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January 13, 2016

Judith Whitney, Acting Clerk
Vermont Public Service Board
112 State Street
Montpelier, VT 05620-2701

Re: Department of Public Service Comments on Draft Rule 5.100 (Net Metering Rule)

Dear Mrs. Whitney:

The Vermont Department of Public Service (Department) files these comments on the draft Rule 5.100 proposed by the Vermont Public Service Board (Board) on December 8, 2015 (Draft Rule). The Department thanks the Board for this opportunity to comment on the Draft Rule and appreciates the significant effort by the Board and Board staff that went into its development.

The Department continues to believe that a value-based net metering rate structure along the lines proposed this summer provides a strong platform to achieve both renewable energy and ratepayer protection goals. Such a value-based approach ensures a fair allocation of costs and benefits among net metering and non-net metering ratepayers, allows for periodic updates to ensure that costs and benefits remain aligned, and provides a useful tool to achieve desired policy outcomes. Nevertheless, as the Board likely recognized, such an approach involves a measure of complexity that imposes its own challenges. The Department therefore understands the Board's decision to maintain a structure in which the net metering rate remains tied to residential retail rate, as that approach is generally more straightforward—an important aspect of any regulatory program.

Summary

The Department's proposed revisions work from the Board's Draft Rule and make targeted changes to accomplish two basic things: (1) establish a net metering rule that achieves a reasonable pace and balance of net metering deployment that is consistent with State energy policy, and (2) provide incentives for net metering facilities that are well sited.

The annual deployment of net metering resources should generally be geared to meeting some reasonable portion of the Tier 2 Renewable Energy Credits (REC) under the Renewable Energy Standard (RES) program, as well as to achieve the goals set forth in the current and future versions of the Comprehensive Energy Plan. Over the past few years, the pace of net metering deployment has accelerated significantly. This is good news, as it shows that the current structure of the net metering program has worked to achieve increased deployment of renewable resources (primarily solar). Much of this accelerated pace of deployment is due to increased interest in larger net metering facilities around the order of 500kW in size, none of which have yet elected to transfer RECs to the utility. Given the current structure of the net metering program, this is an understandable result. Larger 500kW projects can achieve economies of scale not possible for smaller projects, while receiving the same compensation.

The Department does not propose changes to the size limitations for net metering systems—well-sited 500kW facilities still should play an important role in achieving State energy goals. Instead, the Department suggests putting targeted financial incentives in place to encourage the development of smaller, well-sited net metering systems, thereby bringing a measure of balance back to the overall net metering program. Thus, the Department's proposed revisions to the Draft Rule start from the premise that larger net metering systems, those systems not particularly well-sited, and those that elect to retain and sell their RECs should not enjoy the same compensation as smaller, well-sited projects, and those that transfer RECs to the electric company in furtherance of State energy goals.

The Department seeks to achieve this pace and balance of net metering deployment through the use of REC and Siting Adjustors, which will be reset every couple years to ensure that they are achieving the desired outcomes. These financial signals can perform a valuable and reasonably predicable pacing function that is preferable to the hard caps currently in place. As different electric companies have hit caps embedded in statute, the result has been stop-and-start development in different service territories. More recently, GMP has reached its statutory cap (an issued currently being addressed in Docket No. 8652), which given GMP's size has resulted in significant confusion among numerous interested stakeholders. The Department's hope is that the establishment of the REC and Siting Adjustors will drive the desired siting objectives, while at the same time providing a meaningful incentive to net metering customers to transfer RECs to their electric company for the purpose of achieving State energy goals.

Attached to these comments as Attachment A is proposed rule language that would effectuate the revisions proposed by the Department. The Department provides this draft language to make it easier for the Board and interested stakeholders to see the details of the Department's proposed revisions. Given that the changes were substantial in places, the Department has simply provided clean draft, without redline. While the Department believes that the draft rule language in Attachment A accomplishes the goals articulated herein, the Department welcomes any and all changes designed to clarify the proposed rule as well as any comments on the substance. The Department has not proposed draft language for the procedural aspects of the Rule and instead provides comments in narrative form here. Also attached to these comments as Attachment B is a chart showing the five different categories of net metering projects proposed by the Department, and the resulting 20-year levelized cost to ratepayers under the current rule, the Board's Draft Rule, and the Department's proposal.

