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VERMONT CHAPTER

Vermont Sierra Club

Testimony Before Senate Natural Resources and Energy Committee

On S.5, The Affordable Heat Act

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Chairman Bray, Senators, thank you for the opportunity to share these thoughts today. I'm Stephen Crowley, and I serve as vice chair and energy chair for the Vermont Chapter of the Sierra Club.

The Sierra Club is an environmental advocacy organization, with over a million members nationwide. Our Vermont chapter, chartered thirty years ago, has nearly 10,000 members and supporters. We've been engaged in Vermont issues ranging from wilderness preservation to water resource protection, waste and toxics issues, air pollution, environmental justice, transportation, and the climate crisis. It's the last two that occupy our focus today.

I serve as our chapter's energy chair. I previously served as Sierra's Northeast Regional Vice President, coordinating energy policy among our chapters from Pennsylvania to maritime Canada, and for four years I served as chair of our national climate campaign, focusing on both national strategy and state level policy. In addition to this, in my career as a science teacher, I have studied, taught courses, and presented at professional conferences on topics including energy policy, the science of climate change, system dynamics modeling, and so on.

We look at the Affordable Heat Act from three perspectives. A top priority for us is equity; we need to ensure that everyone has a seat at the table, and that we recognize the disproportionate exposure some Vermonters have to both the climate crisis itself and to measures we undertake in response. Second, of course, is our response to the climate emergency in which we find ourselves, indeed, which we have brought upon ourselves. And thirdly, directly relevant in our thoughts about the Affordable Heat Act, is that other

challenge, the biodiversity crisis, or in the words of author Elizabeth Kohlberg, the Sixth Extinction.

The Vermont Sierra Club has concerns and improvements we would like to see addressed in S.5. We commend its purpose, we appreciate the creativity and enormous effort that have gone into tackling this very important sector of work. We also recognize significant improvements. The inclusion of and reliance on bioenergy as a solution, though, with all of its drawbacks, make it impossible for us to be fully on board. At the same time, we also recognize that it is imperative that we get moving.

Before jumping into a number of specific observations and suggestions about S.5, I'll state in general terms our concerns about bioenergy.

- The processes that create bioenergy fuels are complex and rapidly changing, so accounting for their greenhouse gas or ecosystem impacts is challenging.
- Every source, not just every type of fuel, has its distinct set of conditions and impacts.
- Biofuels are part of a global market, from which our Vermont portion is inseparable. As this market grows, and it is growing rapidly, the land used to grow bioenergy crops is commonly land that has been used for food, or has been part of important, carbon-sequestering and biodiversity-supporting forests.
- This loss of acreage has critical human consequences as well, stressing food supplies, and threatening the forests that indigenous populations rely upon for their very existence. Our increased reliance on bioenergy, not to mention imported hydropower, will be looked back upon as a great travesty of our time.

I would urge the Committee to pull in expert knowledge on these issues, and we would be happy to help with that.

So, now, let me focus on the bill. You'll see here elements of consumer protection and education, keeping the system honest, and care for the planet.

Recommendations on S.5, the Affordable Heat Bill:

1. Consumer Rights, Consumer Education: Ownership of Clean Heat Credits. (page 6, 8124) This question is not addressed clearly in S. 5, but it matters a great deal in how the program plays out. **It should be clarified that the funder owns any credits.** This would include the homeowner, or Efficiency VT, or the publicly funded (through the efficiency fee) VT Gas efficiency program. The only part that

should become tradable credits are the portions that are funded out of pocket by the obligated parties (a cost they will pass this along to consumers).

- a. Holding to the established requirement for greenhouse gas reduction from the thermal sector, this would effectively reduce the portion of clean heat credits demanded from obligated parties in proportion to their share vs. the shares created by customer or public investment.
 - b. In recognition of what we see as the rights of consumers, and consumer education, there should be a clear requirement for full transparency and disclosure for the end-user. (page 24, 8128(c))
2. Early Action Credits. (page 8, 8124(c)) **This section of the bill is unnecessary and should be deleted.**

 - a. This unfairly advantages the few parties in a position to act, and disadvantages parties not set up, and their customers.
 - b. It is suggested that this incentive will ensure that entities not hold off on doing credit-earning projects until the program starts. This is now unnecessary, with the presence of IRA and other funding to incentivise GHG reduction over the next couple of years. These funding sources will already stress the capacity of our workforce; no additional incentives are needed.
 - c. The systems for measuring and monitoring clean heat credits will not yet be in place.
 - d. Early Action Credits will distort and hobble the initiative as the banked credits flood the system; early action credits become 'no action' credits as soon as the program takes effect.
3. The low and moderate income carve-out: (page 9, (d)(2)) S.5 requires that 16% & 16% of an obligated party's credits be created by serving low and moderate income households. These should all be **satisfied only by efficiency and electrification** measures, and not at all through sales of bioenergy. (the bill currently requires a minimum of 50% for this) Bioenergy sales do nothing to help LMI households, and only perpetuate their existing higher energy use.

4. Renewable Natural Gas: **eliminate the "secured contractual pathway" language.** (p. 16, 8125(d))
 - a. Fuels should be physically delivered in order to earn credits. Without physical delivery, we are actually still burning the fossil gas, creating emissions, and incurring the associated upstream impacts from that gas. Credit for gas created elsewhere cannot displace those impacts.
 - b. As with the lifecycle accounting, below, there should be transparency/verifiability/verified accountability required of every RNG source, or the source should not be granted clean heat credits.

