

Clean Heat Standard Technical Advisory Group
April 18, 2024, DRAFT Meeting Minutes

Attendees

- Members of the Technical Advisory Group present
 - Matthew Bakerpoole (on behalf of TJ Poor), Vermont Department of Public Service
 - Matt Cota, Meadow Hill Consulting
 - Luce Hillman, University of Vermont
 - Ken Jones, Individual
 - Casey Lamont, Burlington Electric Department
 - Sam Lehr, Coalition for Renewable Natural Gas
 - Emily Levin, Northeast States Coordinated Air Use Management
 - Emily Roscoe, Efficiency Vermont
 - Jared Ulmer, Vermont Department of Health
 - Floyd Vergara, Clean Fuels Alliance America
 - Rick Weston, Individual
 - Patrick Wood, Ag Methane Advisors
 - Brian Woods, Vermont Agency of Natural Resources
- Facilitator
 - Catherine Morris, Consensus Building Institute
- Participating Vermont Public Utility Commission staff
 - Deirdre Morris

Welcome & Review of agenda [Time Stamp 0:00:00]

- Initiate recording

Review and approval of 4/4/24 meeting minutes [Time Stamp 0:01:34]

[Ken Jones moved to approve the 4/4/24 minutes. Matthew Bakerpoole seconded. Brian Woods abstained. None opposed. Minutes approved at 9:35 am.]

Updates from the PUC [Time Stamp 0:03:05]

- General updates
 - Response from PUC on TAG vacancy
 - Update on Opinion Dynamics progress

[PUC will accept applications for the open TAG seat. Deirdre will share the PUC's solicitation for the seat with the group once it's posted. Opinion Dynamics is on schedule to have the measure structure early deliverable on May 3. A measure list should also be available soon.]

TAG Task schedule and updated DPS flowchart (shared in advance) [Time Stamp 0:08:15]

[Visualization of the work TAG needs to complete in the upcoming months. Work in progress and slight revisions needed but otherwise representative of when/what TAG should be working

on. Members can provide feedback to Deirdre if there are thoughts on sequence of tasks or what is needed (“dependencies”) to complete tasks.]

Discussion of other Breakout groups needed [Time Stamp 0:13:30]

[Additional possible breakout groups: Process for setting declining carbon intensity values, and aligning LCA and the GHG inventory. Floyd offered to do a brief presentation to the group that explained how carbon intensity values are set in California’s Low Carbon Fuel Standard.]

[Ken Jones made a motion for the “TAG to send a recommendation to the PUC that the date of 1st obligation cannot be before January 2026. After review of tasks necessary to implement CHS, we feel we cannot complete the tasks that would allow obligation prior to January 2026.” 8 in favor. 3 abstained. None opposed. Motion passes by majority vote at 10:32 am.]

Equity Advisory Group Report [Time Stamp 0:59:00]

- Other updates

[EAG will soon share their equity framework with TAG – they recommend using this in TAG’s decision-making. EAG will be sending recommendations on the credit ownership straw proposal to the PUC soon. TAG leadership will share Emily’s memo on income verification methodology with the group.]

Break [Time Stamp 1:04:00]

Breakout groups [Time Stamp 1:13:30]

- Credit ownership
- Bioenergy

Role of the public during breakout session

NOTE: Pacing group will reschedule to meet before the next TAG meeting. Members of Pacing group welcome to join other two groups.

Report back from Breakout sessions [Time Stamp 1:19:40]

Credit ownership (provided by Rick Weston)

Initial discussion points:

- *How and why a credit is created (or “minted”) directly affect determinations of the credit’s “ownership”. It is reasonable to differentiate among the means of credit creation, therefore: Installed measures; Delivered fuels; Regulated v. unregulated fuels; PUC- and other government-directed programs: i.e., end-use efficiency, Tier 3, and weatherization*
- *The question of how a credit, once minted, moves “upstream,” that is, how obligated parties acquire them, was raised. Although this is not directly a matter of “ownership,”*

it is relevant to the purposes of the CHS program and how it will work, and therefore may have practical implications for determining ownership.

- *Delivered products: What is in the product mix (e.g., what percentage is biofuel)? Should actions taken by the supplier and be differentiated from voluntary (incremental) purchases by customers (and should regulated deliveries, e.g. Vermont Gas, be treated differently than unregulated fuel suppliers)*

Questions from the PUC staff proposal:

- *Should a different methodology be applied to pipeline renewable natural gas deliveries?*
 - *Arguments favoring a “Yes” response to the question were debated. The blend of pipeline gas will be a decision of the gas distribution company; credits minted by virtue of the default blend of the pipeline gas should be owned by the gas company. Credits created by voluntary purchases of renewable natural gas should belong to the customer.*
 - *Credits associated with the biofuel content of unregulated fuels should belong to the delivery agent (typically, the fuel dealer; who happens to be an obligated party). The question of how to treat voluntary purchases of biofuels was discussed but not fully resolved. The argument was made that such purchases will be unlikely as a practical matter and that therefore this won't be an issue—at least not at first, but which will later be resolved by contractual means.*
- *Should all credits for installed and delivered measures be awarded to customers?*
 - *Here the question of causation revolved around customer-initiated actions and those enabled by government programs. Credits created by customer decisions should go to the customer; there was general consensus on this point. How should credits created by investments in installed measures funded in whole or part by government programs be treated? Should they go, for instance, directly to the DDA, which would then sell them to finance additional credit-creating activities? The group was not of one mind on this; this will require further discussion.*
- *We did not have time to discuss the two remaining questions that the PUC staff posed in its straw proposal.*

Action item: Rick Weston will begin drafting a document that will frame the issues and their various and alternative resolutions. It will be used to guide on-going discussions of the breakout group and could possibly form the basis of a TAG statement.

