P. O. Box 512
Montpelier, Vermont 05601
June 24, 2022

Holly R. Anderson, Clerk
Public Utilities Commission
112 State Street, 4th Floor, 2022.
Montpelier, Vermont 05620-2701

Subject: Proposed changes to PUC rule 5.100, pertaining to construction and operation of net-metering systems
Case number 19-0855-RULE
Responses to comments submitted May 27, 2022

Dear Ms. Anderson:

Thank you for the opportunity to comment on the proposed changes to rule 5.100. The Public Utilities Commission has requested responses to the comments that were submitted on May 27. Those comments are on the draft rule accompanying the Public Utility Commission's order of April 29, 2022.

I own a Category I net-metering system (3 kW, roof-mounted, photovoltaic, with battery back-up). I support public access and participation in decision making. I believe that town plans are governing documents and should not be amended on an *ad hoc* basis.

These responses mainly consider the effects of the proposed rule on Category I net-metering systems. These responses do cover some additional areas.

My apologies for having missed the submissions for comments on the draft.

<u>5.103 definition of "Group Net Metering System</u>

Green Mountain Power proposes removing the last two sentences. These sentences are left-overs from the incremental development of the legislation on group net-metering systems. The sentences should not be removed because the definition in the rule should match the definition in the statute. The approach should be to have the legislature remove the two sentences from the statue (30 V. S. A. §8010 (10). Then the sentences may be removed from the rule.

Request: Leave the two sentences in the definition in this rule.

<u>5.103 definition of "Net Metering"</u>

Green Mountain Power proposes removing (2) from the definition in the rule. That would make the definition in the rule different from the definition in statute.

The definition in 30 V. S. A. §8002 (15) is:

> “Net-Metering” means measuring the difference between the electricity supplied to a customer and the electricity fed back by the customer's net-metering system~~(s)~~ during the customer’s billing period:
> (1) using a single, non-demand meter or such other meter that would otherwise be applicable to the customer's usage but for the use of net metering; or

(2) if the system serves more than one customer, using multiple meters. The calculation shall be made by converting all meters to a non-demand, non-time-of-day meter, and equalizing them to the tariffed kWh rate.

Green Mountain Power also pointed out that 5.126 and 5.127 do not follow the requirements of (2).

Requests:
- Retain (2) in the rule to retain the statutory definition.
- If 5.126 and 5.127 indeed do not follow the requirements of statute, then amend 5.126 and 5.127 to bring them into compliance with the statute.

<u>5.103 definition of "Net-Metering System"</u>
Mr. Van Winkle suggests removing the prohibition on using net-metering systems to primarily supply electricity to electric vehicle supply equipment. I understand his point. However the restriction is in the statute (30 V. S. A. §8002 (13)).

The PUC added that restriction into the present draft. However, the PUC did not completely bring the definition in the rule into agreement with that in the statute.

> "Net-Metering System" means a plant for generation of electricity that:
> (1) is of no more than 500 kW capacity;
> (2) operates in parallel with facilities of the electric distribution system;
> (3) is intended primarily to offset the customer's own electricity requirements; and does not primarily supply electricity to electric vehicle supply equipment, as defined in section 201 of this title, for the resale of electricity to the public by the kWh or for other retail sales to the public, including those based in whole or in part on a flat fee per charging session or a time-based fee for occupying a parking space while using electric vehicle supply equipment; and
> (4) either (i) employs a renewable energy source; or (ii) is a qualified micro-combined heat and power system of 20 kW or ~~less~~ <u>fewer</u> that meets the definition of combined heat and power ~~facility~~ in subsection 8015(b)~~(2)~~ of Title 30 and uses any fuel source that meets air quality standards.

Request: Bring the definition in the rule into agreement with the statute by leaving the prohibition on primarily supplying electric vehicles and by making the highlighted changes.

<u>5.103 Definition of "Non-Bypassable Charge"</u>
Renewable Energy Vermont asks that non-bypassable charges apply only to the net. I support that.

Request: Amend the definition of "Non-Bypassable Charges". That relates to those charges based on kWh's. The amendment would limit the charge to the net kWh's instead of to the gross consumption of kWh's.

