Report to the Vermont General Assembly on the Net-Metering Program Pursuant to Act 99 of 2014

Vermont Public Service Board

January 20, 2017

Contents

Introduction

Pursuant to Act 99 of 2014, the Vermont Public Service Board (the "Board") submits to the Legislature this report on net-metering in Vermont.[1] Since 1997, net-metering has been governed by 30 V.S.A. § 219a. In 2014, the Vermont General Assembly directed the Vermont Public Service Board to design a revised net-metering program. In response to this directive, the Board undertook an extensive investigation involving consumers, electric companies, renewable energy developers, and several state agencies which culminated in the proposal of a revised net-metering rule ("Board Rule 5.100"). Act 99 requires that the Board submit this report, along with the text of the final proposed rule, to the House Committees on Commerce and on Natural Resources and Energy and the Senate Committees on Finance and on Natural Resources.

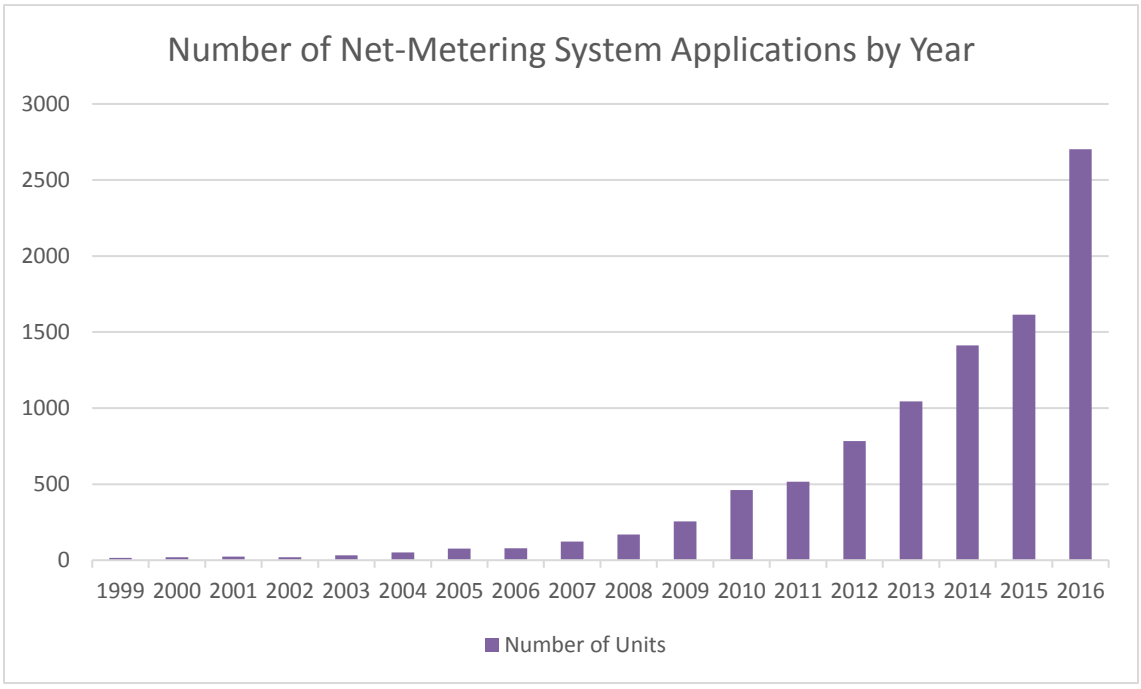
This report is comprised of six sections: (1) a summary of the current pace of net-metering deployment statewide and by utility; (2) a discussion of the costs and benefits of net-metering; (3) an evaluation of the effectiveness of the former net metering program; (4) a description of the Act 99 public process; (5) a discussion of the alternative approaches to net-metering that the Board considered in developing a revised net-metering program; and (6) a synopsis of the rule text and the Board's response to significant comments received on each section of the rule.

[1] Section 5(d)(4) of Act 99 requires the Board to submit a report about the net-metering program and the final proposed net-metering rule. The report must contain a summary of the public comments received on the rule, the Board's evaluation of the effectiveness of the former net-metering program, a description of the alternative approaches to net-metering that were considered, and a summary of the text of the revised net-metering rule.

I. Net-metering deployment statewide and by utility

The net-metering program has grown significantly over the past decade, both in terms of the number of customers participating and the total capacity of net-metering systems installed. As of the date of this report, approximately 9,000 net-metering systems have been approved, representing approximately 172 MW of capacity.[2] The net-metering program consists primarily of photovoltaic systems, which comprise approximately 98% of all systems in the program. Figure 1 shows the growth in the annual number of applications for net-metering systems between 1999 and 2016. Figure 2 shows the cumulative number (8,988 systems) and capacity (172 MW) of net-metering systems approved by the Board.

Figure 1.



