**To:** VT PUC and Opinion Dynamics

**Fr:** CHS Technical Advisory Group **(**TAG) members

**Re:** Follow-up to Opinion Dynamics Responses to the TAG 9/26 questions/comments re draft TRM

**Dt:** 10/29/24

**Below is a summary of the TAG members’ discussion, comments and remaining questions regarding Opinion Dynamic’s draft TRM.**

### Installed measures

1. **New construction** – The OD suggestion that new construction measures not be included in the TRM is incomplete. **The question remains as to whether new building construction that includes the installation of clean heat measures should be eligible for clean heat credits.**

* If the answer is “no” then the data required for assigning credits will need to include a determination of whether the building is new construction (and possibly including building additions).
* If the answer is “yes” then the PUC will need to incorporate new building stock additions in their determination of annual reduction targets and the corresponding requirements for credit retirement.
* The State of Vermont does not currently have state-wide building codes that would serve as baseline for evaluating CH measures in new construction. If in the future, CH measures are included as part of a state-wide building code, then new construction would not be eligible for CHS credits.

1. **Wood stoves replacing fossil fuels** – TAG members noted that it is the intent of the legislation that the installation of new appliances that replace the use of fossil fuel heating systems is the focus for credit development.

* Questions were raised about OD’s response, because it suggests that credits will be assigned to the purchase of wood fuel rather than the installation of advanced wood heat systems. If this is the case, clarification is needed.
* TAG members feel strongly that only qualifying wood heat appliances (definition still under discussion by the TAG) should be eligible for credits, not wood fuel itself.
* About 20% of building heat is already provided by wood as a fuel and providing credits for wood fuel used in legacy wood burning appliances will not provide any progress to meeting the thermal sector targets in the ANR-provided GHG inventory.

1. **Window HP** – EAG thinks these might be important measure for renters, however, several questions about how to characterize the savings were discussed including:

* If a renter or homeowner can take the unit(s) to a different building when they move, the savings will potentially change based on the characteristics of the new building.
* Current window heat pumps have a very limited warranty (2 years) and uncertain lifetime.

1. **Comprehensive weatherization** –There needs to be clarity with respect to the data that are available to register any particular creditable action. In this particular case the WAP service providers and EVT should weigh in on what is current practice for data compilation on specific weatherization projects.
2. **Liquid biofuel fired conversion of a furnace or boiler** – The TAG agrees with this response. In contrast to wood fuel, it is fair to treat all future fuel deliveries of lower carbon liquid (and gaseous) biofuels as creditable activities.

* A TAG member noted that eligibility of burner upgrades to accommodate biofuels still needs to be addressed.

1. **Commercial HP Clothes** **dryer** **with electricity baseline** – OD precludes this measure because it only reduces electricity use and does not specifically replace a fossil fuel device.

* Because electricity does have a carbon intensity value when considering life cycle impacts, a reduction in the use of electricity does result in the reduction of GHG emissions.
* The PUC will need to determine if the electricity reduction in a clearly thermal sector application is eligible for credits even if it is a small reduction.
* This consideration is more generally important with any measure installation in a building that has significant electrification of its heating load.

TAG Subgroup questions: Installed Measures

1. **Definition of wood stoves**: TAG will be discussing definition of advance wood heat on 10/30 and will provide add’l comments.
2. **Codes and standards** –

* A member noted that a Climate Council subgroup is discussing a model rule re emissions standards for thermal space and water heating equipment, so this could also be extended to state codes and standards.

1. **Ductless air source and air to water heat pump** - As with the weatherization topic above, the PUC will need to be guided by the input data that is available from entities delivering clean heat measures.

* In this case the OD TRM is different than the TRM for use in Tier III. The PUC will need to determine if absolute consistency is critical for establishing clean heat credit values.

1. **Assumptions and tracking in alignment with EVT TRM** - The DPS will submit further comments on this separately.
2. **Custom measures** - **“Custom measures”** implies that each installation needs to be evaluated to determine savings. Pre- and post-installation air infiltration tests for custom weatherization could be performed, but again, whether this is practical should be confirmed with WAP and EVT.

### Delivered Fuels – Liquid and Gaseous

1. **Table 7** – Average heating efficiency – DPS will submit comments separately
2. **Treatment of LUC** – TAG will discuss on 10/30 and submit comments separately
3. **T&D losses for biofuels**

* The TAG member who asked this question clarified that they did not intend to imply that biofuels should have T&D losses and in fact doesn’t think there should be T&D losses other than tailpipe emissions from delivery vehicles, which should be accounted for in GREET model. Request clarification if other T&D emissions are attributed to biofuels.

1. **Electricity T&D losses** – The DPS will address this response in its comments to PUC.

### Delivered Fuels – Wood

TAG will discuss wood biomass at its 10/31 meeting and submit comments separately.