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**Vermont Agency of Natural Resources**

Office of Planning

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Vermont Public Service Department,

Thank you for the opportunity to respond to the Public Service Department's (PSD) initial request for input on comprehensive review of Vermont's renewable and clean energy policy and programs.

The Vermont Agency of Natural Resources (Agency) is a statutory party to the Public Utility Commission (PUC) **30 V.S.A. § 248** Certificate of Public Good process and is required to provide the PUC evidence and recommendations regarding any findings to be made under Sec. 248's environmental criteria. The Agency is also deeply committed to the work of climate change mitigation, adaptation and resilience in Vermont and understands the important role the state's electric generation sector plays in that work.

**Topic 1: Timeline for Policy Review and Stakeholder Engagement**

The Agency strongly supports PSD's proposed 18-month timeline over the seven month alternative. As the lead agency supporting the Vermont Climate Council's development of the Vermont Climate Action Plan, we cannot stress enough how critical it is to build adequate time for meaningful public engagement into a process like this, and to move at the speed of trust, especially with frontline and impacted communities. The Agency is in the process of standing up a new Climate Action Office (CAO), which among other priorities, will help coordinate outreach and education on climate issues statewide. The CAO has already committed to support PSD with stakeholder engagement related to this process and will not be able to do that adequately within a shorter timeline. We understand the 18-month engagement timeline also aligns with the recommendation, as approved in the Vermont Climate Action Plan and Compressive Energy Plan, which does not prioritize the need to adopt a 100% RES until 2030.

**Topic 2: Decision Criteria**

From the Agency's perspective, the highest priority criteria for Vermont's renewable and clean electricity policies and programs are:

- Avoiding harm from the siting of new generation to Vermont's forests, wetlands, and other natural resources that sequestration and store carbon, and those that are important for climate change adaptation and resilience.
- Maximizing net-GHG/kWh reductions when encouraging new generation.
- Minimizing the cost of new renewable and clean electricity policies and programs, in order to maximize the opportunity for public and private investment in emission reductions in the transportation, building and agricultural sectors.
- Ensuring equity as it relates to both energy and environmental burden and benefits, through appropriate rate structure, programs and adequate regulatory due diligence to ensure natural resources are protected and environmental justice principles are honored as more in-state facilities are deployed.

Avoiding harm from the siting of new generation to Vermont's forests, wetlands, and other natural resources.

Vermont's natural and working landscape is our single most valuable asset to counter climate change and ease our transition to a future climate state. Maintenance of our forested landscape is necessary for Vermont to reasonably achieve a net-zero condition by 2050. The Climate Action Plan Carbon Budget found that net sequestration by Vermont's agricultural, forestry and other lands currently offsets about 41% of the State's gross GHG emissions – the vast majority coming from the state's forests and a disproportionate amount from Vermont's wetlands, which are especially good carbon sinks<sup>1</sup>.

In addition to their carbon sequestration and storage benefits, Vermont's natural and working lands are critical tools that blunt the impact of our already changing climate, making our communities more resilient, and provide pathways for the ecological connectivity and adaptation necessitated by climate change<sup>2</sup>.

Unfortunately, Vermont's natural and working lands are under significant development pressure which will only increase with the state's likely increase in population as other parts of the country become less and less habitable due to rising temperature, seas and from drought. Any renewable and clean energy program or policy Vermont pursues in the future must elevate protection of a healthy and ecologically functioning landscape above all other priorities, since without it our climate goals are effectively out of reach.

The Climate Action Plan is explicit in this regard, stating on page 202:

*Critically, if alternative sites are reasonably available, new renewable generation infrastructure, like other land development, must avoid and minimize to the greatest extent possible impacts on Vermont's forests, which support a range of ecological services critical for climate resilience and adaptation and provide the single largest source of carbon sequestration and storage in the state. Analysis conducted for the Council by Cadmus indicates that Vermont has seen a steady decline in sequestration. If that historic trend continues the state will not meet the GWSA's 2050 net zero target, even if the 2025 and 2030 emission reduction targets are achieved. The Cadmus analysis indicates Vermont must maintain sequestration at or above projected 2035 levels in order to be net zero by 2050 – since forests provide by far the greatest share of the state's sequestration, all efforts should be made to locate new renewable energy infrastructure outside of forests and minimize tree clearing associated with new plants.*

Maximizing net-GHG/kWh reductions when encouraging new generation.

