

## Data and Science Subcommittee Meeting of the Vermont Climate Council

August 30<sup>th</sup>, 2023

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Subcommittee members present: Jared Duval, Collin Smythe, Catherine Lowther, Claire Mcilvennie, Lesley-Ann Dupigny-Giroux, Ken Jones, Richard Hopkins, Jay Shafer

State staff present: Adam Jacobs, Andrea Wright, Brian Woods

Others present: Dylan Zwicky, Lena Stier, Dylan Giambatista

Note taker: Elizabeth Palchak

- Approval of minutes
  - February 1<sup>st</sup>, 2023
  - April 26<sup>th</sup>, 2023
  - Both sets of minutes approved
- Social Cost of Carbon presentation and recording
  - Summer intern at EAN
  - Current cost of carbon in the VT CAP - \$121
  - Research from the EPA estimates closer to \$190/per metric tonne
- Life-cycle analysis
  - The subcommittee was not able to find a TEK expert to inform the life-cycle analysis
  - GREET model is the framework that will most likely be used - will tailor this to Vermont's needs
  - End of October - Energy Resources Group is doing this work
    - When is the deliverable due?
      - No firm date
- Agricultural tool comparison contract
  - ICF doing this work
  - Developed a matrix to help us understand which tools would be the most effective
  - Task group is ANR and Agency of Agriculture
  - We might use the SIT model - State Inventory Tool
  - Richard: what's the line between Forestry and Agriculture?
  - Many farmers manage forests, too
  - How do we incorporate the benefit of maple production?
  - Jared: one concern is the difference in confidence we can have based on the models and datasets used
    - In energy models, we're using data and emissions factors based on actual usage, but estimating impact from agriculture by necessity has a greater range of uncertainty
    - Collin: yes, the land-use component on an annual basis is very challenging to capture; ICF was looking at the nutrient management plans on farms - capturing the animal and manure management piece is going to be a big improvement and we anticipate the ability to do this
    - Richard: feeling under informed on this issue, could we interview farmers individually about how they're managing their farms?

- Thermal RFP
  - Jane and Brian are working on this
  - LEAP model has been developed to capture emissions from cars, etc.
  - Reduction of modeled emissions in 2030
  - Draft submitted to project team
  - Ken: for the 2025 target...suggests not a big need for Clean Heat credits in the early stage, it does not seem that we are on track if we incorporate the reduced number of heating degree days, however it's hard to believe that we're on track
    - Not seen significant changes in fossil fuel water heaters
  - Jared: the intent of the language is that the 2030 target is the first target that's applicable.
    - This year noted a significant difference b/t the heat pump water heaters installed as report by EVT vs. what's in the LEAP model - in the LEAP model is data from a self-reported survey on heat pump installations.
    - Draft report from thermal report will go to project team in early September - what does this mean, exactly? Is this the Task Group or a different group?
  - Municipal Vulnerability Index
    - On the agenda, Jane and Marian are not available today
  - Climate Pollution Reduction Grant process
    - The process occurring right now - EPA is putting out guidance
    - Collecting information from the Climate Action Plan to pull together actions that are in the current CAP to provide updates on actions
      - Would this benefit from additional funding under the CPRG process?
    - Jared: the language "shovel ready" is challenging if most of our emissions come from individual transportation and heating systems - what incentives exist to help individuals make the necessary changes?
      - Collin: almost all of the project proposals will come from the Climate Action Plan
  - Public comment
    - No public comment
  - Discussion on S&D and next CAP planning process
    - Would we like support in developing a work plan for the next CAP (due 2025)?
      - We could get support from CBI
    - Jared: helpful to get facilitation support instead of leading a meeting or trying to take notes
    - Elizabeth and Claire: yes, this is a good idea
    - Catherine: one part of the S&D work plan could include behavioral science
    - Jared will move forward in proposing this
  - Next meeting is Friday September 29th - a Friday, following meeting is Wednesday October 25th
    - Ken: Next question for the next version of the CAP is where is the greatest sensitivity in the former CAP, what needs additional review?
      - Heat pump utilization data and analysis
        - Are people using them correctly and how much?
      - Wood
        - The linkage b/t harvesting and wood being used for processes...how is this affecting the harvest practice and

ultimately the carbon content? We haven't done enough to analyze these details.

- Richard: The existing plan is hard to read. Where exactly does the current plan call for action and where is it describing the current state?
- Catherine: Teach people how to do their own GHG inventory
- Jared: What data do we have and what will be needed? Mitigation - when will the next inventory be published? Will there be time and funds to do another update from BAU? What can we produce? What can be contracted?
- Ken: What is the status of the performance management piece, status reporting? Where is this?
  - Jared: the Measuring Progress Tool
    - This is still in the RFP phase...awaiting sign off on this.
    - The process for this tool is going to take a while.
  - Ken: This process needs to move forward quickly. We're going to need this.
  - Claire: Inventory of what we have and what we don't...there are equity components here, analyzing benefits and burdens and any recommendations that come out of this plan. How do we want to be analyzing the data so that we understand how these recommendations are impacting communities.
  - Jared: It would be helpful to have a subcommittee self-assessment - areas of expertise and experience. We want to understand what individual members hope to contribute to this group.
    - There's a "what" component of what we do and a "how" piece...
  - Catherine: Used to teach a course in GHG inventories...will email some information.
  - Elizabeth: To what degree can we include university students moving forward?
- Additional Public Comment
- Scheduling meetings
  - Ken: Let's reschedule our September meeting
  - Lesley-Ann: Will this meeting time work for our student representative?
    - Collin: Unsure but will confirm
- Adjourn at 2:31pm