

TO: Members of the Renewable Energy Standard Reform Working Group FROM: The Northeast Clean Energy Council DATE: November 10, 2023 RE: Regional Perspectives to Inform Vermont's Renewable Energy Standard

Dear Chairs Sheldon, Bray and Working Group Members,

On behalf of the Northeast Clean Energy Council ("NECEC" or "The Council"), thank you for your efforts to assess changes to Vermont's Renewable Energy Standard ("RES"). Your work will be critical in determining whether Vermont acts boldly or loses ground; whether the state seizes on opportunities to expand its renewable energy sector and the many economic and environmental benefits this will bring, or not.

NECEC is both a trade group representing all of the clean energy segments, and a mission-driven organization working to advance the just, equitable, and rapid transition to a clean energy future and a diverse climate economy. NECEC is dedicated to growing the clean energy economy in Vermont and across the region. Our nearly 300 members include companies based in Vermont and those from elsewhere who do business here or hope to make future investments in the state.

NECEC counts Renewable Energy Vermont ("REV") as one of our close partners, and we are pleased to support the proposal advanced by REV and a broad coalition of Vermont environmental groups to reform the Renewable Energy Standard to get to 100% renewable energy by 2030 with a strong emphasis on the development of new renewables.

We urge your working group to recommend that Vermont update its RES to promote new in-state and regional renewable energy development in a manner that meaningfully contributes to the decarbonization of the grid. Such a design will be vital for the state to reach its decarbonization goals, especially as electric demand increases in the coming years. Strong RES goals for new renewable energy will bolster the efforts towards creating an electric grid that is stable, resilient, reliable, and modernized.

Modest Goals Will Not Suffice

While the state was an early adopter of low and zero-carbon energy thanks to the hydroelectric resources in the region and was ranked second in the nation for its progress on renewables back in 2017,¹ Vermont is ceding ground to other states.

¹ "Clean Energy Momentum: Ranking State Progress" Union of Concerned Scientists. April 2017. <u>https://www.ucsusa.org/sites/default/files/attach/2017/04/Clean-Energy-Momentum-report.pdf</u>

NECEC Comments - VT RES Reform Working Group

A 2023 analysis of Vermont's GHG emissions, conducted by the Agency of Natural Resources, demonstrated that the state is not on track to meet its upcoming commitments and that by 2030 will have realized only a 15% emissions reduction rather than the mandated 40% reduction.² Without additional decarbonization efforts, the state is projected to fall short of its promised GHG reductions.

To meet its decarbonizing goals, Vermont will have to electrify many aspects of daily life, especially in the transportation and residential/commercial/industrial (RCI) sectors.

Electrification of the state's building and transportation sectors will lead to increased demands on the electric sector. It will be necessary to ensure that renewable energy development keeps pace with the growing demand. By developing new renewable energy in-state and in-region, Vermont can ensure that emissions are not just being shifted to out-of-state fossil fuel generating stations, but are replaced with new, non-polluting energy.

The Case for a Bold Renewable Energy Standard

By creating more ambitious goals, the RES can become a forward-looking plan that not only ensures that Vermont is using renewables, but also encourages growth of energy supply in preparation for the coming years, increases the reliability of the electrical grid by bringing in newer, more efficient and diverse technologies, and creates new job opportunities for Vermonters. The following sections describe how an updated RES will strengthen the state's goals.

1. Developing New Renewables

The development of new renewables in the state and across New England will become increasingly necessary to meet demand and ensure grid resilience. Relying as heavily on existing renewables as the current RES does inhibits the development of new renewables in Vermont and New England when compared to the effect of state energy standards with more aggressive goals. A RES that specifically mandates new renewables in its Tier I category will better guarantee a clean energy future and a steady energy supply, safeguarding against potential shortages.

2. Reliability and Stability

Encouraging the deployment of new renewable energy through the RES will help the state create a more reliable, stable energy supply for Vermonters. Today's renewable energy technologies are proving to be much more resilient to weather than gas infrastructure, as evidenced by recent events.³ We encourage Vermont to minimize reliance on natural gas generation from out of state, and instead create a resilient renewable grid that can provide the energy necessary even during peak demand.

https://outside.vermont.gov/agency/anr/climatecouncil/Shared%20Documents/ Vermont Greenhouse Gas Emissions_Inventory_Update_1990-2020_Final.pdf

² "Vermont Greenhouse Gas Emissions Inventory and Forecast: 1990 – 2020" Agency of Natural Resources. April 2023.

³ "Winter Storm Elliott Report Highlights the Risk of Natural Gas Failures" Dana Ammann. NRDC. July 2023. https://www.nrdc.org/bio/dana-ammann/winter-storm-elliott-report-highlights-risk-natural-gas-failures

Another concern often faced in building a resilient and reliable grid is power outages due to broken power lines or transformers. The RES can also help here by increasing its distributed energy resources and local energy generation goals.