<u>5.103 definition of "Preferred Site" (2)</u>
Both Vermont Association of Planning and Development Agencies and Renewable Energy Vermont opposed the proposed amendment to the definition. They opposed it for different reasons.

I agree with REV that the word paved should be removed.

I disagree with VAPDA. I believe that the use of "an impervious or engineered pervious surface" is appropriate. I'll explain why.

I suggest that the definition be as follows.

> (2) A parking lot canopy over a parking lot constructed with an impervious or engineered pervious surface, provided that the location remains in use as a parking lot.

In some circles, a graveled surface is not considered to be paved; in others a graveled surface is considered to be paved. Adding the term "impervious surface" clarifies that a canopy built over a graveled surface is a preferred site. Limiting the pervious surfaces to "engineered impervious surfaces" eliminates the possibility of placing the canopy over a naturally pervious surface that might be used intermittently for parking before erection of the canopy..

> Vermont's stormwater program defines an impervious surface as "those manmade surfaces, including paved and unpaved roads, parking areas, roofs, driveways, and walkways, from which precipitation runs off rather than infiltrates." (10 V. S. A. §1264(b)(6))

> Montpelier's zoning ordinance defines an impervious surface as "a surface composed of a material that impedes or prevents the natural infiltration of water into the soil including, but not limited to, rooftops, streets, driveways, sidewalks, walkways, patios and similar hard-surfaced areas whether constructed of concrete, asphalt, stone, brick, gravel or compacted earth, unless they are specifically designed, constructed and maintained to be pervious." (Section 5101.I(1))

Request: Amend the definition by removing the word "paved".

5.103 definition of "Preferred Site" (7)

This definition received multiple comments. This is the definition that would allow municipal legislative bodies, municipal planning commissions, and regional planning commissions to determine that a site should receive preferred status, if it is consistent with the applicable town or municipal plan.

The original proposal (April 15, 2019) had been to remove the letter of support. The letter of support was allowed in the present draft, with a condition.

The Goulets requested that the Town Planning Commission notify adjoining landowners at the beginning of the planning process. "They point out that "adjoiners are not brought into the planning process until after the project is being planned and is being submitted to the PUC". I support this request as an important component of the public involvement process. I believe that potentially affected individuals need to have access to, and the ability to participate in, the decision-making process. This is best achieved by directly notifying potentially affected individuals. At a minimum, adjoining landowners should be directly notified. In order to provide reasonable opportunity, the letters should be on the agendas at two meetings of each body. At the first, the adjoiners will have the opportunity to gather information and to have questions answered. Then they would have time to consider what they learned before a second meeting at which they could present their ideas and a decision would be made by the body.

Request: If you choose to retain the letters of support, then modify the definition of preferred site (7). The modification would require that each legislative body and planning commission notify the adjoining landowners directly of the meetings at which the request for preferred site status will be considered. And would require that the subject be discussed at two meetings of each body.

<u>5.103 definition of "Substantial Forest Clearing"</u>
This definition and its application received many comments. Some of the comments asked to provide a better definition.

Succession, broadly, goes from bare ground, to grassland, to grass-scrub, to shrubs, to softwood, to hardwood. Of course, clear-cutting and fires can move to an earlier successional statge. And farming can lead to holding succession at one stage over a period of many years.

Requests:
 - Retain the restriction on substantial forest clearing in the overall definition of "Preferred Site".
 - Define which stages of succession are covered by the phrase "forest in any stage of succession".

<u>5.105 (C), CPG Deemed Issued, and (E), Interconnection</u>
The draft rule proposes adding 44 days to the time after which a CPG can be deemed approved. This is because the present draft proposes that the interconnection be approved under rule 5.500 before the registration request for a CPG is submitted. The present draft of rule 5.500 allows the electric company 14 days to determine if the application for an interconnection is complete and then 30 days to process the application through the Fast Track Screening process. That extends the allowed time for a CPG to 59 calendar days.

The present rule grants a CPG and interconnection approval in 11 business days (equal to 15 calendar days).

Multiple comments were made on this proposal. Green Mountain Power, the Department of Public Service, Renewable Energy Vermont, and All Earth Renewables support keeping the CPG and interconnection processes in parallel for smaller systems. The Department of Public Service suggests that there be a simplified, one-stop, combined process for Category I systems.   I agree with them.

