Testimony on Clean Heat Standard by Peter Sterling
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House Energy and Technology Committee
February 9th, 2022

REV believes that if implemented correctly, a Clean Heat Standard is a critical tool to reduce Vermont's GHG emissions. In terms of greenhouse gas reductions, enacting a Clean Heat Standard is the single highest impact recommendation from the Climate Action Plan. And requiring fossil fuel corporations to provide cleaner heating options and/or to pay for pollution reduction measures that benefit Vermonters is something we have long required of Vermont's utilities and has proven quite successful in reducing greenhouse gas emissions.

REV believes the current draft legislation includes some important components including:

- Ensuring biofuels are part of the mix in a Clean Heat Standard
- That all clean heat credits have to be delivered to households in Vermont and not used out of state
- For pipeline renewable natural gas to be eligible, both the gas itself and its associated renewable attributes must have a secured contractual pathway for the physical delivery of the gas from the point of injection into the pipeline to the party's delivery system
- That clean heat credits cannot be used to meet any other jurisdiction's clean heat standard or other jurisdiction's carbon-reduction requirements if that would result in double counting

But because the Clean Heat Standard rightly focuses on greenhouse gas emissions reduction and not the renewability of Vermont's electricity, I would like to raise a few points to that end here:

1. Don't repeat the mistakes of the RES by allowing the use of unbundled attributes or credits. Because RECs are generated from the production of electricity, RECs can be continuously sold as more electricity is produced. This has led to a situation in Vermont where utilities can purchase from the unlimited supply of cheap RECs from HQ to satisfy their Tier 1 requirement and then sell in state RECs they own from other non-net metered generation to other New England utilities. While this does lower the cost of electricity for Vermonters, it does nothing to bring more renewables on line and in effect harms efforts to reduce fossil fuel use to generate electricity in New England.

REC Arbitrage

Arbitrage is the near-simultaneous buying and selling of commodities in different markets in order to take advantage of differing prices for the same or similar assets. REC arbitrage occurs when RECs from one project are sold and replaced by less expensive RECs from another project.

A VERMONT EXAMPLE

| Project	Kingdom Community Wind
Owners	Vermont Utility Owned– GMP & VEC
Location	Lowell, VT
Commissioning Date	November 2012
Type	Wind
Size	63 MW
REC Qualifications	VT Tier I, CT-I, MA-I, MA CES, RI-new

In 2018, GMP could use a $27 REC from KCW or a $1 REC from HQ for Tier I compliance. Least cost principle suggests using $1 REC and selling KCW RECs into the MA, CT, or RI REC markets.
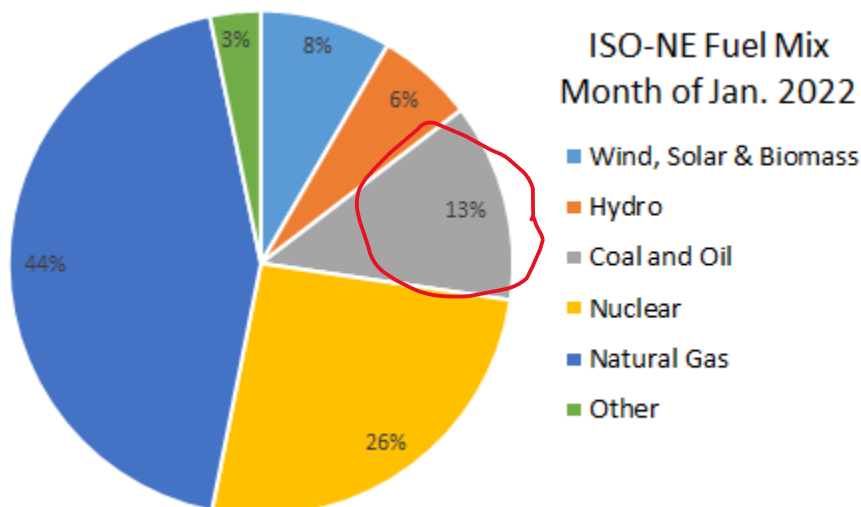
VERMONT

REV suggests adding language to the bill to allow a consumer who replaces a fossil fuel based thermal system with a clean energy system and powers it with renewable energy to receive additional credits

This will provide an important incentive towards the development of new renewable resources in Vermont. This system could function similar to the existing RES where a consumer who installs on site net metered PV solar has the option to either retire the credits they generate or get compensated if they chose to sell these credits back to a utility.

