December 2, 2016

Mrs. Judith Whitney, Clerk
Vermont Public Service Board
112 State Street, 4th Floor
Montpelier, VT 05620

Re: Revised net-metering rule pursuant to Act 99 of 2014

Dear Public Service Board Members,

Renewable Energy Vermont appreciates the opportunity to provide comments on the final proposed net metering rule (5.100). The extensive work of the Public Service Board and staff to diligently consider public comments and make continued improvements throughout this long process is sincerely appreciated.

REV appreciates the Board's recognition of the value of solar and small, customer originated distributed generation by maintaining a more holistic value for net metering credits for many customers. Small renewable energy net metering projects offer great value and benefits to all Vermonters - particularly community resilience and grid efficiency that larger utility scale projects do not create. Small net metered projects are realistically the only way for customers, whether home, business, or institution, to have ownership and control of their energy future, making this a vital program. Recent solar studies completed in Vermont[1] and in states all over the country consistently found that renewable distributed generation provided significant value above retail rates. REV appreciates improvements to the final draft rule including elimination of annual market disrupting caps and continued commitment to grandfathering existing systems. REV requests that the final rule maintain these improvements.

With the goal of further improving the rule, REV requests that the Board consider fundamental issues impeding the State's ability to meet its statutory greenhouse gas reduction (by which recent emissions have actually increased) and renewable energy commitments, and unintentionally penalizing net metering customers. The comments below are organized into three categories: new substantive and priority issues; technical clarifications and corrections; and other remaining issues of serious concern.

Priority Issues

Keep community solar viable in Vermont. State law explicitly states that net metering should be accessible to all customers. REV is deeply concerned that the increased permitting burdens, substantially lower net metering credit rates below retail value for non-preferred locations, limited number of preferred locations available and higher costs of developing renewable energy projects at these sites create insurmountable barriers to Vermonters who do not have property or roof space suitable for solar but want renewable energy. States across the country are taking Vermont's lead and

[1] Evaluation of Net Metering in Vermont Conducted Pursuant to Act 99 of 2014, Vermont Public Service Department, November 7, 2014 (revised version).

now expanding net metering community solar programs, but unfortunately this draft rule takes Vermont backwards.

A. **<u>Solution:</u> Allow small community solar projects sized 150 kW & less where 50% or more of the customers are residential or small business and no single customer is off taking more than 50% to qualify for Category II or III net metering credits.**

Residential community solar net-metering systems feasibility will suffer greatly under the final proposed rule. Under the rule's proposed rate structure, financing these projects will be extremely difficult, making them non-viable and eliminating customer choices. Further, the limited number of preferred locations available and higher costs of developing renewable energy projects at these sites will have a particularly burdensome impact on Vermonters who do not have property or roof space suitable for solar and want affordable choices.

Requiring a minimum of four customers for such a provision would further ensure the projects are community solar.

B. **<u>Solution:</u> Simplify the CPG process for community net-metering systems that are more than 50% customer-owned, per Act 174.**

As written, the proposed final rule makes applications of small projects (approximately 1 acre or less) from 50 kW to 150 kW significantly more complex. Nearly all of Vermont's existing community solar projects (particularly those 50% or greater customer-owned) fall into this category. The current process involves a form covering Section 248 criteria that could be completed in less than a day relying upon readily available maps and information available online from State agencies such as ANR. The proposed final rule will require comprehensive Section 248 applications for these smaller projects that could necessitate weeks to complete, hiring of legal counsel and environmental permitting experts, and securing certified letters from multiple state agencies (even when permits are not required and no resources are impacted or even near the project). We estimate an upfront minimum cost of tens of thousands of dollars and more prior to CPG application. This level of procedure for small projects imposes an unwarranted time delay and economic burden that is not proportionate and threatens economic feasibility. Such requirements also unnecessarily increases state agency workloads, delaying projects and application review. Small, community scale projects cannot afford to hire attorneys, environmental consultants, surveyors, etc. and should not need to absent exceptional circumstances. To remain viable, small projects need a reasonably affordable and simple path to permitting.

