# VERMONT AGENCY OF NATURAL RESOURCES & AGENCY OF TRANSPORTATION

## Cap-and-Invest Study: Potentially Obligated Entities Focus Group

November 7, 2024

## MEETING SUMMARY

| Project Team (7) | Attendees (19) |
|---|---|
| Andrea Wright (Agency of Transportation) | Jim Kurrle – Bourne's Energy |
| Jane Lazorchak (Agency of Natural Resources) | Kevin Grant – Sprague Operating Resources |
| Brian Woods (Agency of Natural Resources) | Anna Borchert – Omya Inc. (Verpol) |
| Patrick Ó. Murphy (Agency of Transportation) | Craig Maetzold – Omya Inc. (Verpol) |
| Chris Porter (Cambridge Systematics) | Erik Rison – Smurfit Westrock |
| Jim Redeker (FHI Studio) | Jerry Brown – WestRock Converting LLC - Missisquoi Mill |
| Toni Marie Pignatelli (FHI Studio) | Ryan Olson - Smurfit Westrock |
| | Charlie Loiselle – WestRock Converting LLC - Missisquoi Mill |
| | Michelle Bolz – Global Foundries |
| | Andrew Lacourciere – Global Foundries |
| | Taryn Dausman – Global Foundries |
| | Dorian Evans – University of Vermont |
| | Beth Jackman – Jackman Fuels, Inc. |
| | Anna Thomas – Smurfit Westrock |
| | Matt Cota – Meadowhill Consulting (Vermont Petroleum Association, Vermont Vehicle and Automotive Distributors Association), Vermont Climate Council |
| | Kelley Tully – C&H Transportation |
| | Jared Duval – Energy Action Network, Vermont Climate Council* |
| | Richard Cowart – Regulatory Assistance Project, Vermont Climate Council* |
| | Sam Lash – Central Vermont Regional Planning Commission, Vermont Climate Council Just Transitions Subcommittee member* |

*Technical Advisory Committee member*

## Presentation Summary

Jane Lazorchak, from the Vermont Agency of Natural Resources (ANR), and Andrea Wright, from the Vermont Agency of Transportation (AOT), welcomed attendees to the virtual Business Focus Group on November 18, 2024. The focus of the meeting was Vermont's consideration of a cap-and-invest program. J. Lazorchak and A. Wright thanked participants for joining the public session.

Jim Redeker, of FHI Studio, outlined instructions for participating in the meeting, after which Andrea reviewed the agenda, which included the following items:

- Welcome
- What has Vermont done to plan for and address climate change?
- What is a cap-and-invest program?
- How can a cap-and-invest program help Vermont meet its climate goals?
- What are the potential benefits and impacts to Vermonters?
- Introduction to this climate policy study
- Discussion
- Stay Involved!

A. Wright emphasized that Vermont is conducting a study to evaluate the feasibility, potential benefits, and costs of joining a cap-and-invest program. She clarified that the state is not currently implementing such a program. She then introduced the study team.

J. Lazorchak, from Vermont's Climate Action Office, provided an overview of the state's progress in addressing climate change. She highlighted the Global Warming Solutions Act (GWSA), passed in 2020, which legally mandates emissions reductions and includes objectives related to land use, resilience, and adaptation. The GWSA established statutory climate pollution reduction targets:

- 26% below 2005 levels by January 1, 2025.
- 40% below 1990 levels by 2030.
- 80% below 1990 levels by 2050.

The GWSA also created the Vermont Climate Council, an independent body of eight state officials and 15 legislative appointees representing diverse sectors. The council drafted Vermont's Climate Action Plan (CAP), first adopted in December 2021. While the CAP included emissions reduction strategies, it acknowledged that the transportation sector required additional policies to meet statutory goals. The Transportation Carbon Reduction Strategy later identified that modest emissions reductions could be achieved by redirecting funds but recommended more robust policies, such as cap-and-invest.