Request:
 - Allow the interconnection and CPG to run in parallel for category I systems. This likely mean creating a separate section in rule 5.500 (interconnections) to cover Category I net-metering systems.

<u>5.106 (E)(9), 5.107, and 5.108</u>
Green Mountain Power proposes processing interconnections and CPG's in parallel and approving CPG's conditionally if it takes too long for the utility to approve an interconnection. Renewable Energy Vermont had suggested that back in 2021 and the PUC had not accepted that. Instead, the PUC now proposes to have interconnections approved before applying for a CPG. I had opposed REV's suggestion in my response letter of October 8, 2021.

Request: Do not accept GMP's proposal to issue CPG's conditionally.

5.107 (C) filing requirments (13 and 14)
This is a complaint. You made the annotation to sections 13 and 14 much more convoluted and harder to follow than necessary. I am referring to how you presented these changes in the annotated version. You could have done a simple annotation of 13 and then added 14. Instead yo chose to dissect 13 and stretch it into 14, keeping a word or phrase here, deleting a snippet there, through the end. This stretch took 29 lines, if I count correctly.

Request: In the future make it easier to follow the annotation.

5.109 Substantial Changes to Approved Net-Metering Systems and Amendment of CPG's.
Burlington Electric, Norwich Solar, and Renewable Energy Vermont each requested more specifics on the definition of "substantial change". This definition succeeded the previous definition of "Amendment".

It turns out that the specifics of the definition of "Substantial Change" do not seem to matter. That is because section 5.109 appears to require an amendment for all changes. "An amended CPG, necessitated by changes substantial or non-substantial, may be obtained in the following manner . . ."

Request: Please change the section to ". . . An amended CPG, necessitated by substantial changes ~~substantial or non-substantial~~, may be obtained . . . "

5.110 Transfer and Abandonment of CPGs
This provision proposes to end the transfer of CPG's when a net-metering system is sold with the property it is on. This response is part of my response on 5.127 (B)(1). It is also in response to comments by Green Mountain Power and the Department of Public Service. I support both GMP and PSD's requests to retain formal transfer of CPG's through the PUC.

It is important to keep track of CPG's and who owns the system for which the CPG applies. And when the system changes owners, it is important to know that to let the new owner change whether the REC's are retained or transferred. I guess technically that is the renewable attributes.

Request: Require that CPG's be formally transferred through the PUC.

5.127 (B)(1)
Mr. Will requests that an owner may change whether to retain renewable energy certificates after an initial transfer of the REC's to the utility. He suggests every three years.

I have talked about ownership of REC's with several net metering system owners. When I ask about ownership of the REC's, many of them have no idea what I am talking about. This supports Mr. Will's observation that having installers prepare the paperwork "makes it difficult for owners to grasp the significance of the decision to retain or 'sell' their REC's".

According to statute (30 V. S. A. (c)(1)(H))
(1) The rules shall establish and maintain a net metering program that:

> (H) allows a customer to retain ownership of the environmental attributes of energy generated by the customer's net metering system and of any associated tradeable renewable energy credits or to transfer those attributes and credits to the interconnecting retail provider

I infer from this that a new owner of a net metering system has the option of changing the whether the REC's are retained or transferred. This change would occur with transfer of the CPG t o the new owner.

I retained my REC's when I had my system installed. If I were to move into a house with a net-metering system that had transferred the REC's, I would want to have the opportunity to retain the REC's. If I were to be looking for a different house with a net-metering system, it would be important to me to retain the REC's. Having a solar system without the REC's would reduce the value of the house to me.

A periodic ability to regain REC's does have problems for utilities trying to meet the renewable portfolio standards. That is overcome by section 5.135. If an owner is prohibited from participating in the wholesale market, that means an owner cannot sell the REC's through that market. That means that all REC's resulting from net metering systems must be "retired". It should not matter whether the owner or the utility "retires" them. Having the utilities meet goals is a proxy for the State meeting the goals. What is important is that they are "retired", not who gets credit for "retiring" them.

