VERMONT PUBLIC POWER SUPPLY AUTHORITY

PO Box 126 5195 Waterbury-Stowe Road • Waterbury Ctr., VT 05677
(802) 244-7678 Fax (802) 244-6889 www.vppsa.com

BY ELECTRONIC MAIL

July 10, 2015

Susan M. Hudson, Clerk
Vermont Public Service Board
112 State Street, 4th floor
Montpelier, VT 05620-2701

Re: Revisions to Vermont's Net Metering Rule pursuant to Act 99

Dear Mrs. Hudson:

Vermont Public Power Supply Authority ("VPPSA") offers the following reply comments on the revisions to Vermont's Net Metering Rule. VPPSA has reviewed the comments submitted by other parties, and participated in the June 18th workshop discussion. In written comments and during the workshop, several parties advocated for a valuation method for setting the net metering rate. VPPSA maintains that a net metering program where kWh generation is used to offset the energy rate, while fixed charges remain in place, is fair, clear, and consistent with the fundamental concept of net metering.

Value-based Rates

The Public Service Department has proposed a value-based net metering structure. VPPSA remains concerned about the inherent complexities of calculating a value-based net metering rate because of the uncertainty around a number of the variables included in such a calculation. Forecasting the value of energy and capacity that will be provided by net metered installations is difficult due to rapid changes occurring in the markets.

In the energy markets, we have seen energy prices drop drastically in the summer months, when the bulk of solar generation occurs. Winter energy prices, which have low production coincidence to solar generation, have increased substantially. As an example, the average Vermont energy price for June, 2015 was less than $0.02/kWh while the February price was around $0.12. At the same time we have seen the average on-peak forward price quoted by the CME Group, a possible

source for valuation discussed in filed comments, for August 2015 drop 50% from approximately $0.06/kWh to $0.03/kWh in one year's time.

The Forward Capacity Market (FCM) has seen market prices triple in the past four years, with increased uncertainty in where the future pricing may go. Because net metered projects are not direct participants in the FCM, they will only receive a capacity benefit if they are operating during one peak hour during the year; if a project is not operating during that hour, the benefit is lost for an entire year. The above energy and capacity price forecast examples illustrate significant short and long-term future price uncertainty, and the difficulty of establishing an appropriate "value" of any particular technology.

Projecting avoided transmission and distribution benefits is further complicated by the shift in Vermont's peak to later in the day; this trend will continue as overall solar penetration increases, regardless of the level of net metering deployment. At the transmission level, VPPSA is not aware of reliable, long-term forecasts for Regional Network Service ("RNS") rates; the short-term RNS projections provided by ISO-NE have consistently forecast higher rates than have actually occurred. If these rates are extrapolated out over a 20-year term the impact of over-projection will be magnified.

At the distribution level, the impact that net metering projects have on the distribution grid will vary not just by utility but by circuit within each utility's territory. While an average for avoided distribution costs could theoretically be calculated for each utility, those averages would likely not reflect the actual value for most projects. Moreover, the impacts on the distribution system are likely to vary with installation size - depending on location, a 500kW system that is not close to load could even increase distribution system costs. While this situation may be mitigated by the concurrent Rule 5.500 proceeding, that proceeding is far from concluded and its outcome is uncertain. In short, calculating a rate that attempts to capture the value per kWh produced will be contentious and time-consuming and may lead to a false sense of accuracy.

Risk

Under the valuation approach, the *risk* of establishing an inaccurate value-based rate is borne by the state's ratepayers, who will bear the costs of paying the net metering rate, regardless of whether the projected value materializes. It would be more appropriate for the individuals making the decision to net meter to bear the risk associated with the project's value. In addition, a value-based approach is likely to increase year-to-year uncertainty for the solar industry, which could limit development substantially. On the other hand, the certainty afforded by a retail rate-based approach (avoided energy charges by a net-metered system) helps to assure that boom/bust cycles of development are avoided because retail rates are less volatile then the proposed value based approach.

Vermont's Energy Goals

Much of the discussion around revisions to the Net Metering rule has centered on meeting Vermont's energy goals. With the passage of Act 56, Vermont utilities are now required to purchase set quantities of electricity from small-scale renewable sources. Most of the state's utilities are well positioned to meet the Renewable Energy Standard without an acceleration of net metering development. While net metering projects have, and will continue to, bring benefits to Vermont, it is also important to note that these same benefits will be acquired through other means and oftentimes at significantly lower costs. When small-scale solar projects can be developed for $.10-.12/kWh or less, paying $.19/kWh runs counter to the core tenets of least cost planning.

The Standard Offer program offers an informative example of how ratepayers have been able to benefit from renewable distributed generation projects at much lower costs than initially projected. Prior to 2013, projects that were awarded Standard Offer contracts with the state were paid at technology-specific avoided cost rates that were calculated each year and attempted to capture the cost of developing renewable projects smaller than 2.2 MW. When the competitive bidding mechanism was implemented in 2013 the cost to ratepayers of solar Standard Offer projects dropped significantly. The higher rates afforded to developers at the start of the standard offer program kick-started the market for small utility scale development. Now established, the standard offer program continues to thrive with much lower rates. The net metering program can and should follow a similar path; it is time to drop the cost of the net metering program significantly, while retaining the benefits of sustainable and secure net metering deployment.

The provisions of 30 V.S.A §8010(c)(1) [Act 99] require that that the Public Service Board consider technology costs when redesigning the net metering program. Many of the comments submitted to the Board on June 12th recommending a valuation approach did not appear to consider cost, as it was not a recommended input into the calculation. The modification of the current net-metering program to one that allows ratepayers to choose how they receive their energy (either through the utility or through their own generation), and apply any of their own generation as an offset to kWh charges, as VPPSA proposes, does consider the cost of the technology. If current development costs increase to a point where they are not adequately offset by the retail rate, net-metering will slow and more cost-effective renewable energy will be deployed in order to meet VT's new Renewable Energy Standard. If costs remain where they are currently, or fall to the levels to which they are forecasted to fall, net-metering deployment will continue along at its rapid pace and help the state meet its goals without much additional development to meet the RES.

A net metering program under which net metering customers purchase and sell electricity at their retail rate provides fairness, clarity and predictability to ratepayers, utilities, and developers while appropriately balancing the goals laid out in 30 V.S.A §8010(c)(1).

Thank you for your consideration of these comments.

Sincerely,

Melissa Bailey
Vermont Public Power Supply Authority