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Testimony:

Many thanks to Chair Briglin and all members of HET for the opportunity to be here today and for your work to explore the Clean Heat Standard. I am Johanna Miller, Energy & Climate Program Director at the Vermont Natural Resources Council. I am also the House appointed representative on the Vermont Climate Council, representing a statewide enviro organization. I testify today wearing my VNRC hat, however, not my Climate Council hat. And I thank you in advance for considering my input.

My role on the Council is as a member of the Cross Sector Mitigation (CSM) Subcommittee; more specifically co-leading the transportation work. Another reason I am interested in this conversation and potentially developing a Clean Heat Standard is what we can learn from it and how the state might shape a Clean Transportation Standard. As you are likely well aware, we have had to go back to the drawing board to fill a gap in the plan left by the cratering of the Transportation & Climate Initiative-Program just days before we had to adopt the final CAP. A Clean Transportation Standard is on the very short list of options we are now actively exploring.

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While we must get a Clean Heat Standard program done *right*, and I will offer my thoughts on what that means, we must also get it *done*. We have been talking about helping Vermonters and Vermont businesses reduce their energy and fossil-fuel consumption for decades. We need tools to equitably do that.

QUESTIONS:

What problem is the CHS addressing?

- It is designed to make significant, annual reductions in the sector that contributes to 1/3 of VT's climate pollution. We need it.
- We cannot meet the GWSA requirements without it.
- We must finally bring the liquid fuel sector more on par with the regulated electric sector, which has long been obligated to increase the state's renewable energy supply and partner with VTers to achieve cost-effective GHG emission reductions. We need an analogous regulatory or policy tool a performance standard for the thermal/building space.

What are the challenges/why is reducing thermal emissions hard? There are many. A few:

- We've never required it. That also means that we have not sent the market signal and thoughtfully created and supported the creation of a playing field for fuel providers to innovate and meet fossil fuel-reduction requirements in ways that work for them as well as their customers.
- It's a very complex, distributed system integrated into most households and businesses. We have collectively built and relied on this system for a long time. There are existing fossil-fired heating system(s) in households and businesses and beyond that are at various ages that are significant investments for VTers. There are important considerations to understand and weigh in designing a system to reduce cost impacts and create affordable clean heat options for Vermonters, particularly lower income earners.
- Inertia.

A well-designed CHS could address these big challenges.

Who needs us to implement a CHS?

- 1. Vermonters VTers recognize the urgency of the climate crisis. They want the state to do its part and they want to be part of the solution too. They need support in making choices that are easy and affordable.
- 2. Fuel providers Fuel providers who have been delivering us heat and warmth for generations need certainty and a blueprint for new business models that serve them and their customers well. We have the technology and the tools. We need a system that supports are partners in delivering to customers.
- 3. The State of Vermont We have a legal requirement to make GHG reduction progress; this is the 2nd largest sector. We need the tools to do it. And the CAP doesn't add up without it.
- 4. The planet The world's leading climate scientists told us in 2018 that we must collectively cut our climate pollution by ½ by 2030 or risk significant, costly repercussions from unrestrained climate change. This is one tool Vermont must employ to take needed steps forward.

What challenges/shortcomings/issues do we need to be cognizant of in design? There are many parts to that, but two in particular I'd mention:

- 1. One critical design priority is to build a program based on accurate lifecycle assessments of GHG emissions from fuels. This will be key to a credible, effective CHS. If this moves forward, the Legislature must give very clear policy guidance on the parameters and principles you would like to see in program design. That is true for both ensuring it meets short- and long-term climate requirements (2025, 2030 and 2050). One way to ensure a credible, effective program would be to require the PUC to adhere to 10 V.S.A 582 G, which requires "transparent and accurate lifecycle accounting of GHG emissions, including emissions from the use of fossil fuels and renewable fuels, such as biomass."
- 2. Equity. I would urge you to send clear, specific direction to the PUC to drive equity outcomes. Some suggestions would be:
 - A program that ensures and sets a specific target around a significant amount of clean heat credits... and the delivery of incentives, programs and services to... low and moderate income Vermonters. (e.g. 50% of credits to support LMI Vermonters)
 - Ensure access to programs and opportunities for renters by requiring the acquisition of credits for this sector.
 - Require equitable geographic deployment.
 - Likely others.

Noting: Equity considerations can and should be informed by the environmental justice bill advancing in the Senate, if it, hopefully, succeeds. In particular, that bill is likely to provide an important definition of EJ communities and a mapping tool that will help highlight and provide a framework for serving the most overburdened and underserved Vermonters and Vermont communities. The Council's Just Transition equity framework will also be important to lean on and reference in program design and implementation.

Again, the details of the program design will make or break the efficacy of this program over time; realizing the opportunity it could provide to flexibly, actually and significantly drive down climate pollution from the building sector. That means:

- Again, a program built on accurate greenhouse gas emissions accounting which will require more work, time and investment. There is an RFI out there to do this work and, likely, an RFP ensuing. But, there is no money appropriated to do this analysis. Funding needs for the technical analysis for this and other important analyses' is an active conversation at the Climate Council. VNRC would ask/urge you to consider making a recommendation for an appropriation to undertake a lifecycle GHG analysis. We are poised to build needed programs to cost-effectively cut carbon pollution and we need good information to undergird program designs in all sectors.
- A successful CHS that centers equity.
- A CHS that sends signals and supports the adoption of the most effective, climate beneficial heating solutions, and the need to first and fundamentally reduce energy consumption and become more efficient. Weatherization within but also beyond the CHS will be key and must be part and parcel of an overall comprehensive strategy to reduce emissions in the building sector. And, over the longer term especially, significantly reducing fossil fired combustion for heat and relying more on clean heat through electrification.

This is an important moment. We currently lack and very much need a mechanism that requires and realizes cost-effective, climate-centered, equitable progress in reducing building emissions. A well-crafted CHS can meet that need.

Thank you – and I look forward to answering any questions and partnering with you, others to explore this further.