Requests:
 - Allow for new owners of individual systems to retain the environmental attribute and REC's even if the previous owner had transferred them.
 - Consider allowing existing owners periodic options to retain the environmental attributes and REC's from their systems.

<u>5.135 Participation in Wholesale Markets</u>
I pointed out in my October 8, 2021 response that I believe the definition of net-metering prohibits participation in the wholesale market.

The Department of Public Service requests prohibiting aggregations of net-metering systems and participating in the wholesale market. This seems to mean that I could not contract with an aggregator to bundle my 3 REC's each year with others, for a cut in the sales amount.

Request: Prohibit aggregators from participating in the wholesale market. (I have no objection to clarification as requested by VPPSA.)

<u>5.136 Mitigation Fee for Constrained Areas of the Grid</u>
This new section received multiple comments. All Earth Renewables proposes removing this section, or replacing it by incentives to avoid constrained areas, or at least not imposing fees on projects less than 50 kW. I support the third part of this proposal and have insufficient information to respond to the first two requests by All Earth.

Request: If section 5.136 is retained then exempt Category I systems (or systems smaller than 50 kW) from the fee.

5.137 Energy Storage Facility Electrically Connected to a Net-Metering System.
This provision prohibits battery systems charged from the grid from getting net metering credits. When the grid goes down, my batteries provide me with electricity. When the grid comes back up, my batteries charge from the grid or solar or both, depending on how sunny it is. My batteries have a capacity of approximately 9 kWh.

Green Mountain Power asks for clarification of this new section.

I can see two types of energy storage systems. The type of storage that I have is to provide me with electricity when the grid goes down. The other type is what utilities use to reduce peak demands: discharging from storage when their costs are high and filling storage when their costs are low.

I do not understand the implications of this provision, how it might work, and how it would affect my system. My problem is with the inclusion of electricity from the grid.

In the case of my system, the net of my battery component is zero. When full, it was charged with a mix of solar and grid electricity. The grid goes down, and that mix goes into my house. The grid comes back up and the batteries need to be recharged. If they recharge at night from the grid, then the grid gets the same amount of solar electricity the next day: net = zero. If they recharge during the day, the converse is true, and still net = zero. So, 5.137 seems absurd when applied to my system.

Request: Exempt battery back-up systems, used only for back-up when the grid goes down, from this provision.

Option for true (behind the meter) net metering
All Earth Renewables suggests offering a simplified "behind the meter" option. This option seems like a return to a true net-metering system.

Even though we call our program net-metering, we are far from actually having net-metering.

Here in Vermont our net-metering program is far beyond true net-metering. We expanded the program into group systems serving one customer (farms with multiple meters; municipalities with multiple buildings) with the generation behind one of the customer's meters.. We converted kWh's into dollars. Then we allowed the dollars to pay what are now called by-passable charges. We paid generators a bonus for all kWh's they produced. Then we lowered the price one would receive for excess kWh's. We expanded the group systems so that the generation did not need to be behind any customer's meter. There is more that I have left out.

Request: Provide an option to allow behind the meter, true net-metering (one meter: running forward and backward). It would have a production meter if the system owner wants to track how much solar is generated. This option might be limited to Category I systems or it might include all systems Where both the load and the generation are behind the meter. (The cost of my production meter was negligible when compared to the total cost of my system. So I doubt that removing the requirement for a production meter will have much effect on decisions to go solar.)

Delivery of Notices
Multiple locations change the requirement on certain notices to first-class mail. The requirement had been certified mail. (*e.g.*, 5.106(D)(2)) Certified mail has been the standard to show that the notice had been received.

Request: Return to the requirement of certified or require that the notice be sent by some other means means that can provide proof of delivery.

Conclusion
Thank you for taking the time to consider these comments. I hope you find each of them worthy and incorporate them into the next version of this rule.

I do ask you to consider the effect on people with Category I systems. As you are aware, most small system owners apply for a certificate of public good maybe once in their lives. (Most of the comments have come from those who go through the process on a recurring basis. So you have had little direct input from those owners.) Individuals going through this process only once need to have a process that is easy to understand. The rules need to be accessible to these individual owners, both before they get to the point of having an installer and for reference after the installation is over.

Sincerely,
Thomas Weiss