[2] These numbers do not reflect data for December of 2016. In December, the Board received more than 700 net-metering applications, representing approximately 18 MW of capacity.

Figure 2. Summary of net-metering permits and capacity approved to date in the service territory of each Vermont distribution utility.

	Solar		Wind		Methane		Hydro		ALL		
Company Name	**Count**	**Capacity (kW)**	**Count**	**Capacity (kW)**	**Count**	**Capacity (kW)**	**Count**	**Capacity (kW)**	**Total Capacity**	**PEAK (kW)**	**% PEAK**
Barton	17	91	2	19	0	0	0	0	109.78	3040.00	3.61%
BED	176	6754	4	15	1	248	0	0	7016.64	67000.00	10.47%
Enosburg	30	695	1	2	0	0	0	0	697.12	5740.00	12.14%
CVPS	887	7052	63	344	1	19	4	446	7860.92		
GMP	6273	132220	48	1094	5	405	12	3421	137140.2	766200.00	18.92%
Hardwick	83	1087	10	81	0	0	0	0	1168.43	6930.00	16.86%
Hyde Park	28	331	1	10	0	0	0	0	340.54	2530.00	13.46%
Jacksonville	5	91	3	11	0	0	0	0	101.93	1180.00	8.64%
Johnson	0	0	0	0	0	0	0	0	0.00	2800.00	0.00%
Ludlow	3	31	0	0	0	0	0	0	31.20	12400.00	0.25%
Lyndonville	79	1300	2	99	0	0	0	0	1398.15	13480.00	10.37%
Morrisville	52	835	4	38	0	0	0	0	872.90	9170.00	9.52%
Northfield	25	111	0	0	0	0	0	0	111.03	5330.00	2.08%
Orleans	0	0	0	0	0	0	0	0	0.00	3570.00	0.00%
Stowe	62	628	0	0	1	20	0	0	647.64	18680.00	3.47%
Swanton	23	1602	0	0	0	0	0	0	1601.83	10430.00	15.36%
VEC	761	10365	45	332	1	62	0	0	10759.03	83170.00	12.94%
WEC	268	2020	8	70	0	0	0	0	2090.70	16010.00	13.06%
TOTAL	**8772**	**165212.71**	**191**	**2113.96**	**9**	**753.75**	**16**	**3867.65**	**171948.0**	**1027660.0**	**16.7%**

Note: This table does not inlcude any systems proposed in November and December of 2016. The Board received more than 700 additional applications in December representing an estimated additional 18 MW of solar capacity.

II. The Costs and Benefits of Net-Metering

Costs of Net-Metering

In 2014, the Vermont Department of Public Service (the "Department") published a report evaluating the state of net-metering in Vermont pursuant to Act 99.[3] In this report, the Department estimated that the 20-year, levelized cost of net-metered power at the rates provided for under 30 V.S.A. § 219a was approximately 22 cents per kWh.[4] Figure 3 compares the cost of net-metering under Section 219a to other in-state renewable energy resources that Vermont utilities have recently acquired.

Figure 3.

Resource	Price per kWh	Notes
Section 219a Net-Metering	~22 cents	Utility does not receive Renewable Energy Certificate ("REC")
Large Scale Wind	8.8-11 cents[5]	Includes REC
Energy Efficiency	4.4 cents[6]	Not electricity, no RECs
Standard-Offer Solar 2.2	10-13 cents[7]	Utility receives REC
Other Tier II solar resources	~12 cents[8]	Utility receives REC

Benefits of Net-Metering

The Department's report estimated that the value of the benefits provided by net-metering is currently less than the cost of such power but that in the future the forecasted benefits of net-metered power would eventually exceed the costs.[9] Accordingly, when compared on a 20-year, levelized basis, the Department predicted that the costs and benefits of net-metering were roughly equal. However, the Department's analysis assumed that Vermont utilities and their customers would receive 3 cents of value for RECs generated by solar net-metering systems.[10]

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[3] Vermont Department of Public Service, *Evaluation of Net Metering in Vermont Conducted Pursuant to Act 99 of 2014* (revised November 1, 2014) ("2014 DPS Net-Metering Report").
[4] 2014 DPS Net-Metering Report at 18.
[5] *See e.g., Amended Petition of Deerfield Wind, LLC*, Docket 7250, Order of 1/8/16 at 2.
[6] Efficiency Vermont, 2015 Annual Report at 4 ("Efficiency Vermont supplied electric efficiency at a levelized cost of approximately 4.4 cents per kilowatt-hour (kWh) over the average expected lifetime of the efficiency measures installed in 2015.").
[7] In 2016, the Board received proposals from 17 solar projects with bid prices of 10.9 to 13 cents. One project bid 7.5 cents but this price is not reflected in the chart because it did not appear to be representative of the market for 2.2 MW solar projects. *Programmatic Changes to the Standard-Offer Program*, Dockets 7873 and 7874, Order of May 2, 2016, at 4.
[8] *See e.g., Petition of Williston GMP Solar*, Docket No. 8562, Order of 3/4/16 at 6.
[9] This assessment varied depending on the size and technology of the net-metering systems assessed and also varied by utility. For example, the value of power produced by a 100 kW solar facility was slightly positive in the case of GMP but slightly negative for customers of BED. 2014 DPS Net-Metering Report at 24.
[10] DPS 2014 Evaluation at 15 ("For the purposes of this report, the Department has assumed a fixed value of $30/MWh in nominal terms.").