Chris Porter, of Cambridge Systematics, introduced cap-and-invest programs:

- These programs establish an economy-wide, declining cap on emissions.
- The state distributes or sells "allowances" (rights to emit one metric ton of carbon dioxide equivalent).
- Companies can trade allowances, enabling emissions reductions to occur at the lowest cost.
- Proceeds from allowance auctions are reinvested into clean energy, energy efficiency, and other initiatives that benefit Vermonters while reducing emissions.

**Projected Benefits of Cap-and-Invest Programs**

- Reduction in climate pollution.
- Investments in energy efficiency, electrification, and multimodal transportation.
- Job creation in the clean energy sector.
- Improved public health through reduced emissions and increased physical activity.
- Enhanced business certainty with formalized emissions reduction timelines.

**Potential Challenges**

- Higher prices for fossil fuels (e.g., gasoline, diesel, natural gas).
- Potential border effects, such as consumers or businesses seeking cheaper options in neighboring states.
- Compliance burdens on regulated entities.

**Strategies to Mitigate Impacts**

C. Porter outlined several measures Vermont could adopt to reduce potential burdens:

- Introducing a price cap to prevent excessive allowance costs.
- Allocating proceeds to equity-focused programs, including rebates for low-income households and vulnerable businesses.
- Reinvesting proceeds to support fuel switching and energy efficiency.
- Providing free allowances to at-risk industries to prevent business relocation.

**Preliminary Findings**

The study indicates Vermont's ambitious 2030 emissions reduction targets may require high allowance prices and broad sector coverage. Key metrics being evaluated include:

- Potential emissions reductions under different price scenarios (starting at ~$10, $30, $60+ per ton in 2026).
- Auction revenue projections, ranging from $25–$250+ million annually, depending on sectoral coverage and allowance prices.
- Socioeconomic impacts, such as household cost savings, job changes, and health benefits.

C. Porter explained that a draft analysis will be completed by December 2024, with further public engagement planned for early 2025. The results will inform recommendations to the Vermont Legislature in 2025.

The study aims to provide actionable insights on cap-and-invest programs and their alignment with Vermont's statutory climate goals. The Climate Action Plan update, due in July 2025, will incorporate these findings to guide the state toward achieving its targets.

## Facilitated Discussion

J. Redeker opened the facilitated discussion by asking how confident participants were in their understanding of cap-and-invest programs. He also asked if they had any questions about the material presented. Participant responses are anonymous.

*Q: Is the idea to link to another program, but at the same time maintain guard rails which are unique to the State of Vermont, say, for carbon emissions?*

> *A: C. Porter*: Yes, the idea would be to link with another program, but there may be some guardrails or program specifics that are different. With the Western Climate Initiative, for example, you can link into the market without having all program elements aligned. Washington State is currently going through this process. They are using the Western Climate Initiative trading platform, but they currently have a separate program and are considering linking with WCI.
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> *A: M. Hafstead:* Linking is possible and requires much discussion between states to hash out the details that will make different guardrails work.

*Q: Is it being contemplated to regulate all fossil fuel gallons regardless of end use?*

> *A: C. Porter*: In California all fossil fuels are covered.
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> *A: J. Lazorchak:* New York is contemplating economy wide regulation, similar to California. However, they would exclude electricity, since electricity is covered through the Regional Greenhouse Gas Initiative.

*Comment:* Participant responds that there is a lot they don't understand about the program. While it sounds like a good thing more information about how the program may impact their organization's operations would be beneficial.

*Comment*: Participant desires additional information that will allow them to understand at which point their organization might be impacted and to what degree, including whether their organization will be responsible for buying or selling credits.

*Q: With regards to allowances, would the program measure carbon or greenhouse gas emissions? Will the program include electricity? Are you working with the PUC (Public Utilities Commission) or other agencies, program, and policies?*

> *A: J. Lazorchak:* The clean heat standard is being developed with the legislative session understanding that this recommendation will be informed by the work that's happening in that space. The Treasurer will make his first recommendation in February. Any recommendations that we are considering will be informed by what sectors need to be covered in a cap-and-invest program versus covered in a clean heat standard. I think that if the clean heat standard wasn't underway that having one program that regulates all fuels would be simpler for the potential of covered entities. However, in some states, such as California, there are complimentary programs that work under caps.
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> *A: C. Porter:* Regarding allowances, fossil fuels would require allowances. This means gasoline and diesel. However, if you blend them with renewables, that renewable portion would not require an allowance. One of the ways you could reduce emissions, for example, would be to blend gasoline and diesel with 10% or 20% bio diesel. This would mean you would require fewer allowances.