More complex processes do not necessarily result in better processes and outcomes. REV requests that the Board encourage projects in "preferred locations" by reducing their permitting and hearing burdens. Further, the comprehensive Section 248 application process (requiring letters from state agencies before a CPG application can be submitted) has also become more complex, lengthy, and costly for ALL projects. The new application process even exceeds that requested by the Agency of Natural Resources. REV implores the Board to consider more reasonable alternatives to the final rule's requirements and to keep existing processes that are working for smaller net metering projects. For example, improving forms with more comprehensive directions to

applicants (similar to Act 250 applications), which would adequately inform applicants and avoid inadvertent completion issues.

C. Preserve the ability (by specifically allowing continuation) for pre-existing and new customers to transfer accumulated unexpired net metering credits to other members within a group.

Group net metering is an equitable program that allows all customers to avail themselves of the benefits of solar, regardless of their living or business situation (e.g. renters and condominium owners), financial situation (e.g. the ability to pay for the upfront costs of solar), or location (e.g. shaded roof). With non-bypassable charges to be imposed on pre-existing customers after 10 years, many will now have excess credits given to utilities for no compensation because their systems were sized to meet their total energy needs. This will lead to stranded investments for Vermonters who took early risks to help the State achieve its renewable energy goals. Allowing customers (via group administrators) to transfer these credits as they choose will not deter benefits or incur costs to other ratepayers. Many solar customers already donate credits to non-profits, or would like to transfer those credits directly to their low income neighbors, family, or others rather than simply enhance utility revenues.

Additionally, pre-existing groups currently rely on the transfer of bill credits independent of the ownership of the system, working collaboratively with utilities without causing hardship. Reasonable allowance of transfer enables group customers to fully utilize the output of their systems without adding additional group members. Credit transfers are a critical component of successful community solar projects and should be allowed under the rule. REV also requests that the Board preserve the group administrator's right to specify the allocation method employed in managing the generation credits.

Suggested fix: Rule 5.128(B) – delete "Bill credits may not be transferred independently of a transfer of ownership of a net metering system." At a minimum, REV requests that this provision not apply to preexisting net-metering group systems under the proposed final Rule 5.124(l)(4).

D. Authorize net metering projects with official letters of support from a town's Select Board and/or Planning Commission to qualify as a "preferred site" under category (7) (page 9) definition and be eligible for Category II siting adjustors.

Category 7 of the "preferred site" definition should not be limited to only specific locations designated in a duly adopted municipal plan. The definition should also include projects which submit official letters of support from the Select Board or Planning Commission from the municipality where the project will be located. Implementation of town energy planning as part of Act 174 is just beginning. Given that the municipal plan amendment and reconsideration process is quite lengthy, and towns are just beginning to contemplate comprehensive energy planning and siting, community solar projects with local support will be unnecessarily stalled for potentially 2 years or more.

This solution provision could even sunset after a reasonable period of time, such as three years. An expedited methodology and low threshold for towns to identify or categorize preferred locations is vitally important to sync Act 174 with these new net metering rules.

Keep it simple for customers and allow reasonable flexibility.

A. **Encourage Vermonters to adopt clean energy transportation and heating solutions by exempting residential and small commercial customers from system change penalties.**

Net metering should be simple for customers and allow reasonable flexibility. Customers make efficiency, renewable energy, and transportation improvements over time, as they cannot afford to do it all at once. Under the proposed final rule existing customers lose their adder or adjusters and have no REC choice options even for small system changes, which will have the effect of discouraging improvements such as renewable energy expansion, the purchase of electric vehicles, and installation of efficient cold climate heat pumps. Limitations to new or multiple group net metering for individual residential accounts exacerbates the problem, particularly for community solar customers.

Suggested fix: Rule 5.103 definition of "Amendment" (1)(a) revise and consider a "minor" amendment definition (2)(c) for residential or small business customers who are only increasing the nameplate capacity of net-metering system's sized less than 35 kW by no more than 20%.

