

Clean Heat Standard Technical Advisory Group

Statement of the Technical Advisory Group (TAG) on, (1) coordination of the Clean Heat Standard (CHS) with other programs, (2) adjusting credit values of clean heat measures over time so as to not double-count emissions reductions, and (3) coordinating with the Agency of Natural Resources to ensure that greenhouse gas emissions reductions achieved in another sector through the implementation of the Clean Heat Standard are not double-counted in the Vermont Greenhouse Gas Emissions Inventory and Forecast.

A. Coordination of the CHS with Other Programs pursuant to 30 VSA §§8128(a)(6)

Act 18 states that “All eligible clean heat measures that are delivered in Vermont beginning on January 1, 2023, shall be eligible for clean heat credits and may be retired and count towards an obligated party’s emission reduction obligations, regardless of who creates or delivers them and regardless of whether their creation or delivery was required or funded in whole or in part by other federal or State policies and programs.”¹

The TAG is tasked with “facilitating the [CHS’s] coordination with other programs”² eligible to earn clean heat credits, which we interpret to mean advising the Vermont Public Utility Commission on opportunities for coordination, obstacles to coordination, and recommendations for improving coordination among the affected programs.

We begin by describing the overarching principles that guide our consideration. The CHS should not harm the implementation of, and value created by, other programs delivering energy services to Vermont customers. The CHS should complement, support, and increase the beneficial impacts of other programs.

We see at least two dimensions of coordination. One is informational, which has to do with understanding the impacts of the various programs and how they can affect CHS design and emissions reductions targets. Consistency of data, assumptions, and analytical methods among the programs will be critical. The second is administrative—recognizing how the various programs work together (or don’t) and finding ways to enhance their efficiency and efficacy.

1. Information

A first step, then, is to identify other programs delivering eligible clean heat measures and develop an accounting of their annual greenhouse gas (GHG) emissions reductions. Act 18 identifies three such programs—Vermont’s energy efficiency programs, the low-income weatherization program, and the Renewable Energy Standard Tier 3 program—but the list is not intended to be exhaustive.

The accounting of the GHG reductions that such programs achieve will, when compared to the annual targets for the RCI sector mandated by the Global Warming Solutions Act, reveal the magnitude of incremental reductions (i.e., “the gap”) that the CHS will need to achieve. Today, the energy efficiency and Tier 3 programs file annual reports of energy savings and estimates of

¹ 30 VSA §§8127(k)(1). It goes on to say, “This includes individual initiatives, emission reductions resulting from the State’s energy efficiency programs, the low-income weatherization program, and the Renewable Energy Standard Tier 3 program. Clean heat measures delivered or installed pursuant to any local, State, or federal program or policy may count both towards goals or requirements of such programs and policies and be eligible clean heat measures that count towards the emission reduction obligations of this chapter.”

² 30 VSA §§8128(a)(6).

GHG reductions, which are calculated based on the measure characterizations in their respective technical resource manuals (TRMs). It is critical, therefore, that the TRMs for these programs and that of the CHS be consistent with each other. The emissions reductions of weatherization measures are currently under development for the CHS TRM; these estimates, in combination with data from the Office of Economic Opportunity (OEO) on weatherization services delivered, can provide an annual GHG accounting for the weatherization programs.³

This will create opportunities for coordinated planning among the programs and the DDA. And it will be necessary to ensure consistency among the CHS TRM (and, by extension, the other TRMs) and the assumptions and data used by the Science and Data Subcommittee of the Vermont Climate Council.

Other activities, especially any related to bio- and renewable fuels, will also need to be accounted for. For example, entities that sell only bio- or renewable fuels are not obligated parties and therefore are not in the PUC registry. Accounting for them in the default delivery agent's (DDA's) budgeting will need to be addressed.

2. Administration

The administration of the CHS should not impede, but rather dovetail with, the administration of other programs. Already there is significant coordination and shared infrastructure among efficiency, weatherization, and Tier 3 activities of which the CHS can take advantage. We expect that significant components of this coordination will be addressed in the establishment and institutional structure of the DDA and in the means by which creditable activities are identified, "time-stamped," and kept track of. A critical element of this is the question of initial credit ownership, a topic on which the TAG has already spoken. Ensuring that creditable activities earn only the credits they actually create, no more nor less, so as to prevent the multiple counting of emissions reductions will be imperative.