Diverse renewable sources, such as advanced solar and wind technologies, can contribute to a more robust energy grid. They can be further strengthened by ensuring the development of energy storage, either at a utility-scale or behind the meter. By diversifying the sources of renewable energy and bringing them closer to home, Vermont can reduce its vulnerability to disruptions, ensuring a reliable power supply for its residents and businesses.

3. Economic Growth

In addition to all the benefits to the electrical supply, a RES that requires renewable energy development can trigger substantial economic benefits for Vermont by creating new employment opportunities. Every renewable energy project requires the work of many people, from the physical installers to office managers, accountants, marketing agents, and other roles that make a business possible.

There are already many renewable energy businesses in Vermont that would greatly benefit from a stronger RES and likely many others that may one day be opened as the demand for renewable energy in Vermont increases.

The creation of clean energy jobs will be especially valuable to Vermont, which suffered from the worst case of "brain drain" in the country in 2022, a phenomenon in which educated Vermonters leave the state in search of better work opportunities.⁴ By promoting job creation through the RES, Vermont can retain and attract talent, as well as create better-paying, and healthier jobs for laborers.⁵

A Regional Perspective on Vermont's RES

We encourage Vermont to look to the experiences of its neighbors when determining how to design its updated RES. One of the most significant regional trends in RES design we are seeing are limits on how much pre-existing renewables can count toward state energy requirements.

By creating maximum limits for existing energy (or, conversely, minimums for new energy) the states signal their desire to see the development of increasingly more efficient and reliable technology and promote growth of the energy supply.

The following table gives a visual representation of the goals set by states in New England for the share of load that, per statute, must come from new renewables by 2035.

⁴ "States with the worst brain drain — and more!" Andrew Van Damm. Washington Post. Sept. 2022. <u>https://www.washingtonpost.com/business/2022/09/09/films-assigned-college/</u>

⁵"Executive Summary: Advancing inclusion through Clean Energy Jobs" Brookings. April 2019. <u>https://www.brookings.edu/wp-content/uploads/2019/04/Executive-Summary_2019.04_metro_Clean-Energy</u> <u>-Jobs Report Muro-Tomer-Shivaran-Kane.pdf</u>



New Renewables Required by 2035

Chart: Vermont Greenhouse Gas Emissions Inventory and Forecast: 1990 - 2020" Agency of Natural Resources. April 2023.

Maine, Massachusetts, and Connecticut all cap how much of their renewable energy can come from existing sources at between 30% and 35% of their load, while Rhode Island brings it down to 2%. This means that all these states plan to have a large majority of their renewable energy come from *new* renewables, which will allow them to take advantage of the new technologies and federal incentives in the development of their clean energy infrastructure.

In contrast to its neighbors, Vermont's current RES sets a modest goal of having just 10% of the state's energy come from newly developed renewables by 2035. This leaves considerable room for growth and development, which must become part of the state's strategy as its economy decarbonizes and electricity demand increases.

The RES designs of neighboring states can serve as a valuable reference, offering assurance that Vermont can make substantial strides in advancing its renewable energy goals. Adopting a RES that better aligns with the regional trends could be a deciding factor in whether Vermont will be able to enjoy all the secondary benefits that come from renewable energy development and whether the state will match its peers in contributing to the decarbonization of the electric sector.

If the state continues to rely on imports for its renewable energy goals, it will miss out on the economic benefits that come with in-state development.

A Roadmap for Progress

The challenge facing Vermont is to ensure that the new renewables are deployed at a rate to keep pace with increasing electricity demand and to displace the current fossil fuel use, and that state programs are designed to promote the development of a reliable and modernized grid.

NECEC encourages the Working Group report to reference the goals developed in H.320 and supported by Renewable Energy Vermont and Vermont's leading environmental groups. These include:

- Requiring 100% of Vermont's electricity come from renewable resources by 2030
- Capping energy purchases from existing renewable sources at 40% by 2035
- Increasing the in-state renewables purchasing requirement to 20% by 2030 and 30% by 2035
- Creating a new "new renewable energy" purchasing requirement of 30% new renewables of any size from within New England by 2035.⁶

In conclusion, a forward-looking RES can solidify Vermont's reputation as a renewable energy state. By both leveraging the existing renewable infrastructure and fostering new investments in in-state and regional generation, the state can advance its commitment to a renewable and resilient energy future that increases economic prosperity for Vermonters as we enter the era of electrification.

On behalf of NECEC and our members who are rooting for Vermont to harness the potential of renewable energy, thank you for the opportunity to provide these comments. We stand ready to answer any questions that the Working Group may have.

Sincerely,

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⁶ See the following link for the full bill. <u>https://legislature.vermont.gov/Documents/2024/Docs/BILLS/H-0320/H-0320%20As%20Introduced.pdf</u>