Department Comments

The Board's Draft Rule establishes a net metering program with the following financial features. Electric energy generated from the net metering system is netted against electric energy used by the customer, and any resulting excess generation is valued at the electric company's residential rate plus a $.03/kWh REC adder (where RECs are transferred to the electric company) and a $.02/kWh Siting adder (where the net metering system meets certain siting criteria). Electric companies are also given the discretion to levy traditional system-specific interconnection and metering charges, as well as to levy a more novel charge to account for fixed costs attributable to net metering.

While this structure provides a sensible framework for the net metering program, the Department has the following conceptual concerns about certain aspects of the Draft Rule:

- Basing the REC and Siting incentives on excess-generation-only diminishes the nominal amount of the incentives to the point where they may not achieve the desired outcomes;
- Locking the REC and Siting incentives in place with no mechanism to revisit those values other than rulemaking could make it difficult to adjust to changing circumstances;
- The Siting incentive could benefit from greater nuance to achieve more targeted siting results;
- It is unclear what the reason is for moving away from the current practice of valuing net metering generation at the blended residential rate for electric companies with inclining block rate structures;
- There is little definition and no cap on the ability of electric companies to impose new or adjusted charges to account for fixed costs.

From a purely financial perspective, when reviewing the levelized costs of the Draft Rule against the status quo, it appears that the Board's proposal would result in lower costs to ratepayers for all types of projects. However, as Attachment B shows, the Draft Rule results in a very small amount of cost differentiation for different types of projects. A large, poorly sited project that retains its RECs and sells them out of state would receive just slightly less than a small, well-sited (e.g., roof-mounted) system that transfers its RECs to the electric company in furtherance of State goals. Given the economies of scale for larger projects, the Department believes that the unintended result of the Draft Rule could be to hamper the development of smaller, well-sited projects, while having little effect on the larger projects.

Accordingly, the Department has developed a proposal that addresses the concerns set forth above. The Department's proposal has the initial financial effect of creating greater separation in the costs associated with projects with preferable policy outcomes and those without. As illustrated in Attachment B, the Department's proposal would provide somewhat greater compensation to small, well-sited projects that transfer RECs to their electric company, while providing much less to those without such attributes. The major features of the Department's proposal are described here.

1. Base the value of electricity produced by the net metering system on blended residential retail rate for those utilities with inclining block rate schedules

Rather than value the electricity generated by a net metering facility at the residential rate, the Board should retain the use of the blended residential retail rate set forth in the current statute. This is an important outcome for municipal and cooperative electric companies that employ inclining block rate structures. Under these structures, the first kWh used in a month are priced at a low rate, with the balance being priced at a higher rate. The purpose of inclining block rates, generally, is to provide an incentive for energy conservation and to give low energy users a lower average rate. However, when a customer that takes service per an inclining block rate installs a net metering facility, the output of the system confounds the goals that undergird the structure.

Moreover, to the extent a net metering facility reduces the marginal usage of a customer (at the higher inclining block rate), it artificially increases the value of the net metering generation to that marginal (rather than average) rate without providing commensurate value back to the utility and its remaining customers. Accordingly, the Draft Rule should be amended to use the blended retail rate (made up of a weighted average of the lower and higher blocks) for calculating the net metering production credits.

2. Apply any adjustments to all kWh generated by a net metering system, rather than to only excess generation

In section 5.105 of the Draft Rule, the Board applies the $.02/kWh siting incentive and a $.03/kWh REC incentive only to excess generation within the billing period, rather than to all electricity generated by the net metering facility. The Department disagrees with this formulation. A REC is created by any kWh generated from a qualifying resource and should be applied or not applied to the kWh generated. It does not seem to make sense to credit a net metering facility for RECs created only on kWh that exceed a net metering customer's monthly usage, as such usage does not affect the fact that a REC is created. Moreover, application of the incentive to only excess generation reduces the value of the incentive to the point where it may not achieve its desired policy outcome. For these reasons, an adjustment for the disposition of RECs (as described more fully below) should be applied on an even-handed basis on a kWh-generated basis. The same logic would apply to the siting incentives.

