Thomas Weiss
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February 15, 2024

Holly R. Anderson
Clerk of the Public Utilities Commission
112 State Street
Montpelier, Vermont 05620-2701

Re: Case No. 23-2221-INV, Proceeding to Design the Potential Clean Heat Standard
Reply comments on Default Delivery Agent Obligations, Responsibilities, Number, Geographic Scope
Topic tag 7, DDA Criteria

Dear Ms. Anderson:

Here are my comments on default delivery agent obligations, responsibilities, and number.

Commission's request

The Commission on December 11, 2023 requested comments on default delivery agent obligations, responsibilities, and number. The Commission requested comments addressing the possible number and geographic scope of default delivery agents, and a default delivery agent's obligations and responsibilities. The Commission also invited participants to identify topics or issues to be resolved and to propose agenda items for workshop discussion. The Commission held a workshop on January 25, 2024. Reply comments had been due February 9, 2024. The Commission issued an order on February postponing the due date of the reply comments. The Commission placed the due date for these reply comments into the schedule issued February 12, 2024.

Thoughts on Written Comments and Workshop

Comments of the Department of Public Service

Credit prices This topic straddles the obligations and responsibilities of this topic and the compensation structure of the next set of comments due March 8. I delay discussion of this topic until the March 8 comments.

In those comments DPS used the term "credit price".

I suggest that we be clear about our use of the terms credit value, credit cost, and credit price.
- credit value is the measure's life cycle reduction of CO_2e. (8127(c))
- credit cost is something established by the PUC (8124(i). Each DDA needs to establish a schedule of its credit costs (8127(d)(3). The PUC is required to use proceedings to establish default delivery agent credit costs using the proposed budget submitted by the default delivery agent.
- price is not used by the Act in relation to credits.

Comments of the Vermont Energy Investment Corporation

The numbers are those used by VEIC in its comments of January 19.

2. VEIC requests that all weatherization services be obtained "from incremental weatherization projects administered through a DDA."

I disagree with requiring all weatherization to be done through DDA's. I acknowledge that the first-listed clean heat measure, (thermal energy efficiency improvements and weatherization) needs to be done by knowledgeable and qualified individuals. By admission of VEIC (or maybe it was Efficiency Vermont) in this proceeding or 2220, one or the other has already been paid and is continuing to be paid to provide training in this area. Those trained individuals, I hope, are then free to offer that service to anyone, either with VEIC/Efficiency Vermont incentives or not.

VEIC points out correctly that the value of of weatherization depends on the order of provision of measures. Act 18 calls this interaction. The TAG's responsibilities includes assigning credit values to measures and determining the effects of interactions on those values. VEIC also correctly points out that thermal equipment installed before thermal energy efficiency improvements and weatherization will result in oversized equipment that will function inefficiently after the thermal energy efficiency improvements and weatherization are done.

However, the VEIC failed to follow through with interactions. The TAG is required to consider interactions and to set credit values considering the interactions.

I have advocated in these two proceedings (2220 and 2221) that the setting of credit values include up front the interactions of measures. Under my proposal, if the heating and cooling equipment is installed first, the credit value assigned to the equipment is only the credit value it would receive if it had been installed after the thermal energy efficiency improvements and weatherization. This preserves for thermal energy efficiency improvements and weatherization improvements the full credit value that it deserves.

3. VEIC requests that a DDA function as an administrator and that it be used to provide training and market uplift.

Training and market uplift does not create clean heat credits. Act 18 defines clean heat credit.

> "Clean heat credit" means a tradeable, nontangible commodity that represents the amount of greenhouse gas reduction attributable to a clean heat measure. The Commission shall establish a system of management for clean heat credits pursuant to this chapter. (8125(2))
>
> List of eligible measures. Eligible clean heat measures delivered to or installed in residential, commercial, and industrial buildings in Vermont shall include:
>
> (1) thermal energy efficiency improvements and weatherization;
> (2) cold-climate air, ground source, and other heat pumps, including district, network, grid, microgrid, and building geothermal systems;
> (3) heat pump water heaters;
> (4) utility-controlled electric water heaters;
> (5) solar hot water systems;
> (6) electric appliances providing thermal end uses;
> (7) advanced wood heating;
> (8) noncombustion or renewable energy-based district heating services;
> (9) the supply of sustainably sourced biofuels;
> (10) the supply of green hydrogen;
> (11) the replacement of a manufactured home with a high efficiency manufactured home and weatherization or other efficiency or electrification measures in manufactured homes; and
> (12) line extensions that connect facilities with thermal loads to the grid.