*Q: Programs like this can encourage both economic and carbon leakage. What types of mechanisms are you exploring to limit the effects of leakage, particularly on energy intensive, trade exposed industries?*

> *A: M. Hafstead:* There are ways to mitigate impacts on energy intensive, trade exposed industries. In California they do something called output-based allocation. They give free allowances to firms, but it's based off historical emissions intensity. There is a cap adjustment factor and then there is output. This incentivizes firms to keep producing, because the more you produce, the more of these free things you get to cover your allowance needs. There is a lot of evidence that this approach works well. There are also options for using revenues to help industries decarbonize, which incentivizes investments. There is the option of excluding those sectors, which is a consideration. I don't know how much we're going to cover all of those details in this study, but there are options within the framework of a cap-and-invest program to help out effective industries. The intent is to reduce emissions and not to go out of business and lose employees.

*Q: Do you have a sense of the cost that businesses will bear for administering such a program? Also, will the State have an appetite to invest revenues from the program in energy efficiency for*

*the larger industrial operations in the state since the up-front investment to do so will be significant?*

> *A: J. Lazorchak:* As part of this study we are analyzing the emission reductions that could be realized through the revenue received through the pricing on carbon that obligated entities would potentially pay. The thinking is that the state would reinvest in programs needed to decarbonize transportation, as well as residential, commercial, industrial, and the home heating sector. A portion of the revenue would also go towards resilience and adaptation, recognizing that impacts from climate change are being experienced in the state and there's no dedicated funding source for those kinds of investments. What we have not considered to date is how those funds could be invested in stationary sources that may be covered under the program. I think it would be worthwhile for us to talk about what investment looks like for stationary sources to help support decarbonization. I would also like to consider what other states are doing to help keep administrative costs down for businesses that are regulated.
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> *A: C. Porter:* In theory there exists the opportunity to reinvest proceeds to reduce industrial emissions. However, each of the five major stationary sources of emissions are unique. If the return on investment for weatherizing homes or encouraging electric vehicles is higher, that may be a better choice.
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> *A: M. Hafstead:* I am working with California and while they have strict rules on what I can share, I am at liberty to state that this is a topic of significant interest, and they are working hard to identify options beyond output-based allocation.

*Comment:* Participant shares that if biodiesel is being considered as part of the solution, there will need to be an incentive program to support smaller businesses in accessing the capital needed to import biodiesel, particularly in the heating fuels market. Additionally, they believe the cost of the state administering the program is insignificant in comparison to the cost of enforcing the program. They cite the potential for unscrupulous companies, particularly those in the neighboring state, to operate with no regard for state regulations which could result in law-abiding companies going out of business.

*Q: Could you please explain how you will do the accounting to identify if a source is renewable? There are many renewable energy sources that require a significant carbon expenditure to generate. If those expenditures are made out-of-state, is a source considered renewable for the purposes of this program?*

*A: M. Hafstead:* New York state has an upstream emissions accounting system. For example, if you import natural gas into New York from Pennsylvania, they account for the methane emission and methane leaks along the way. They are very unique in that system. For this program, we will likely adhere to Vermont's accounting approach, which is the direct emissions. That said, Vermont gets to decide how they want to make that accounting. New York is very, very unique in how they do the upstream emissions. No other state uses that method of accounting and that has created challenges for them.

*A: J. Lazorchak:* Vermont is required by law to annually complete a life cycle analysis. This was envisioned through the Global Warming Solutions Act, and then required through the Affordable Heat Act. The first life cycle analysis was completed last year. It is intended to guide policy and decision making. Life cycle emissions are not accounted for in the greenhouse gas inventory, as is the case in New York, because it can lead to double counting and other issues.

