

Clean Heat Standard

Testimony of Stephen Crowley
for the
Vermont Sierra Club
House Energy and Technology Committee
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Benefits of the CHS

1. It establishes a system of reporting and accountability for this sector, which includes previously unregulated fuels.
2. Establishes a practice of life cycle accounting of thermal energy sources.
3. Establishes a third party, independent thermal energy efficiency utility (the default provider), to facilitate clean heat measures.

EQUITY

- 1. Engagement: in development, in the legislature, and in deployment.**
- 2. Costs: How will costs be passed along to low and moderate income Vermonters?**
- 3. Investment: Push back on energy burden by making clean heat investments for lower income first.**

BIOGENIC ENERGY SOURCES

1. “Energy from Life”
2. Comes with trade-offs that increase with scale.
3. Massive use of woody biomass → massive forest clearing
4. Extensive use of Energy Crops (biodiesel, ethanol) →
Takes land from food crops, and food from people
Intensive use of water, fertilizer, pesticides
5. Methane from agriculture demands large scale (CAFO) →
Impacts of waterways, air pollution, and human communities

AVAILABILITY AT SCALE

1. Studies demonstrate that at full scale, there is enough potential for RNG to supply only a small portion of our nation's natural gas demand.
2. How much energy crop can be grown without impacting somebody's food supply?
3. How much wood can we use for fuel before we impact the forest ecosystem, so essential for capturing and storing carbon?

LOCAL IMPACTS

1. Methane projects (renewable natural gas) or other biofuel sources can have major local impacts
2. **Vermont should only use fuels from projects we would have in our own backyard.**

LIFE CYCLE ANALYSIS (LCA) for Greenhouse Gas

1. Critical to get this right.
2. Transparency essential, both here in the analysis and at the project itself
3. Pitfall: shifting benefits from one part of the system to another
4. Pitfall: using an old source, without helping shift the carbon balance at all
5. Is someone paying attention to gaps in the system, leakage?
6. LCA in the CHS context should line up with the LCA work under the Vermont Climate Council

TECHNICAL ADVISORY GROUP (TAG)

1. Crucial link in the chain
2. Advises the PUC on clean heat measures and LCA
3. Good track record on Tier 3 of the RES
4. Concerns about getting the LCA right
 - a. Balance membership on the TAG; restrict obligated parties
 - b. Align LCA with Tier 3 analysis and methodology
 - c. Utilize appropriate LCA for electricity, without unbundled RECs and only 'retired' renewables here.

PARITY AMONG PLAYERS

1. New entrants into the market of importers/obligated parties
2. What if an OP sheds customers: retain credit requirement?
3. What about OPs with publicly funded efficiency operations (VGS, BED, etc.)? Will they continue to receive those funds, plus gain credits for using them?
4. What happens to credits generated by public investment through Efficiency VT, and other mandated efficiency fees?

PARALLEL PROGRAMS

1. Hold down costs by maintaining investments in incentive programs (the carrot)
2. Getting the CHS right (and all electrification) demands that we get the electricity sector LCA right
3. Limit expansion of infrastructure that will eventually become stranded assets
4. Enable communities to adopt measures limiting use of fossil fuel in new construction or substantial renovation.

THANK YOU FOR YOUR TIME