

Science and Data Subcommittee of the Vermont Climate Council
2:00 PM September 29, 2021
Meeting Notes

Location: Physical location at ANR office in Montpelier; meeting was recorded and [posted online](#).

S&D Subcommittee Members Present: TJ Poor, Jared Duval, Secretary Julie Moore, Richard Hopkins, Dr. Lesley-Ann Dupigny-Giroux; Lou Cercere, Jay Shafer

Absent S&D Subcommittee Members: Brian Gray,

State Agency Staff Present: Jane Lazorchak, ANR; Marian Wolz, ANR; Karen Blakelock, AoT; Brian Woods, NY DEC;; Megan O'Toole, VT DEC; Colin Smthye, VT DEC; Bennet Leon, VT DEC

Consultants: Catherine Morris, CBI

Others: Claire McIlvenie, Mark Whitworth, Matt Voss, Mei Butler, Danielle Bombardier

2:05 Welcome/ Review of Agenda/ Approval of Minutes (S&D Co-Chairs)

TJ Poor opened the meeting and the Subcommittee approved the minutes of the prior two meetings. Amendments to the order of the agenda were accepted.

2:08 Update from Presentation of Technical Feasibility and Cost-Effectiveness Definitions to Climate Council (TJ Poor, Co-Chair)

The definition of **Technological Feasibility** was adopted by Council.

Council members raised concerns over the **definition of Cost-effectiveness**: 1) lack of clarity on desired outcomes for resilience and adaptation; 2) how should Subcommittee members use cost-effectiveness (high, moderate, and low) in ranking actions.

Jane Lazorchak described the status of guidance for prioritization and the use of these definitions within the guidance. The Steering Committee has decided there is a need to bring forward definitions of co-benefits and impact in addition to cost-effectiveness and technological feasibility.

Jane presented draft definitions of "Impact" for use by Cross-Sector Mitigation and another for use by Resilience and Adaptation Subcommittees, along with a scale for determining "High, Moderate, and Low" impacts. She noted that all actions will be included in the final report, but actions ranked as having low impact will be addressed in an appendix. There will also be a place for individual actions that collectively make an impact but are not governmental actions and will not go through the ranking process.

Jane also presented a revised definition of Cost-effectiveness for Mitigation and clarification of how High, Moderate and Low Cost-effectiveness should be interpreted. Cost-effectiveness was defined as:

"lifetime net cost per ton of GHG emissions reduced (acknowledging that some mitigation measures do not generate net costs and actually save money). Cost-effectiveness shall be understood to account for lifetime or dynamic costs, not merely up-front or static costs."

- *High* cost-effectiveness was defined as "actions that have a net savings per ton of GHG reduced"

- *Moderate* cost-effectiveness applies to “action that break even per ton of GHG reduced”
- *Low* cost-effectiveness means “actions that have a net cost per ton of GHG reduced”

The proposed definition also included the following clarification:

“...In determining cost-effectiveness, estimated benefits and costs shall be inclusive of the direct and indirect benefits and costs to Vermont and Vermonters (i.e., “resource benefits and costs” for the State, including program implementation and management costs, not simply the “consumer costs and benefits”). Benefit cost analysis shall estimate social and environmental externalities”, including health costs and benefits and a Social Cost of Carbon, reflecting the global damage-based assessment of the cost of Vermont’s climate pollution, consistent with the Social Cost of Carbon report and recommendations presented to the Climate Council on August 23, 2021.”

Richard noted his objection to the definition proposing that “net savings” be replaced by “low costs” in defining “Low Cost-effectiveness” because he felt that the definition mixed the concepts of cost-effectiveness and benefit-cost analysis. No consensus could be reached. Because there was not consensus on the definition, Jared moved and it was seconded that the Subcommittee vote on adoption of the proposed language as amended by TJ Poor to add back the language from the original definition that acknowledges different perspectives on cost-effectiveness. The proposed definition as described above was adopted by majority vote: 4 yes, 1 abstention, 1 no, and 2 not present for the vote.

3:15 Update on A&E Subcommittee amendments to GHG Inventory recommendations (Jared Duval) Jared reported on the concerns of the Ag & Ecosystems Subcommittee on how agriculture emissions are handled in the GHG inventory. He shared the language presented by Ag & Ecosystems Subcommittee to amend the Science & Data Subcommittee GHG inventory recommendations to the Council. Jared noted that the proposed language was slightly revised by the GHG Inventory Task Force.

After discussion, the S&D Subcommittee decided to partially accept the language proposed as shown below in red:

1) Develop and issue **one or more** Request(s) for Information (RFI) regarding questions related to

a. Conducting upstream and/or lifecycle accounting of emissions related to the use of energy in Vermont, including those emissions that occur outside the boundaries of the state, as called for in section 578(a) of the GWSA. Note: this should include emissions related to *all* energy use (including but not limited to fuels used for transportation and heating), not just electricity.

This should include a discussion and recommendation of the appropriate bounding/boundaries for such an upstream and/or lifecycle analysis and an assessment of the resources that may be necessary to conduct the analysis.

b. Methodological gaps of emission inventory tools currently used by the State of Vermont to quantify greenhouse gas emissions for evaluating changes in the agriculture and related land use sectors and the tools’ alignment with the Intergovernmental Panel on Climate Change (IPCC), Environmental Protection Agency (EPA), and peer state methodologies and approaches.

Jared agreed to share the new proposed language with Ag & Ecosystems Subcommittee.

3:50 Proportional Reductions in Emissions – Statutory Clarity (Jared Duval)

The subcommittee also discussed language to forward to the Council on how proportionality is considered to address concerns raised in discussions with Ag & Ecosystems Subcommittee. Megan O’Toole said her legal interpretation was that the GWSA does not specify the priority of one criterion over another; however, she suggested that the Council could for policy purposes determine a relative priority among the criteria.

The S&D SC agreed that they would recommend to the Council an interpretation of the GWSA that makes it clear that proportionality should not take precedence over other considerations such as cost-effectiveness and equity. They agreed to convene a subgroup to discuss drafting the appropriate language.

4:10 Public Comments

Mark Whitworth urged the Subcommittee to give further consideration to Richard Hopkin’s comments on cost-effectiveness. He also appreciated the remarks of Secretary Moore that the Council should use its discretion in interpreting the best way to meet the legislative targets, and supported the Council putting forward changes to the legislation that would make it more effective and beneficial for Vermont.

4:15 Next Steps and Adjourn

A meeting may be needed next week to cover items not covered this week.

Jared reviewed the schedule for CAP drafting to be confirmed by Jane via email.

DRAFT