*Q: What informed the decision to exclude electricity as part of this program? Is it statutory, a legislative directive, or a decision being made by the study team?*

A: J. Lazorchak: Vermont is a member of the Regional Greenhouse Gas Initiative (RGGI), which is a multi-state cap-and-invest program for electricity only. Our participation means that electricity is already covered through a cap-and-invest program with neighboring states. For that reason, it was an intentional decision not to include electricity in this study.

*Q:* In programs like RGGI, there is an outside entity making taxation decisions upon the citizens of Vermont, which can be problematic as it has been in New York. The other issue is that that one of the goals of a cap-and-invest program is to push people to lower emissions from fuels and electricity. If you're not counting the emissions of a fuel that you're trying to switch people into, how does accounting and reporting work? When you talk about having transportation fuels regulated under the program for the emissions profile, and then you talk about electricity driving the emissions but you're not including that in the program, it becomes a slippery slope and politically challenging.

*A: Jane Lazorchak:* Thank you for those considerations. We will look into that aspect of the New York program. We do talk regularly with New York state, and I hadn't heard them consider that. RGGI is an external tax, and every state implements their own rule around the program and how to use the proceeds. The backstop to our emissions reductions is the greenhouse gas inventory. Cap-and-invest would just be one policy or one tool that we would expect to drive emissions reductions down in

the state greenhouse gas inventory. We would still be considering adopting other policies around electricity. Vermont made strides in this area passing the 100% renewable energy standard last year that requires all electricity to be renewable and clean by 2035.

*Comment:* I want to go back to the question about life cycle versus site or combustion-based emissions. In the California context they have different programs that are looking at emissions in different ways. My understanding of what was intended with the Affordable Heat Act is that there would be both life cycle and inventory aligned accounting, and that reductions would have to be achieved based on both measures. The Global Warming Solutions Act is tied to meeting the emissions reductions as measured in the official state greenhouse gas inventory, which does not have life cycle emissions.

*Comment:* In legislation and here, we are talking primarily about thermal fuels. There is the opportunity to make some energy efficiency improvements, but it is not possible to exchange dirty fuel for a clean fuel, because they both burn fossil fuels. The bottom line is tons of CO2 emitted and if we can reduce that it will be a good thing.

*Comment:* If we are talking life cycle analysis and looking to promote alternative energy sources for transportation by encouraging things like heavy duty truck batteries there will be other implications. For example, it will affect the bridges and roads because they will be bearing more weight. For businesses, there will be the upfront cost associated with purchasing the truck. The additional weight will necessitate smaller loads, which translates to additional trips. This will be a challenge when it comes to labor because it is already difficult to secure commercial drivers in every sector, even with an in-house training program. And lastly, the costs will be passed on to consumers and Vermonters are reeling from the property tax changes and other things that affect their wallets.

*Comment:* I want to encourage this group to step back and consider the virtue of making products in Vermont that have thermal needs. Making items that people need and allowing for them to be sourced from as close as possible is desirable for many—perhaps more desirable than pushing out the associated emissions as well as the economic benefits. There would be downstream effects regardless of the offsetting incentives.

*Q: What are the next steps in terms of the process for the study?*

*A: J. Lazorchak*: The technical components of the study will be drafted in a report by the end of December. The thinking is that we will conduct more focus groups to solicit feedback and input on the draft considerations. We would be engaging with potentially obligated industries, businesses that could be affected by an increase in

fuel costs, environmental organizations, and community-based organizations. The Treasurer's office is obligated to provide a recommendation to the legislature by mid-February. The topic is also being vetted by the Cross-Sector Mitigation subcommittee (of the Vermont Climate Council) and ultimately by the Climate Council itself. The Climate Council takes public input throughout their meetings. Information is being posted to the Vermont Climate Action Office cap-and-invest webpage.

## Closing Remarks

J. Redeker thanked everyone for their input and encouraged participants to stay involved and share additional feedback as the State moves toward final recommendations. J. Lazorchak provided final remarks based on the discussion, emphasizing that the project team is identifying additional opportunities for public and stakeholder engagement on the study.