3. Create five categories of net metering systems based on desirable siting criteria and establish a financial incentive commensurate with the preferred outcomes

The Department is encouraged that the Draft Rule establishes a financial incentive to encourage net metering deployment in preferred sites, and generally supports the list of preferred siting options set forth in the Draft Rule, while deferring to the Agency of Natural Resources on additions or revisions based on environmental criteria. However, the Department would go further and provide greater nuance to the categories of net metering systems so as to provide additional incentives for appropriate siting. The Department proposes the following categories (and associated initial Siting Adjustors):

- **Category I** ($.02/kWh) – net metering systems with a capacity of 15 kW or less;
- **Category II** ($.01/kWh) – net metering systems with a capacity of more than 15 kW and less than 150 kW that meet any of the following criteria:
    - On a new or existing structure;
    - On a brownfield;
    - On a sanitary landfill;
    - Over a parking lot;
    - In the disturbed portion of a gravel pit;
    - Has the support of all Adjoining Landowners;
    - Has an on-site primary off-taker; or
    - In an area a town has specifically designated for the development of resources meeting the characteristics of the net metering facility.
- **Category III** ($.00/kWh) – net metering systems with a capacity of 150 kW and up to 500 kW that meet the criteria specified above for Category II systems
- **Category IV** ($-.02/kWh) – net metering systems with a capacity of more than 15 kW and less than 150 kW that do not meet the criteria specified above for Category II systems;
- **Category V** ($-.03/kWh) – net metering systems with a capacity of 150 kW and up to 500 kW that do not meet the criteria specified above for Category II systems.

Generally speaking, the categories set forth above are designed to encourage development outside of "green fields" and to be responsive to siting concerns that have been raised by members of the public in recent years and which are currently being reviewed by the Solar Siting Task Force.

One issue remains outstanding in the Department's proposal, namely, the level of showing necessary to demonstrate that a Net Metering System has the support of all Adjoining Landowners impacted by the project, such that it would qualify as a Category II or III project. The Department's goal is to create an incentive for developers to work together with all project neighbors toward a mutually beneficial outcome, without imposing unnecessary procedural hurdles. With those goals in mind, the Department welcomes suggestions from others, as well as the Board, on this point.

4. Add greater nuance to REC Adjustors and Siting Adjustors to achieve desired policy outcomes

As indicated above, the Department believes that greater financial incentives for REC transfer and siting are appropriate to drive desired policy outcomes. The Department is concerned that the incentives set forth in the current Draft Rule are insufficient to drive desired outcomes. Moreover, while a simple and intuitive fix might be to simply apply the $.02/kWh Siting incentive and $.03/kWh REC incentive to all generation as an adder above the residential rate or blended residential rate, the Department believes that this is an unworkable because it would likely result in a significant over-valuation of net metering generation, especially as residential rates increase over time.

Accordingly, the optimal formulation to achieve desired REC and siting outcomes, while at the same time retaining a program that is based off of the retail rate (as opposed to a value-of proposal like the one initially advanced by the Department) takes the form of Adjustors, which can be positive or negative numbers off the blended residential rate, and can be adjusted at regular intervals to ensure they are producing the right pace and type of net metering deployment. This formulation allows for a sufficient spread in available incentives to achieve desired outcomes and keeps overall costs reasonable. Initially, the Department recommends that REC Adjustors be set at $.03/kWh of total generation for net metering customers that transfer RECs to the electric company to help meet State energy goals and $.00/kWh of total generation for net metering customers that retain their RECs. For the Siting Adjustor, the Department recommends the amounts set forth in the section above. As can be seen in Attachment B, the Department's proposal creates a 20-year levelized cost differential of more than $.06/kWh between the most desired (smaller, well-sited) projects and the least desired (larger, not on preferred sites) projects. This is compared to a 20-year levelized cost differential of less than $.01/kWh in the Draft Rule.