As Vermont's electric supply becomes cleaner, the relative GHG reductions resulting from each new plant becomes more and more important. Plants that have high embodied emissions resulting from clearing forested sites, disturbing large areas of soil, high amounts of concrete or other factors, will take longer to displace those embodied emissions and provide a net-GHG reduction to the atmosphere than plants that lack those elements. Good site selection, design and appropriate scaling of projects that drive low embodied emissions should be prioritized, as should further integration of storage at scale.

Minimizing the cost of new renewable and clean electricity policies and programs.

Vermont's 2018 GHG inventory found that the electric sector contributes 2.1% of the state's total emissions, and that other sectors account for the vast majority of state emissions: transportation –

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<sup>1</sup> Vermont Climate Action Plan, 2016 – pg. 60

<sup>2</sup> Vermont Climate Action Plan, 2016 – pg. 169

39.7%, buildings – 33.9%, and agriculture – 15.8%<sup>3</sup>. While many transportation and building sector emission reduction solutions will result in increased electric load, the current RES framework will deliver adequate renewable energy supply to meet anticipated increased electric demand through at least 2030<sup>4</sup>.

Given the electric sector’s relatively low emissions and existing programs that deliver enough renewable electricity to meet demand through 2030, near and mid-term public and private climate investment must focus on other sectors, and electricity costs should be kept as low as practicable to meet current RES goals and maintain a reasonable trajectory to support a 100% RES beyond 2030.

The standard offer, through its reverse auction, has been successful in driving down costs. Scale is another strategy to reduce dollar-per-kWh costs. At least two solar photovoltaic plants greater than 10MW have been permitted in Vermont, with additional plants in the 15 – 20MW scale in predevelopment. These larger facilities contract with out of state utilities, in large part due to the current RES Tier-2 5MW cap.

One programmatic strategy to deliver more clean and renewable energy at a low cost is to create a RES category for a limited number larger in-state facilities and allow Vermont distribution utilities to benefit from the efficiency of scale of larger projects. Given the large footprint of these plants, any program should include pre-screening requirements for environmental and equity impacts in addition to the current requirements of Section 248. Any new clean and renewable energy policies and programs should also strongly consider opportunities to source low-cost resources from within the ISO-NE region.

The Agency encourages continued support for true net metering at the residential and small commercial scale, on the property generating the load, and especially on existing structures or other already developed sites, provided those program costs are reasonable. Opportunities to net meter for clearly defined community or equity-focused projects is another concept the Agency encourages PSD to explore through this process.

#### Ensuring equity as it relates to both energy and environmental burden and benefits.

As Vermont envisions programs to significantly increase in-state energy generation, issues of environmental justice, equity and natural resource protection must be front of mind. Vermont has a history of energy siting projects that have raised community concerns, potential environmental justice issues, and have in some instances led to setbacks rather than progress for our renewable energy goals. In developing programs and policies that will elevate energy generation to a major land use type in Vermont, we must maintain and expand our regulatory protections for people and the environment, not diminish them. With good planning, good policies and with an effective regulatory framework, the state can achieve its renewable energy goals while maintaining a climate adaptive and resilient landscape, protecting the most vulnerable and creating opportunities for frontline and underserved communities.

### **Topic 3: Key Issues for Consideration**

In addition to and in support of the priorities set forth above, the role of expanded land use planning at the regional and local scale should also be considered through this process. Act 174 of 2016 established a set of regional and municipal energy planning standards and required regions to develop enhanced energy plans, while authorizing municipalities to develop municipal enhanced energy plans. Provided the regional or local plans met the standards, the plans receive increased deference in the PUC’s Section 248 review process.

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<sup>3</sup> Vermont Climate Action Plan, 2016 – pg. 65

<sup>4</sup> Vermont Climate Action Plan, 2016 – pg. 103

The analysis conducted by PSD and the state's regional planning commissions in support of Act 174, and the regional and many municipal enhanced energy plans developed in response to the Act, are an excellent first step in comprehensive energy planning; however, as the state contemplates potentially significant increases in in-state deployment a commensurate increase in energy/land-use planning is necessary<sup>5</sup>. The Agency supports PSD in exploring new planning standards, opportunities, and requirements, and supports additional capacity and resources to conduct this work in a comprehensive, equitable and inclusive way.

Thank you for the opportunity to comment,

/s/ Billy Coster

Billy Coster

Director of Planning

Vermont Agency of Natural Resources

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<sup>5</sup> Vermont Climate Action Plan, 2016 – pg. 202