Training and market uplift are not yet eligible measures. If the DDA spends money on training and market uplift, that money must come out of the fees paid by obligated parties. That would had an element of overhead to the DDA's provided measures. That extra overhead will make the DDA less competitive in the market for providing measures.

On the other hand, it is possible for the PUC to add training and market uplift to the list of eligible measures. That introduces unnecessary complications (in the form of bookkeeping nightmares) to the standard. Remember the interaction I mentioned above? If credit value is assigned to training, that means that the credit value of the measures provided using that training needs to be reduced. While the credit value of the same measure installed by providers not receiving that training would not be reduced.

The only funding that Act 18 authorizes for the DDA are the fees nd non-compliance payments paid by the obligated parties. The DDA must spend all those fees on delivering measures either directly or indirectly to end-use customers. The credits created by fees belong to the obligated party that paid the fees (8125(d)(4)). It is not clear from statute who owns the credits from non-compliance payments. The noncompliance payment is twice the credit cost. So one can consider that half the payment goes to the obligated party's missed credit and the other half goes to a second credit. I suggest that the obligated party owns the credit for the measure it didn't deliver. I recommended on January 19 that the second credit should belong to the obligated party. I have not seen persuasive evidence to change my mind.

4. VEIC raises issues n compensation that are appropriate for the next set of comments due March 8. I make no reply on this comment now.

5. VEIC requested that the DDA's cost structure be used to reduce upfront costs.

I do not understand the basis of VEIC's argument here. The DDA will be paid for all the credits generated, thus will have the upfront costs.

Let's look at a simple example.
- A measure has a lifetime of ten years and generates ten credits over those ten years. Those ten credits contain value of the life cycle CO_2e emissions.
- A different measure generates one credit and has a lifetime of one year.
- The obligated party needs to retire ten credits this year.

An obligated party has the same choice, whether it goes through a DDA or not. Install the project that generates ten credits this year and retire all those credits this year. Or install ten of the one-year projects and retire all ten credits this year.

I do not believe there is anything in statute that prevents retiring all ten credits from the larger measure in the year the measure is provided. It's the obligated party's choice. Statute does require that credits generated by a DDA shall be owned by the obligated party. In my case above, the obligated party would use all the credits in the current year, so there would be no unobligated credits.

> Clean heat credits generated through installed measures delivered by the default delivery agent on behalf of an obligated party are creditable in future years. Those credits not required to meet the obligated party’s existing obligations shall be owned by the obligated party. (8125(d)(4), in part)

I'll change the scenario so that this year's obligation is 5 credits. The obligated party could choose to install the project that generates ten credits this year. The party could retire five of those credits and use the other five in a combination of banking or selling to the credit market. Or the party could install five of the one-year projects and retire all five credits this year.

We have already acknowledged, either here or in 2220, that there will need to be dual accounting systems. One for lifecycle CO_2e emissions and a second for annual emissions for the greenhouse gas inventory. So that dual system will need to account for this.

This does raise an ancillary question that depends on how the credit market is set up. Does the DDA transfer all credits to the obligated party? That allows the obligated party to determine how many to retire, how many to put into the bank for future use and how many to sell to the market. This is proposed for discussion under 2220, so we should not consider this now. This paragraph is in the category of a memo to ourselves as something to consider later in the wider context of the credit market and banking. and transfer of credits.