In order to provide a measure of certainty to net metering customers, the Board should establish the applicable REC and Siting Adjustor in the net metering system's CPG. The Department proposes that the REC Adjustor last for a term of 20 years and the Siting Adjustor last for a term of 10 years. In this way, the net metering customer is assured some certainty, even while the applicable Blended Residential Rate and any applicable Equalization Charge may change over the years.

This formulation also provides a more nuanced tool to achieve desired policy outcomes and can serve a meaningful pacing function, thereby obviating the need for a cap, all within the construct of a net metering program based on the residential retail rate. Through Biennial Update proceedings, the Board can change these Adjustors for new net metering systems without having to initiate a full rulemaking process, as would be required under the Draft Rule.

5. Provide greater definition to, and create a cap on, the imposition by an electric company of a Equalization Charge

Section 5.107(A)(6) of the Draft Rule allows electric companies to impose what is commonly thought of as a grid service fee to capture the fixed costs necessary to support infrastructure and administrative functions associated with net metering. The Department is concerned with the level of uncertainty that this provision could inject into the net metering program as it imposes no limit on the amount of the fee and no framework for establishing and adjusting the fee. At the same time, the Department recognizes that such a fee can provide a useful tool to an electric company to mitigate potential cost shifts among net metering and non-net metering customers, as well as to recover fixed costs associated with the program. With those considerations in mind, the Department proposes the following.

The Draft Rule should be amended to give small municipal utilities and cooperatives an opportunity to propose an Equalization Charge as a tariff revisions pursuant to 30 V.S.A. § 225. Any Equalization Charge must be revenue neutral to the electric company and designed to do one of two things: (1) capture the fixed costs necessary to support the electric company's infrastructure and the administrative costs associated with net metering, or (2) reduce the extent to which net costs associated with a net metering program are disproportionately shifted onto non-net metering customers. Additionally, it would be structured not as a fixed monthly fee, but instead as a component of the per-kWh rate used to measure Energy Produced from the Net Metering System.

Importantly, there should be a cap on the Equalization Charge not to exceed the following: the electric company's Blended Residential Rate plus $.01/kWh minus the weighted average of all Blended Residential Rates of electric companies within the State. Functionally, the Equalization Charge will do two things: (1) it will serve to equalize costs/benefits associated within the electric company; and (2) it will equalize costs across electric companies by establishing a disincentive for excessive construction in an electric company service territory where rates may be higher and therefore more attractive to excessive development.

6. *Create a periodic proceeding to review the pace of net metering deployment and update relevant values such as the REC Adjustor and Siting Adjustor and the criteria applicable to different Categories.*

One of the Department's primary concerns with the Draft Rule is that it does not contain an express mechanism to "check-in" on the net metering program to ensure that the program is working as intended, other than the potential inclusion of a hard cap. This injects a significant amount of uncertainty into the program proposed in the Draft Rule. Experience under the existing net metering program shows that hard caps are unwieldy policy mechanisms and prone to stop-start problems, and in the recent case of GMP (being addressed in Docket No. 8652), a rush of applications in advance of an electric company reaching its cap. Moreover, to the extent the incentives for RECs and Siting that are hard-coded into the Draft Rule would require changing, the Board would have to initiate a cumbersome rulemaking process. This too is a concerning result as there is no predictability as to when such a rulemaking would be initiated.

In order to provide greater certainty to the net metering program, the Department recommends the establishment of Biennial Update proceedings that are designed to review and update the following things:

- REC Adjustor values;
- Siting Adjustor values;
- The weighted average statewide Blended Residential Rate;
- Criteria applicable to different Categories;
- Standard Conditions to be incorporated in Net Metering System CPGs.

The express purpose of the Biennial Updates would be to review the pace of net metering deployment, the costs and benefits associated with the net metering program, and the impact of the net metering program on State energy goals. Such a proceeding would be conducted on a notice-and-comment basis and would allow the Board to rely on data from the electric companies, recommendations from State agencies, and comments from any interested stakeholder. Importantly, the framework suggested in the Department's proposal would provide a reliable process that all interested persons could count on ensure that the program remains workable and is producing the desired outcomes, i.e., a reasonable and balanced pace of net metering deployment, directed primarily to preferred types of locations.

