- Forest and forest economy health
- Credits/project development

#### Species diversity

#### Re-introduce American Chestnut Tree

#### Soil Carbon Sequestration

- Regenerative Agriculture
- Reached those that want to do the work
- Clean water funding criteria?
- Other incentives
- RAP compliance and more incentives
- Add soil carbon testing
- Educate landowners about available technology

#### Access to carbon credits

- Support NGOs that facilitate access

#### Anaerobic Digesters:

- ID more sites
- Water quality co-benefits of exporting nutrients
- Reached those that wanted to upfront
- Using energy for on farm needs
- Incentivize the ideal
- RPS should require farm methane as part of power purchase OR pay higher rate for Ads that bring in air emissions controls and nutrient removal

#### Measuring/quantifying carbon sequestration benefits

#### Organizing who is doing what or is already working

#### What are the barriers to meeting goals/implementation?

#### Technical Assistance

#### More food/Ag co-ops

**Ideas the subcommittee identified as ones that could be considered for January 1 recommendations to the Governor:**

1. Expanding wood heat and combined heat and power
2. Removing barriers / incentivizing activities that sequester carbon in soil
3. Value power produced ADs appropriately to recognize multiple public policy benefits

---

## Access to Capital

### **Topics discussed:**

#### What does “access to capital mean?”

Simply: money that helps you do stuff

1. Revenue (bring in new funds)
2. Re-allocating existing funds by reducing in other areas.
3. Pooling resources for increased leverage and efficiency

#### Impact Investment

Attracting investment money through good ideas

#### What are the existing models for distributing funds?

- Ex. V-green or other funding sources

#### Increase access to federal tax credits to fund markets and services to reduce carbon emissions

#### More coordination to leverage private lending

#### Raise the gas tax to generate revenue

#### Carbon Tax

- Not discussed in detail but flagged for future consideration by the sub-committee

#### RE-allocate current RGGI funding –

- ex. current RGGI funds could provide weatherization for 10,000 homes per year.

#### Incentives for Solar

#### Develop market based mechanisms to raise capital

#### Create a statewide revolving loan fund,

- State would access funds projects to reduce carbon emissions through a loan program to all (homeowners, middle class, small businesses, municipalities)

#### Public Service Department is leading a stakeholder group – “Finance Collaborative”

- What is the role of finance in clean energy?
- The group has only met once
- A report if the committee’s findings is scheduled to come out in the spring

**Ideas the subcommittee identified as ones that could be considered for January 1 recommendations to the Governor:**

1. Leverage to access capital from private entities
2. Consider re-allocating existing revenue sources (ex. RGGI)
3. Market based approach

---

---

**Education, Communication and Outreach**

**Topics discussed:**

- Early education related to the carbon cycle, etc.
- Consumer education with objective advice on financing and recommendations that consumers can understand.
- The need for an “Energy 211”-type clearinghouse
- Outreach to build trust with consumers.
- The creation of supporting a total energy “one stop shop” for information and policy to support it.
- Encourage the use of technology and apps to help inform consumers.
- Build upon existing entities such as town energy committees and RPCs and invest in them.
- The need to hire energy coordinators or navigators to assist consumers.
- Do outreach outside of Vermont to attract “climate refugees”: encourage those who are looking for a location without hurricanes and other climate-related disasters to come here. This would be an answer to declining population.
- The need to do more quality of life messaging so consumers consider “green” purchases based on more than the financial impacts.
- The need to make energy technology or engineering available, and better yet, mandatory for high schoolers.
- Educate consumers about “first cost shock” and do a better job calculating long term savings and financing options.
- Educate about existing opportunities and incentives (Efficiency Vermont) that may not be well understood.
- Educate car dealers re: Electric vehicles. Don’t call them “plug in stations”, call them hospitality centers.
- Education Vermont legislators on climate issues.
- The need for more capacity within agencies to coordinate and communicate on climate issues.
- The need for education to show multi-benefits of climate improvement (health, economics, education, work force, housing, etc.)
- Need to education trusted sources that are already in the homes of consumers such as Meals on Wheels.
- The need for family planning education (less people=less people to account for)
- Workforce development for green jobs, including the creation of tech centers.

**Ideas the subcommittee identified as ones that could be considered for January 1 recommendations to the Governor:**

1. Total energy education package/portal (one-stop shop, educating RPCS, Energy commissions, energy 211, trusted non-profits)
2. Green job development: green tech centers and high school technology and engineering classes
3. Broad-based curriculum on climate issues from elementary through high school, legislature, and the intersection of environment and economy.

---

---

## **Rural Solutions**

### **Topics discussed:**

#### **Building Thriving Rural Centers**

- Build community
- Infrastructure issues
- Microgrids/resiliency/community-democratic energy

#### **Location efficiency – incentivizing community-centered living (mortgages)**

#### **Need to be sensitivity to higher energy burden communities**

#### **Workforce skill diversification**

- Creating swiss army knife workforce

#### **Home energy disclosure/rating**

#### **High speed internet/wireless availability**

#### **Leverage the work of existing groups:**

- VLCT
- RPCs
- VCRD

#### **Major limiting factor: driving kids around**

### **Ideas the subcommittee identified as ones that could be considered for January 1 recommendations to the Governor:**

1. Community energy/Microgrids
2. Location efficiency incentives
3. Workforce skill diversification

---

---

## **Research and Development/ Non-emission based climate actions**

The group framed the R & D issue as how to make Vermont a “National Proving Ground for Climate Innovation.” In this way R&D was looked at more through an energizing economic development, business investment in a Vermont climate economy that could support green jobs and the people of Vermont to stay and live here.

**Topics discussed:**

**INCENTIVIZING CLIMATE BUSINESSES**

- Capital. How to access it or tax it differently to support VT Climate Economy
- For example, Tax credit for R&D such as, no corporate business tax for ~5 years for VT climate econ. businesses
- Income tax credits/loan forgiveness or education vouchers at VT educational institutions for VT Climate economy employees; both for building innovation and climate skills (such as blue collar education like weatherization and building science)
- Capital gains relief for any climate related biz that stays in Vermont for X amount of time.
- Extra incentives (tax relief) for innovations that deploy in VT
- Such as no sales tax for consumers for climate products that are deployed in VT.
- Look at copying CA model of 20% bid weighting incentive for VT based climate economy projects.

**FUNDING CLIMATE BUSINESSES**

- Create an R&D fund or broaden the Clean Energy Development Fund, to create a fund for climate economy to support existing and new climate business
- Leverage the Milk Money model with incentives and tax deferral that could attract venture capital to Vermont: build an R&D climate economy fund.
  - Do this by:
    - Eliminating state taxes on R&D
    - Changing regulatory structure around investment in VT
    - Create safety for high returns in climate economy enterprises
    - Through preferential tax treatment

**OTHER THEMES**

- Build Climate enhancement R&D into higher education
- Evaluate need/demand for startup space. What is needed to make best use of these spaces?
  - Collective marketing of incubation R&D spaces.
- Declare the intent, tell the story, and market Vermont as a climate economy destination.