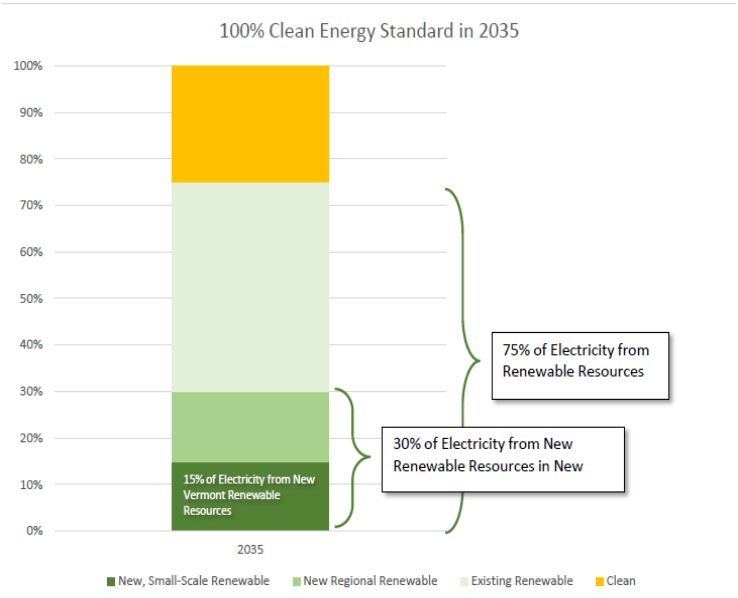
Public Service Department Proposal to Affordably Triple New Renewable Energy Requirements while Ensuring Utility Procurement of 100% Clean Energy and Supporting Community Renewables.

Provided to House Environment and Energy and Senate Natural Resources and Energy Committees

Current State: Tier I of the current Renewable Energy Standard (RES) requires 75% of annual Vermont electric utility retail sales be met by renewable resources of any type (including imports into New England) by 2032, largely measured by the retirement of Renewable Energy Certificates (RECs). Tier II of the RES requires Vermont's electric utilities to procure on an annual basis, by the same year, 10% of their retail sales from small scale renewable resource connected to the grid. Most of Tier II requirements have been met by net metering resources. While net metering is structured to provide the ability for Vermonters to generate their own renewable energy, many Vermonters, particularly those with limited means, still cannot or do not participate in the program. Net metering is also the most expensive way to procure renewable electricity in Vermont.

Proposal: The Public Service Department (PSD), after 18 months of substantive public engagement and technical analysis, has developed a proposal that endeavors to balance competing priorities of affordability, emissions reductions, reliability, equitable access to renewable energy, and in-state economic development. Engagement showed Vermonters continually ranking affordability, emissions reductions, and reliability as their top priorities when considering their electricity supply. The proposal has several components to further those priorities, all continuing to be measured annually through retirement of RECs. Each component is described in more detail below.



- **100% Clean by 2030**, while maintaining the current 75% renewable energy by 2032.
- Within the 75% renewable energy above, **30% new renewable energy by 2035** from any new project (commissioned 2010 or later) that can deliver energy into to the ISO-NE grid.
- Within the 30% new renewable energy, **15% new distributed renewable energy by 2035** from any new project (commissioned 2010 or later) that is interconnected to the Vermont distribution system - Increasing the current Tier II in-state renewable requirement - and enabling the "rehoming" of RECs from Vermont-based projects built prior to the enactment of the RES.
- **Changes to the current net-metering program to offset additional costs** associated with the above requirements by requiring the Public Utility Commission to modify compensation for net-metering "excess generation" to a level equivalent to the value of the generation.
- **Develop a Successor Mechanism to the Standard Offer Program for Community Renewables** and to support larger distributed generation: replace group net metering with a **requirement for utilities to procure 10-15MW per year** of small-scale solar projects that are designed to be

delivered for community benefit. These would contribute toward the utilities' new & in-state renewable energy requirements above.

- Prepare for the Future: Require and fund the Public Service Department to complete several studies researching specific opportunities for measuring requirements on a more granular basis than annual, and impacts to the distribution and transmission system of distributed generation and electrification.

Collectively, based on the foundation of technical analysis completed with input from a diverse Stakeholder Advisory Group and with nuance described further below, the Public Service Department **estimates an approximate 1% incremental rate impact from these changes.**

100% Clean by 2030. Moving to a 100% low/no emissions portfolio signals Vermont's commitment to clean energy, and significantly reduces emissions as tracked by Vermont's greenhouse-gas inventory. [1] Many Vermont utilities have either already met this metric or are well on their way to doing so. This proposal directly responds to the priorities Vermonters articulated over the past 18 months by requiring that utilities show they have annually procured zero-carbon emitting resources equivalent to their total sales. Vermonters were clear that *affordability, emissions* reductions, and *reliability* were top priorities.[2] A 100% Clean requirement provides a recognition that nuclear may be included in/count toward the portfolio. The proposal for 100% clean by 2030 recognizes that many Vermont utilities have embedded contracts for low carbon nuclear power through 2034, and that regardless of whether Vermont officially includes nuclear as part of its portfolio, the nuclear facilities in New England provide a valuable reliability service that Vermont depends upon and are likely to continue to depend upon. A 100% Clean requirement is likely only slightly less costly than a 100% Renewable portfolio requirement, with equal emissions impact between the two policies, but recognizes the reliability that nuclear brings to the region. The current 75% renewable by 2032 remains largely unchanged. [3]