7. *Ensure that the net metering program is available only to newly developed resources, not to existing resources that are already in operation.*

The purpose of the net metering program is to advance the State's energy goals by creating a platform for the deployment of distributed renewable generation. It should not be a mechanism whereby small facilities that have been in operation for years can avail themselves of a higher return for some or all of their output. Such facilities can and should sell their power on the market, through bilateral agreements, or pursuant to other State programs such as Rule 4.100 or the Standard Offer Program. The Department believes this principle should be clearly articulated in the net metering rule and therefore proposes language in section 5.109(A)(1) to clearly state that any Plant first commissioned prior to January 1, 2017 is ineligible for net metering except as permitted by the rule's grandfathering provisions.

8. *Allow for streamlined permitting processes to the extent feasible.*

Given the proposed siting adjustor provisions, the Department would like to consider how to best align the Categories I-V of net metering systems, or the definitions of types of projects used to determine that categorization, with the registration form, application form, and other more extensive processes laid out by the Board in its Draft Rule. Our general objective would be to use the registration form process for as many types of projects as can be appropriately permitted using that process; to use the application form process for as many types of projects as can be appropriately permitted using that process; and to provide a well-described and more extensive process for all remaining projects. In particular, we are interested in the possibility that, if the application form process is made somewhat more robust (as we understand the Agency of Natural Resources is proposing), that it may be possible to use an application form process for somewhat larger projects on some kinds of sites (e.g. some portion of category III projects). For example, it might be that a 500 kW system on a landfill, parking lot, or brownfield site can be effectively permitted using the application form process (with appropriate addenda), rather than the more extensive process that it would otherwise have required. Regardless of how the processes are aligned with project types in the initial rule, the first Biennial Update will provide an opportunity to revisit the routing of different types and sizes of projects into the application form or the more extensive processes.

9. *Clarify some screening and other aesthetic requirements, and remove the "10 mile" and lot coverage provisions.*

Section 5.109 of the Draft Rule identifies various aesthetic considerations and requirements for net metering systems. In the interest of further clarifying the obligation to meet the aesthetics criterion contained in 30 V.S.A. § 248(b)(5), the Department suggests that the Draft Rule make clear that the requirement to propose screening for projects larger than 99 kW does not remove the obligation on smaller projects to provide any appropriate aesthetic mitigation that might be required under the *Quechee* test. The rule should also clarify that projects constructed over a parking lot should not be obligated under this section (but may still find it appropriate to propose appropriate mitigation).

The Department recommends removing the requirements relating to a 10 mile radius for group membership and for lot coverage; we believe that the siting adjustor as proposed would be sufficient to address concerns that might otherwise have been addressed through the inclusion of these provisions.

10. *Provide greater clarity regarding financial assurance in decommissioning.*

The proposed rule requires an applicant for a plant greater than 150 kW to demonstrate "sufficient financial resources to decommission the net metering system." This is ambiguous and may lead to litigation. In particular, how would "sufficient" resources be determined and demonstrated? While the Department does not have a proposed answer to this question at this time, we do believe that additional clarity will benefit the final rule and we look forward to others' input and further opportunities to comment.

11. *Set timelines for completeness determinations.*

The Department is anxiously awaiting the day when electronic filing is a reality for Board proceedings. We very much appreciate the structure, woven throughout the Draft Rule, whereby the Board would make a clear completeness determination, and that determination would trigger various obligations and timelines. This structure could be further strengthened by establishing a timeline whereby the Clerk of the Board would make the completeness determination. It is our understanding that parties entitled to receive service of the application, such as state agencies, would receive notice of the application immediately upon that completeness determination through the electronic system; this is much appreciated. Notice to others entitled to copies of the complete application are envisioned being distributed by certified mail on the day the determination is made; it would be appropriate to allow for one or two days to mail these documents using certified mail, especially if there is not a time certain for applicants to receive a completeness determination.

The Department reiterates our appreciation to the Board for the opportunity to comment on this Draft Rule. We stand ready to work with the Board and any other interested stakeholder to discuss the particulars of these comments, answer questions, or in any other way assist in the development of a proposed rule.

Sincerely,

/s/	/s/
Asa Hopkins Director of Energy Policy and Planning	Timothy M. Duggan Special Counsel