B. **Returning to a simple account based customer definition and eliminate customer cumulative caps.**

Many net-metering customers, particularly public entities such as schools, towns, Vermont state government, local businesses, colleges, and other public institutions, are responsible for more than one account and have multiple buildings at different properties across multiple utility service territories. Testimony submitted from several utility's notes that the new complex non-account based customer cumulative calculations are not feasibly implemented by their billing systems, creating enforceability issues. Central account tracking of all facility accounts is particularly problematic for newly unifying school districts, small towns, medical centers, and even the Vermont state government.

The compliance risk alone for these customers deters any new net metered projects even if they are not already capped out by the 500 kW per customer cumulative limit. Rule 5.128 (D) inadvertently conflicts with the Board's preferred location goals and precludes facilities from hosting projects on or near load sites.

Suggested fix: Amend the definition of "customer" to clarify that "a customer may be responsible for more than one account."

The statutory definition of a net metering system as an electric generation plant "of no more than 500 kW capacity" (30 V.S.A. § 8002(16)), clearly applies the net metering size limits to a generating plant, not a customer or site location. A 500 kW net metering limit

should be applied a single generating plant, consistent with statute, not cumulatively over multiple properties and facilities. Many facilities and customers are now effectively capped out from net metering access and the problem is exacerbated as schools consolidate to comply with Act 46.

For example, under the final rule the State of Vermont is one customer, and the electricity used in the State Street building that houses the Public Service Board itself, would be prohibited from having the solar that currently powers its facility and reduces taxpayer costs under the current law. This circumstance could occur many times over throughout the state.

This cumulative customer limitation is directly inconsistent with and contrary to Vermont's comprehensive energy plan and renewable energy goals.

There are already protections in the rule that would prevent an account based or project based size limitation from becoming problematic. Cumulative customer limits unnecessarily remove access to renewable energy and choices for many facilities. While REV supports eliminate the 500 kW customer cap, at a minimum, customers should be permitted to petition the Board to exceed the cumulative limit based on considerations such as the number of accounts and facilities. New cumulative caps not based on accounts or facility generation run counter to the Legislature's intent and may exceed the Board's delegated authority.

<u>Encourage net metering customers and utilities to achieve clean energy and climate commitments by retaining and retiring RECs based upon fair market values.</u>

A. The duration of REC adjusters should reflect fair market value.

REV appreciates the Board's recognition that RECs produced by customer-owned renewable generation have economic value. They are a property interest that is protected by the Vermont and United States Constitutions from government appropriation without just compensation.[2] The termination of REC value after 10 years for no compensation is an unconstitutional taking.[3] While REV recognizes that it is at the customer's discretion whether to concede the REC to the utility or retain it for their own use, the penalty associated with keeping the REC raises additional serious concerns regarding takings. Further, the transfer of value from Vermont renewable owners to their utilities without proper compensation may contravene Federal Trade Commission rules for REC markets.

<u>Suggested fix:</u> (2)(a)(iii) After the first 10-year period, a zero or positive REC adjustor value will be based on a fair market value average, or a utility can elect to purchase the REC at a fair market value average in lieu of future adjustor payments. (page 40). Repeat this concept at other appropriate places throughout the rule.

[2] U.S. Const. Amend. 5; Vt. Const. ch. 1, art. 2. See also 30 V.S.A.

[3] See comments on this issue filed by Scott Woodward dated March 10, 2016.

REV offers further comments on REC's in response to issues raised at the November 2016 public hearing regarding REC retirement. To address concerns about tracking of net-metering RECs, REV recommends that the rule authorize residential and small business individual and community solar customers to retire RECs via an affidavit and under penalties of perjury. The CPG holder for each such community or off-premise system would also execute an affidavit that certifies that the CPG holder's contract with the net-metering customer authorizes the election and REC retirement in Vermont.