Conclusions:
- Do not require that all thermal energy efficiency improvements and weatherization be done through a DDA.
- Do require that thermal energy efficiency improvements and weatherization measures be installed before other measures are allowed. A distant second will be to reduce the credits available to other measure to those available if provided to a fully improved and weatherized building. I've not commented on this aspect before. If it is a manufactured home, then substitute measure (11) (the replacement of a manufactured home with a high efficiency manufactured home and weatherization or other efficiency or electrification measures in manufactured homes) for measure (1) (thermal energy efficiency improvements and weatherization) here.
- Do not provide credits for training or market uplift.
- Do postpone consideration of compensation until the comments due March 8.
- Do decide that the system as established provides the upfront cost to the DDA by the obligated party's fees.

Comments of Vermont Gas Systems

Some of VGS' comments relate to evaluation criteria and eligibility. Those topics are to be addressed in comments due March 8. I defer comments on these aspects until then.

VGS suggests that the DDA will have banked credits that it can use to satisfy its obligations. I fail to see how a DDA has banked credits. I have discussed this above in my comments on VEIC.

VGS suggests there will be no credits generated by noncompliance payments. As I explained above, noncompliance payments should generate two credits. One satisfies the credit missed by the obligated party. The other is a second credit. As I noted above, I recommended on January 19 that the second credit should belong to the obligated party. I have not seen persuasive evidence to change my mind.

Conclusions
- Defer consideration of eligibility and evaluation criteria until the March 8 comments on these topics are submitted.
- Banked credits will not be available to DDA's.

Comments of Vermont Fuel Dealers Association and Heating and Cooling Contractors of Vermont

I am beginning to understand their comments about how much work the DDA's will perform.

VFDA/HCCV suggest that DDA's will be unnecessary. That remains to be seen.

The big question on my part is how obligated parties with no end-use customers choose to meet their requirement. These are the importing wholesalers in my mind. Will they expand their business model to provide these services directly, or indirectly. Will they merely make the payments to DDA's?

The registrations due at the end of this month will provide information on the percentage of fuel that is imported by those with no end-use customers. The information will not tell us how they will meet their obligations. I speculate that those with no end use customers will be more likely to use DDA's than those with end-use customers.

I have not heard VFDA/HCCV discuss whether obligated parties with no end-use customers .are also creating early credits.

Summary of January 19 comments

My January 19 recommendations are given here with some modifications based on the workshop and the other January 19 comments. I also have recommendations in the sections Conclusions above.

Number and geographic scope

Allow multiple default delivery agents. Instead of a fixed number, be open to a number that balances competitiveness with the administrative burden.

Have each default delivery agent serve the entire state.

Required work areas
Add the potential study to the Clean Heat Study page. The Clean Heat Study Page would have a brief description of the study (from section 81xx) with a link to the DPS's page(s) on the study.

Require each default delivery agent to provide thermal energy efficiency improvements and weatherization.

Require that thermal energy improvements and weatherization be the first measures to be provided at a given building

Define energy efficiency improvements as insulation, new doors and windows, heat exchange ventilation systems. There might be some more improvements to add to the list.

Require that thermal process loads be part of the program for commercial and industrial buildings.

Require that non-compliance payments fund 100% of measures for customers of low income, again starting with thermal energy efficiency improvements and weatherization..

Require that housing units of customers with low income that receive measures remain affordable for customers of low income at least for the duration of the longest measure received.

Assign initial ownership of the credits created from noncompliance payments to the obligated party that made the payments.

Reporting and information
Require that the default delivery agent share the information needed by the tracking system with the obligated party and the other relevant entities. Those entities will be determined later during the development of the credit tracking and marketing system.

Enforcement
I appreciate that we discussed what happens if a DDA fails to provide the credits it has been paid to provide at the January 25 workshop. That was in response to my January 19 recommendation to discuss this. I know that

enforcement needs to be put into the final plan. I have no suggestion on how to implement it. I do agree that the obligated parties should not be penalized.

<u>Other items for discussion at the workshop.</u>
We did not discuss these recommendations. I still think they need discussion.
 - What if the default delivery agent is based outside Vermont?
 - If an obligated party has end use-customers, must the default delivery agent provide that obligated party's credits to that obligated party's end-use customers as a priority?

I ask that you find that these recommendations have merit, and that you use them to shape the requirements for the default delivery agents

Sincerely,
Thomas Weiss, P. E.