5. Emissions schedule/lifecycle accounting. (page 17, (f))
 - a. Following section (f), language should be added that further prescribes, at a minimum, considerations required in the life cycle model;

(f)(1)(a) The base model, such as the GREET model or any other, shall be adapted to the specific needs and requirements of Vermont. This shall include, at a minimum, the assessment of the global warming potential of methane with a 20 year average (GWP20); any methane leakage associated with the conversion of biogas (CH₄ plus CO₂) from any source, such as biodigested manure or landfill gas, into Renewable Natural Gas; the lost sequestration potential of natural lands converted for fuel production; and any other considerations deemed relevant by the TAG or PUC. All inputs and calculations included in the model shall be publicly available for review.
 - b. On page 17/18 of the bill, at the end of (f)(2), add the words "and including greenhouse gas emissions from land use change, including deforestation, including but not limited to lost sequestration of carbon." This is consistent with the charge of the TAG, on page 20, 8126(a)(3). And then, continuing, "RNG shall not qualify unless that particular gas (a) would have been vented, and (b) no other regulation presently in force would require it to be reduced, captured, or flared.

6. Phasing down or phasing out of bioenergy fuels. (page 16/17, 8125, after (e))

- a. The “phasing down” process creates an illusion of improvement that does not actually happen. Even if we move from higher GHG biofuels to lower, we still buy into the global market for liquid biofuels. We may think we are helping by targeting the purchase of a lower carbon fuel, but the reality is, someone else will just shift toward the low cost fuels we relinquish. The disastrous global impact of bioenergy development will not change at all, not even at the “Vermont Scale” that we might hope to create. The net effect is zero change in the global burning of fuels. Improvement is an illusion.
 - b. **Rather than, or in addition to, phasing down, the use of biofuels should be phased out.** We recommend establishing a cap on the percent of clean heat credits that can be achieved by the sale of bioenergy, starting at 10% at the start of the program, reducing to 5% by 2030, and zero by 2040.
7. The overlap with Tier 3 of the RES. (page 19, 8125(j)) We are concerned that language allowing Tier 3 thermal sector investments to also earn clean heat credits will have an adverse impact on the effectiveness of Tier 3. In effect, the thermal sector end users who will ultimately be funding the clean heat measures will be paying for Tier 3 compliance. In effect, you might as well eliminate that portion of Tier 3. We would ask, why wouldn't an electric utility shift all of its Tier 3 efforts to the thermal sector, and reduce its cost of compliance? **Credits generated by actions required under Tier 3 of the RES should be retired** and not be tradeable by any party; it would then be appropriate for energy transformation projects beyond the RES requirement to earn tradable clean heat credits.
8. Technical Advisory Group. (page 21, 8126(b)) The TAG will play a critical role as the PUC develops this program. As described in S.5, there are two missing sets of knowledge and expertise that would strengthen the TAG. We urge you to include, among members of the TAG, expertise in accounting for sustainability (ecological economics), and expertise on greenhouse gas impacts related to upstream impacts, including land use changes and deforestation.
9. Public engagement process. (page 26, Sec. 5(c)) (new sec. 6) This section includes language allowing the PUC to ignore input, which should be eliminated.

Any engagement process should include full transparency, and require the PUC to fully respond to the concerns and ideas raised by members of the public.

A Few Questions

10. Default Delivery Agent. (page 6, 8124(f)) It seems possible that many of the Obligated Parties do not and will not have the capacity to undertake creation of Clean Heat Credits. In our estimation, it's going to be important not to underestimate the significance of this role. Since more than $\frac{3}{4}$ of all Vermonters are served through Obligated Parties that do not have an in-house program for reducing fuel use, it is worth considering that the Default Delivery Agent will actually be the provider of first resort rather than last resort for many fuel dealers needing those clean heat credits. There may be a role as a sort of broker for both Obligated Parties and Efficiency contractors. It seems likely to us that the Default Delivery Agent will play as important a role here as Efficiency Vermont has in the electricity world over the last two decades.
11. Fuel Bill Payer Protection. Is there a mechanism by which Low or Low and Moderate income Vermonters could be protected from increases in their fuel costs as a result of the Affordable Heat Act? As this program will simultaneously reduce the amount of fuel sold and increase the amount of required credits, those gallons of fuel will certainly increase in price, perhaps exponentially. LMI Vermonters should be protected from this burden.
 - a. While the increase, i.e. new credits each year, will be consistent, it should be expected that the cheaper greenhouse gas reductions will happen early, and achieving credits will become harder and more costly over the years.
 - b. The best protection against this kind of rate shock will continue to be funding from other sources, preferably progressively funded sources that rely more on the wealthy than on middle or lower income Vermonters, rather than funding through the clean heat credit mechanism.
12. Market Entry. How will this system manage the entry of new obligated parties? What will their obligation be for generating clean heat credits? These could or would draw market share from Obligated Parties, leaving these with a question of what their own credit obligations, both in terms of what their obligation is and who will foot the bill.

Thank you very much for the opportunity to testify today, and I'm happy to take any questions, now or later.