Technical Clarifications & Corrections

A. **Clarify the definition of pre-existing systems.** (Rule 5.124)

These provisions must include all net-metering systems that were authorized under law or Board Order prior to the sunset of 30 V.S.A. § 219a – whether such projects have existing or pending CPG applications -- are effectively "grandfathered" into the new net-metering program fairly and equitably under the rules that were in place at the time of the application, including the rates that were in effect prior to 1/1/17. In order to achieve this intent, the Rule must not exclude, inadvertently or otherwise, certain systems that were properly authorized. As drafted, REV believes Rule 5.124 is too narrow and does not include all systems that were authorized under the law as it existed prior to January 1, 2017.

Suggested fix: At Rule 5.124(A)(2) include a definition of pre-existing systems that includes the following:

(1) Applications filed at a time when the electric company was accepting net-metering systems pursuant to 30 V.S.A § 219a(h)(1)(A) as the statute existed on December 31, 2016; or

(2) Applications authorized under Section 1a of Act 99 (2014), or

(3) Applications filed under Green Mountain Power's supplemental net-metering program, as authorized by the Vermont Public Service Board's Order in Docket No. 8652, dated June 24, 2016.

With respect to category (2), REV notes that Section 1a of Act 99 was enacted as a so called "session law", i.e., it does not amend 30 V.S.A. § 219a and thus definitionally cannot fall under category (1). Rather, section 1a of Act 99 is a standalone law with independent force and effect that needs to be separately recognized under the Rule. With respect to category (3), the Board's June 24th, 2016 order authorized Green Mountain Power's acceptable of 7.5 MW of met-metering capacity above the 15 percent net-metering cap established by 30 V.S.A. § 219a(h)(1)(A).

B. **Clarify grandfathering rate provisions.**

The rule needs to clearly state that pre-existing customers receive value for their net metering credits after 20 years at a utility's retail rate for that customer class (floating as adjusted). The grandfathering provisions of the proposed final Rule 5.124(C) do not maintain the existing methods for calculating the portion of net metering credits that

are based on a utility's residential rate (which fluctuates as rates change) for pre-existing customers. Net metered credits are not incentives but fair compensation for the benefits that these systems provide to all Vermonters. Customers installed and invested in systems relying upon the rules at the time projects were installed and that they would be fairly credited for the life of the system. As at least one utility has stated for utility owned projects, costs are typically financed over a 25-year term. The proposed final rule's impacts to existing systems after the grandfathering provisions have expired, undermines owner's abilities to finance projects.

While REV contends that new customers should also continue to receive fairly valued net metering credits after 20 years at no less than statewide residential blended rate or the utilities residential rate, we recognize the Board's concerns about future uncertainty. Net metering is intended to offset a customer's use and should not be credited at a value less than what the customer's self-generation is off-setting. However, as a minimum alternative to address cost concerns, the Board could allow a utility to propose that for new net metering customers, after 20 years excess net metering credits should be valued at no less than a utility's retail rate minus the distribution rate for new customers applying for CPGs in 2017.

Customers, businesses, and utilities need fairness, transparency, and stability. These simple clarifications of the rule are critically necessary as utilities are interpreting this provision differently in the recent net metering tariff filings.

REV notes that utility's purchase long term power agreements for 25 years or more while net metering customers are shorted value. It is essential that in 2017, all electric customers understand, and are able to make reasonable assumptions about a net-metering project's projected bill credits (i.e., revenue and, thus, ability to make debt service) at the time of commissioning irrespective of the project's size. REV notes that the warrantee for solar systems is typically a minimum of 25 to 30 years.

Other Issues

A. **Decrease risk with reasonable allowances for maintaining siting adjusters**.

REV requests that the Board consider allowing a grace period for situations beyond a project's control whereby the preferred site status of the project is compromised. For example, the "preferred site" definition option (9) on page 10 requires a customer to offtake for at least 10 years at least 50% of the renewable energy generated on site from a project. As written, if the customer goes out of business, moves locations, or experiences natural disaster or other unforeseeable circumstance a project could automatically lose its positive siting adjustor. The uncertainty in such a situation will create significant difficulties in obtaining project building owner approval and financing. Uncertainty creates a chilling effect and discourages project development due to increased risk.