Other matters that will deserve attention at some point include the following:

- LIHEAP. The Low-Income Home Energy Assistance Program is likely to be affected by improved efficiency of energy use driven by the CHS.
- Other federal programs, such as tax credits for installation of clean heat measures (e.g., heat pumps). Their emissions impacts should be accounted for, as described in the previous subsection, but there may also be program implementation questions that they raise.
- State Planning. The Climate Council's Climate Action Plan and the Department of Public Service Comprehensive Energy Plan need to be developed in a coordinated and analytically consistent manner, especially with respect to inputs, assumptions, methodologies, and state policy goals.
- Changes in building codes, for instance the possible adoption of a net-zero-ready requirement by 2030. Will compliance with the code produce CHS credits?

3. Coordination: Conclusion

This statement identifies what we believe to be critical nexuses for coordination of the CHS implementation and administration with other programmatic activities that will deliver eligible

³ We note also that savings estimates of low-income weatherization may be driven by federal requirements, which will likely need to be aligned, or reconciled, with the CHS. Likewise, the estimation methods of OEO, which performs on-site verification of installed weatherization measures, and Efficiency Vermont, which typically uses mathematical models, will also need to be reconciled with the CHS.

clean heat measures. All efforts should be made to reduce “friction” among the programs, streamline compliance and reporting, and leverage their activities for the benefit of all.

The TAG recommends that the PUC initiate, as soon as possible, the process for registering creditable activities to date, estimating their emissions impacts, cataloguing them according to their causes and incentives, if any (i.e., whether efficiency, weatherization, Tier 3, or something else), and addressing unresolved claims to credit ownership.

B. Adjusting Credit Values to Avoid Double-Counting, pursuant to 30 VSA §§8128(a)(5)

Act 18 charges the TAG with “establishing credit values for each year over a clean heat measure’s expected life, including adjustments to account for increasing interactions between clean heat measures over time so as to not double-count emission reductions.”⁴

We see that there is a potential for the double-counting (or, in some cases, over-counting) of emissions reductions from interactions among clean heat measures in homes and businesses. It appears to lie primarily in the differences in accounting for emissions reductions between installed and delivered measures (i.e., bio- and renewable fuels) and also possibly in competing claims to emissions reductions resulting from two or more incentives from different sources, “layered” on the same clean heat measure.

Consider, by way of one example, the case of a heat pump installed in a residence that has an oil-fired boiler. The heat pump will serve only part of the heating load. In Year 1 the measure is installed and it receives time-stamped credits for a specified period (e.g., three years). These credits calculated as the product of the emissions/gallon of Vermont’s average fossil-fuel mix and the expected gallons avoided by the heat pump (net of any GHG emissions associated with the electricity serving the heat pump). Later, say in Year 3, the residence switches from fuel oil to B-100. The potential problem, then, is that the heat pump continues to receive credit based on the average fuel-mix carbon intensity rather than the actual fuel’s carbon intensity. Whether this sort of divergence will have a material effect on the emissions reductions of the CHS in the aggregate and for how long will depend on number of factors, which relate primarily to the availability of data, the duration of time-stamped credits, and the timing of adjustments to the average fuel mix and the credit values of installed measures.

Solutions to the problem will increase the administrative complexity of the program. At this time, the TAG makes no judgment about the potential magnitude of double-counting (and, similarly, under- and over-counting) of emissions reductions, nor any recommendations for how to minimize it. We will, as continuing work with the PUC’s consultant and comments from parties to the proceedings shine light on the matter, consider administrative and reporting requirements that could be implemented to address it.

C. Avoiding Sectoral Double-Counting of CHS Emissions Reductions, pursuant to 30 VSA §§8128(a)(9)

The TAG is directed to work with the Agency of Natural Resources [ANR] to make sure that GHG emissions reductions achieved in other sectors (for instance, agriculture) as a consequence of the CHS are not double counted in the state’s GHG emissions inventory and forecast.⁵

The TAG is alert to this issue. ANR is represented on the TAG. Based on our current understanding of the inventory and the CHS program, the TAG does not see how sectoral

⁴ 30 VSA §§8128(a)(5).

⁵ 30 VSA §§8128(a)(9).

double-counting of emissions reductions can occur. We will remain open to the possibility, however, as we await further information from the PUC's consultant and parties to the proceedings.

Approved by motion and vote, 22 August 2024.

Frederick Weston, Chair