30% New Regional Renewables by 2035. Only new renewable or clean electricity directly avoids greenhouse gas emissions. Because of the emphasis Vermonters placed on emissions reductions in engagement efforts, this proposal creates a new requirement under the RES for utilities to retire RECs from qualifying renewable energy projects delivering electricity within or into New England that were built after 2010. This requirement would encourage utilities to pursue offshore wind and other similar new renewable projects that can help to provide generation at the time of year when demand is expected to be the largest. The retroactive date is intended to reflect the policy decisions that Vermont has made over the last 15 years, and allow utilities to count renewability from Vermont-located resources (and help mitigate costs). The regional Tier also gives flexibility for utilities to procure from

[1] Vermont's Greenhouse Gas Inventory tracks emissions according to the disposition of Renewable Energy Credits. Neither a 100% Clean or 100% Renewable Energy Requirement directly reduces emissions from what they would have otherwise been, because they assign Credits from existing resources to Vermont. However, Moving to a 100% target (either clean or renewable) also reduces somewhat Tier 3 obligations (by removing penalties for electrification served by partially non-carbon free facilities).

[2] When asked to name their single most important factor, in how Vermont gets its electricity, affordability (29%), emissions (19%), and reliability (17%) were a clear priority. Whether the source was renewable was the top priority of 8% of respondents, and whether the source is produced in-state was the top priority of 1% of respondents.

[3] The RES targets proposed here are a percent of total sales, including losses. The current RES is structured as a percent of *retail* sales, which do not account for the supply that must be procured to deliver energy.

either within or outside of Vermont. A stable alternative compliance payment will contain high-end price risk.

Engagement revealed some concern over new, large-scale flooding for purposes of electric generation, citing both lifecycle emissions and equity concerns. Because New England has low potential for large scale flooding, and sufficient existing resources are available to Vermont from Quebec, there is no estimated cost to excluding from eligibility large new hydro, and some potential environmental benefit. Thus, *new* large-scale hydro may be excluded from eligibility.

15% New Distributed (Vermont) Renewable by 2035. This proposal increases slightly "Tier II" - the amount of new renewable to come from within Vermont, extending the compliance date to 2035. It is embedded as a subset of the broader 30% New Renewables tier (Vermont-based distributed generation above 15% would also be eligible for the Regional Tier, allowing for the potential to meet requirements locally. As with the above new renewable tier, municipal and cooperative owned hydroelectric and landfill gas plants should be allowable as an eligible resource. In addition, for Self-Managed Utilities (GlobalFoundries), projects located on their own property are proposed to be exempt from the current 5MW project size cap. A stable alternative compliance payment will contain high-end price risk.

Exemptions proposed to include in this Tier (also applying to Regional Tier above):

- Municipal and Cooperative utility-owned hydroelectric and landfill gas plants, recognizing the decisions those local governmental entities have made to procure renewable power long ago.

- Utilities currently at 100% Renewable have obligation reduced to only apply to increases in electric consumption above 2023 baseline.

Net Metering Changes

Net Metering remains the most expensive new renewable resource delivered to Vermonters. It also provides the opportunity for Vermonters to produce their own electricity. Directing the PUC to compensate "excess generation" (electricity that is generated in an amount greater than on-site consumption) at "avoided cost" – the value that the generation provides – will significantly reduce costs to ratepayers for new projects. This is likely to have the effect of limiting "group" or "virtual" net metering installation rates (replaced in part via new Community Renewable Energy programs described below), encouraging distributed generation supported by the program to that where there is connected load. While correcting compensation is likely to be the most cost-effective, a simpler mechanism could be to require all net metering generation to be offset by on-site consumption. One (or both) of these changes are critical to cost containment and the proposal would not be viable without them (because of undue rate pressure).

Community Renewable Energy

In order to continue to provide broad access to renewable energy beyond those that have historically had the resources to participate, and to "replace" group net metering, require utilities to solicit 10-15MW per year of renewable energy through a public solicitation, starting in 2025. These solicitations will need to follow guidelines established by the legislature, and details determined via a Public Utility Commission proceeding (following public engagement by the PSD) that would seek to ensure benefits of these projects are "community" based and equitably distributed.

Preparation for the Future

In addition to the changes proposed above, research is necessary to further evaluate the impact of significant increases in renewable energy deployment (whether under business-as-usual or increased investments). The General Assembly should require the Department of Public Service to complete an analysis, by March 2025, that examines (1) the potential for the Renewable Energy Standard to account for renewable energy on a basis more granular than annual (e.g. seasonally, monthly, or hourly), (2) the benefits and costs to distribution and transmission infrastructure of increases in distributed renewable energy. Any such requirement should come with associated funding to fulfill the requirement. The above two tasks are estimated to cost approximately $350,000.