Suggested fix: Allow the CPG holder at least a year for transfer to another customer on site or within close proximity before permanently removing the project's positive siting adjustor.

B. Re-establish net metering for projects sized greater than 150 kW and up to 500 kW as authorized in Act 99.

REV requests that the Board reinstate Category V to authorize 500 kW projects not on "preferred sites". REV does not object to reasonably lower rates for these projects. Allowing the projects at significantly lower rates than the current net metering program will address any cost concerns and notably reduce the number of projects proposed. Further, there is no electrical or legal rationale for eliminating projects 150kW to 500kW not sited at the customer's load when it is entirely possible that such a system could be installed very near electric demand of other nearby customers, and thus still provide significant grid efficiency and cost savings benefits, among other benefits.

The Board relatively recently approved much larger utility solar projects, IRPs, standard offer, and tariffs at rates between 11 and 14.5 cents per kWh, which by their very nature are different projects with different cost and benefit structures.[4] Potential net metering customers should be allowed the same opportunity with fair credit for production, consistent with Vermont law. No language in Act 99, nor any of the policy goals in the Act, authorizes or requires the Board to eliminate an entire category of net-metering systems by defining them out of the program through locational requirements as proposed in the final rule.

REV notes that the negative siting adjustors, increased permitting costs and burdens, and implementation of Act 174 with RPC and town energy planning will significantly drive project location to preferred sites. That, along with significantly lower rates, will cut the number of 500 kW projects proposed in the future.

[4] See Docket No 8684, GMP Response to Solar Producers First Set of Discovery (solar PPAs at 14.26 cents); *GMPSolar-Panton, LLC,* Docket 8637, 11/3/15 pf. of D. Smith at 4-6 (a 4.90 MW project with a 25 year levelized PPA at 12.2 cents kWh); *GMPSolar-Williston, LLC,* Docket No. 8562, Order of 3/4/16 and 7/15/15 pf. of D. Smith at 4-5, 17 (proposing a 25-year levelized contract for a 4.69 MW solar project at a 12.1 cent levelized rate); *GMPSolar-Richmond, LLC,* Docket No. 8564, Order of 3/23/16 and 7/20/15 pf. of K. Shields at 2 (proposing 25-year levelized PPA for a 2.0 MW solar project at 12.9 cents kWh); *GMPSolar-Hartford, LLC,* Docket No. 8580, 8/17/15 pf. of K. Shields at 2 (proposing 25-year levelized PPA for a 4.99 MW solar project at 12.8 cents kWh); *GMPSolar-Williamstown, LLC,* Docket No. 8683, 1/6/16 pf. of K. Shields at 3 (proposing 25-year levelized PPA for a 4.99 MW solar project at 12.3 cents kWh).

Vermont faces a growing gap to achieve statutory and regional greenhouse gas reduction commitments. Slowing the pace of local renewable energy generation permitted through net metering hinders meeting our energy independence and climate goals. The 2016 ISO-NE Energy Outlook states "about 80% of new energy capacity built in the New England region since 1997 is natural gas". Further looking ahead, ISO-NE projections show regional renewable energy generation decreasing in 2024 overall to 5% of the energy mix, with natural gas increasing to 57% and oil at 16%. ISO-NE's Final 2016 Photovoltaic Forecast issued on April 15, 2016 adjusted Vermont's 2017 solar forecast downward from 30 MW to 23.8 MW, with subsequent years even lower. This is going in the wrong direction.

Unfortunately, renewable energy development and deployment is not something that can be simply turned off and on like a faucet. By hindering this vibrant industry in Vermont now, the new rules will force businesses to close or move out of state, and make it significantly harder for Vermont to bring back development when the impacts of this new rule are realized and the state is falling behind in achieving its renewable energy and regional greenhouse gas reduction goals.