Bioenergy (provided by Ken Jones)

- *The first part of our discussion focused on the relationship between Life Cycle Assessment determination of the greenhouse gas emissions from different energy pathways compared to the inventory-based determination.*
 - *The group largely agreed that our effort will be to focus on the Life Cycle Assessment values from the different bioenergy pathways. However, there is a need to emphasize that the full Clean Heat Measure rule making process, especially the pacing of credit retirement will need to go through a modeling exercise that applies the credit value as determined by Life Cycle Assessment to the reductions as measured by the State's Greenhouse Gas Inventory in order to ensure that the retirement schedule is getting the emissions reduction as defined in the Global Warming Solutions Act.*
 - *Some in the group want to be clear that this reconciliation process is not intended to change the methodology for creating the State's inventory.*
 - *Earlier this year, the Public Service Department outlined an approach for carrying out the reconciliation and the full TAG may want to re-visit that document as we move forward on the credit retirement pacing task.*

- *The next part of the discussion focused on wood heat. "Advanced Wood Heat" is included in statute as an example of a clean heat measure that needs to be characterized and yet, the statute does not have specific definitions around what is and is not Advanced Wood Heat. Because the use of cord wood is such a significant contributor to meeting Vermont's thermal needs, this project will need to consider whether cord wood combustion may count as a Clean Heat Measure.*
 - *Opinion Dynamics will be developing its preliminary list of clean heat measures and on the delivered measure side, they will include the different types of bioenergy fuels that they intend to pursue and both for their work and for the work of the PSD consultants, it is presumed that the development of Carbon Intensity values will be central to their work.*
 - *This break out group and the TAG as a whole will be a part of the review process as the early work of the consultants becomes available.*

- *The third part of the discussion reviewed the different examples of carbon intensity calculations that have been carried out in other jurisdictions in the US. One observation that arises is that there are both "default fuel pathways" that assign a single value of carbon intensity to a defined fuel type and much more specific calculations based on the actual production of a bio energy fuel from feedstock through processing and transportation. The more specific calculations will highlight over time, any progress in efficiencies for fuel production.*
 - *In Vermont, we may want to consider, both establishing default fuel pathway carbon intensity values and developing a framework to allow new projects to establish specific carbon intensity values if new processes may yield a lower carbon intensity project.*
 - *A parallel was introduced for the determination of carbon intensity of electricity use. There are at least two different ways to determine carbon intensity for electricity use in Vermont. One is based on the ISO NE mix of electricity generation that is available to Vermont and the other is the state's portfolio (after RECS). While it is*

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not going to be the role of this breakout group to evaluate the two or more options for considering the impacts of electrification, this evaluation will be necessary so that the PUC can provide guidance to both the PUC and PSD consultants as they carry out their work in measure characterization.

- *The final discussion was based on the recognition that, just as seen in Oregon and California, there are a large number of fuel pathways and measures to be considered. One way to consider a large list is to determine the “materiality” of those pathways and measures in order to highlight those that have the greatest potential to reduce greenhouse gas emissions in Vermont. As we receive the lists of measures, we will want to consider how to consider the materiality of each in order to focus our resources on those that have the greatest opportunity for carbon reduction and the greatest cost effectiveness in carbon reduction.*

Public Comments [Time Stamp 1:34:29]

[Request that the public has more opportunity to engage and has access to all group materials; Concern expressed that GREET is an inappropriate methodology, particularly for its accounting of bioenergy; Request that a transcript be provided for accessibility (suggestion given that YouTube offers closed captioning on uploaded recordings); Suggestion that outside experts be invited by TAG members.]

Other Matters [Time Stamp 1:49:40]

- Agenda topics for next meeting – Thurs., May 2, 9:30 – 12:30

[Floyd to present on carbon intensity value setting in California’s LCFS; TAG leadership will discuss further agenda items for the next meeting.]

Close

Meeting adjourned at 12:34 PM.

Full-group recording:

https://www.youtube.com/watch?v=kgmH_Npq7_8&list=PLm7FHMU9GY9R_zhQEp6UJf8imn92o7Srd&index=9

Credit ownership recording:

https://www.youtube.com/watch?v=p_EakOoVaJs&list=PLm7FHMU9GY9R_zhQEp6UJf8imn92o7Srd&index=10

Bioenergy recording: awaiting access link (can be found [here](#) once uploaded)