As we electrify, we need to have an accurate understanding of where our electricity comes from <u>before</u> accounting for the sale of RECs. The chart below showing that over 50% of the physical power delivered to Vermont in 2018 comes from nuclear energy and Hydro Quebec- certainly not the sustainable, renewable energy future we should be aiming for.
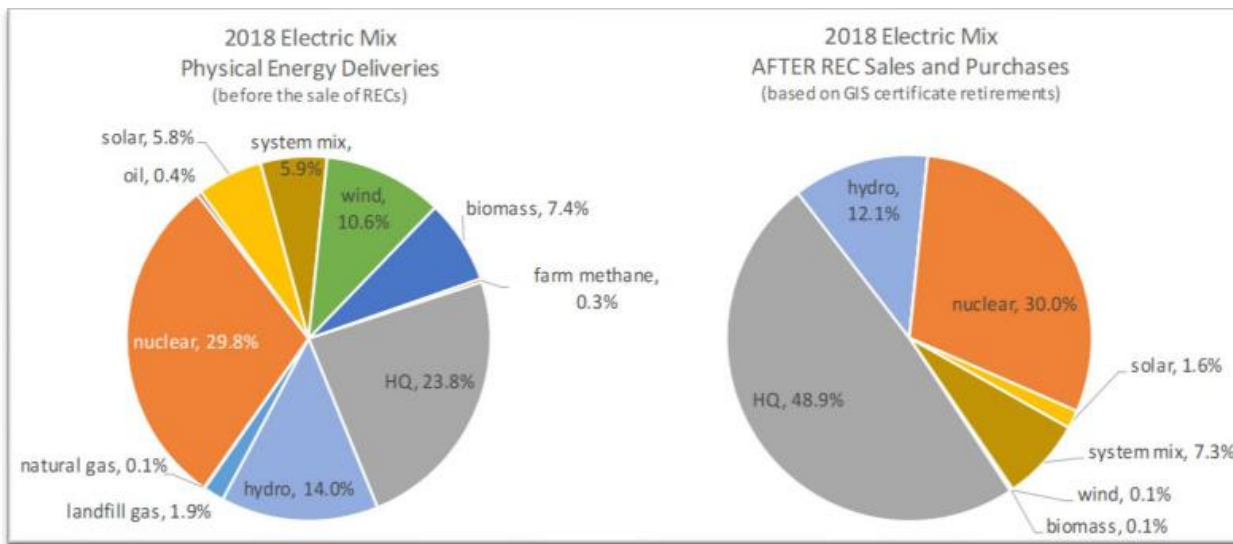
Below are two charts that highlight how the ISO NE fuel mix Vermont relies on for part of its electricity changes in the winter. Note the heavy reliance on coal and oil use when its very cold out and New England's limited supply of natural gas is prioritized for heating uses. For example, this ISO NE mix accounts for 22% of all the physical energy delivered to GMP in 2020.

ISO-NE Fuel Mix, Janaury 16th 2022

- Wind, Solar & Biomass
- Hydro
- Coal and Oil
- Nuclear
- Natural Gas
- Other
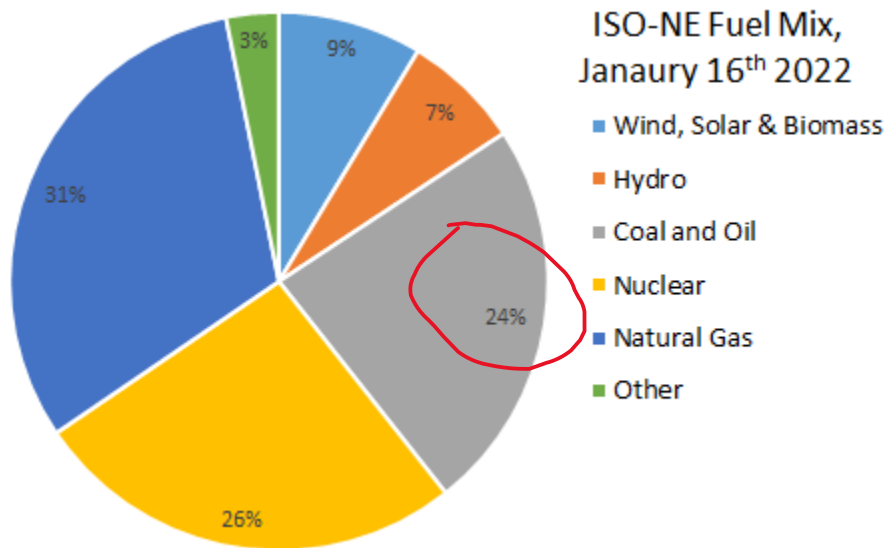
In sum, REV agrees with the Department of Public Service 2022 Comprehensive Energy Plan which states, "While Vermont has one of the nation's cleanest power supply portfolios, removing GHG emissions from the remaining percentage will be critical to supporting the deep decarbonization of buildings and transportation, Vermont's highest GHG-emitting sectors. As electricity use increases to accommodate these shifts, it will prove critical to ensure that Vermont utilities are supplying low-carbon and renewable electricity resources for maximum emissions reductions."

2. REV agrees with conclusion in EAN's Clean Heat Standard White Paper prepared for the Climate Council that, "… there are significant advantages to keeping the electric RPS Tier 3 requirements in place – in concert with the Clean Heat Standard. The policy appears to be working very well, with the state's electric utilities having developed an effective program infrastructure for delivering and documenting reductions in fossil fuel consumption. It would be better to build on that infrastructure than to tear it down and start the CHS from "ground zero".

In summary, I would like to reiterate that enacting a Clean Heat Standard with important safeguards for, among other things, ensuring that as Vermont electrifies we bring online additional renewable energy resources, is an important tool to lowering Vermont's greenhouse gas emissions. REV thanks this committee for all of its work on a very challenging legislative timeline to keep this important initiative moving forward

Thank you for your time today.