Economic Concerns

The complete economic impact of the final proposed rule should be fully considered by the Board and reflected in regulatory filings. With 80% of net metering project capacity that was previously developed in Vermont no longer permitted (as the draft rule prohibits projects over 150 kW not located on "preferred sites" and makes community solar financially non-viable) the consequential significant negative economic impacts should be noted. Vermont's net metered, renewable energy economy has brought tens of millions in outside investment to our state – and these drastic changes in the net metering rule are expected to result in the loss of millions of dollars of in-state investment, cratering our Vermont-grown renewable energy industry, sending jobs and savings elsewhere. The economic impact is not just on solar installers, but will ripple through the supply chain – including local engineers, landscaping, construction, and electrical supply businesses. The Board's economic impact analysis must consider the negative impacts on Vermont's more than 2,000 workers directly reliant upon these projects for employment, and the associated supply chain businesses, state and local tax revenues, and community economies.

REV requests that the Board provide more detailed explanation of the calculations and justification of the economic impact statement filed with the proposed final rule.

REV calculates the cumulative cost of the current solar adder on 156 MW of net metered projects at approximately $7.6 million statewide (156MW * 1,000 (conversion to kW) * 8760 hours/year (kw per year) *14% NCF (est. average capacity factor) * $0.04 solar adder). Utilities cannot incur a cost for purchasing electricity that they do not have to pay to provide or generate. Utility scale Standard Offer projects which may be larger than 2 MW in size are not a comparative benchmark to small, distributed net metered generation. It is also important to only consider the cost per kWh of projects actually constructed and commissioned rather than incorporate low bids which may never reach construction due to financial infeasibility. Net metering has a marginally nominal impact on rates. Successful energy efficiency measures and lower commercial electricity sales impose greater decreases in electricity sales and increases to rate pressure than net-metering.

Net metered renewable energy projects reduce utility capacity costs, as behind the meter projects are treated as offsetting load by ISO-NE. Utilities are not charged for the full installed capacity requirement for the net metered interconnected load. Net metering has also reduced peak costs. Utility rate case testimony summarily reflects that net metering rate impacts are largely offset by these benefits.[5] Independent analysis of 2017 utility rate filings found that increased capital costs, not net metering created rate pressure.[6] Local, community scale distributed renewable generation (Vermont's net metered projects!) provide price stability as the region continues to be more reliant on natural gas. The economic analysis should reflect and account for these savings and benefits to all ratepayers.

Renewable Energy Vermont appreciates the Public Service Board's continued deliberations and efforts to develop a final net-metering rule that encourages progress towards achieving the State's renewable energy goals and climate pollution reduction commitments. We appreciate the Board's efforts to accommodate the many voices heard throughout the rulemaking process. Thank you for your consideration of the concerns outlined above. Please do not hesitate to contact us if you have any questions or need additional information.

Respectfully submitted,

Olivia Campbell Andersen
Executive Director
Renewable Energy Vermont

Renewable Energy Vermont represents businesses, non-profits, utilities, and individuals committed to reducing our reliance on dirty fossil fuels by increasing clean renewable energy and energy efficiency in Vermont. Vermont's clean energy economy supports at least 17,715 sustainable jobs at 2,519 businesses, representing approximately 6% of Vermont's workforce. Together, we will achieve 90% total renewable energy (electric, thermal, transportation) by 2050.

[5] In Re: Tariff Filing 8618 2017 GMP Base Rate Filing, Tr. 9/13/16 (PSB Workshop) at 23-24, 26-28 (Rob Bingel, GMP, Kevin Fink, PSB Hearing Officer, Ann Bishop, GMP Hearing Officer).
[6] Larkin & Associates, PLLC. Report on Analysis of Rate Year Ending September 30, 2017, Green Mountain Power Corporation Cost of Service Request and Cost of Capital Request Under Alternative Regulation.