Section 219a of Title 30 allowed net-metering customers to retain the RECs generated by their system without reducing the rate of compensation received from their utility.[11] In fact, out of the 172 megawatts of net-metering systems approved under the former regulations, only a small fraction of these customers elected to transfer RECs to their utility. As a result, when this fact is accounted for, the Department's 2014 analysis shows that the current value of net-metered power is significantly less than its cost and that under the terms of the former net-metering statute, net-metered power will likely continue not to be a cost-effective source of power.

In addition to the REC issue described above, the Board finds that the value that would be obtained from future additional net-metering systems will be even less than estimated in the Department's 2014 report. In its 2014 analysis, the Department attributed value to net-metered solar power due to avoided capacity and transmission charges.[12] This was likely true at that time because there was low penetration of solar on the Vermont and the New England electric system. Therefore, these initial solar plants had the potential to significantly reduce the daily system peak. However, due to the success of state renewable energy programs, a significant amount of solar capacity has been installed in Vermont and New England since 2013.[13] As a result, Vermont utility peaks are shifting towards later in the day and even past sundown in some cases.[14] Therefore, new solar capacity will not provide the same benefits as in the past because these additional solar plants will not be able to reduce Vermont utility peaks to the extent that previously installed plants did.

Similarly, the summer peak of the New England region is beginning to shift later in the day when solar output is diminished, thus reducing the benefits in the regional capacity and transmission markets that solar has previously provided.[15] In reviewing proposals for new facilities, the Board has found that the value of the benefits from more recent solar plants constructed in Vermont is more likely in the range of 14 to 15 cents per kW hour.[16] This estimate includes forecasted values for energy, capacity, transmission, and RECs. These estimates will likely change over time, which is one reason why the Board's final proposed rule provides for periodic investigations into the rates for new net-metering systems.

The net-metering program has also contributed to a growing renewable energy industry in Vermont, which has created jobs. The 2016 Vermont Clean Energy Industry Report estimates that 2,100 employees work in the solar industry. A portion of these jobs is directly attributable

[11] 30 V.S.A. 219a(h)(1)(I).
[12] 2014 DPS Net-Metering Report at 12-14.
[13] Between 2013 and 2015, ISO NE estimates that the installed capacity of solar facilities in New England rose from approximately 500 MW to 1,325 MW, an increase of approximately 825 MW.
[14] See *Programmatic Changes to the Standard-Offer Program*, Docket No. 7873, Order of 6/12/15 at 6 ("GMP states that this solar-generation peak offset will level off in a few years as the area's post-sundown peak load begins to exceed the customary mid-day to late afternoon peak load.").
[15] https://www.iso-ne.com/about/what-we-do/in-depth/solar-power-in-new-england-locations-and-impact ("Because greater amounts of PV will actually shift the timing of peak demand for grid electricity to later in the afternoon or evening, PV's ability to reduce peak demand will actually diminish over time.").
[16] *Petition of GMPSolar - Williston, LLC*, Docket 8562, Order of 3/4/16 at 10.

to net-metering. However, only 4.3 % of the firms surveyed for the report indicated that net-metering policies contributed to the success of those firms.

III. Evaluation of the Effectiveness of the Former Net-Metering Program

For the purposes of this report, the Board has evaluated the former net-metering program based on how effectively the program has promoted the achievement of each of Vermont's eight renewable energy goals, as expressed in Section 8001 of Title 30. Each Section 8001 goal is reproduced below, followed by a discussion of how effective the former net-metering program has been at promoting it.

(1) Balancing the benefits, lifetime costs, and rates of the State's overall energy portfolio to ensure that to the greatest extent possible the economic benefits of renewable energy in the State flow to the Vermont economy in general, and to the rate-paying citizens of the State in particular.

In terms of capacity, a significant portion of Vermont's in-state renewable energy is generated by net-metering systems. Under Section 219a, customers participating in net-metering using photovoltaic systems are credited with either 19 or 20 cents per kWh of energy produced by their systems. Net-metering customers are also allowed to retain the RECs that are generated by their net-metering systems. As a result, net-metered power in Vermont costs substantially more than alternative sources of in-state renewable energy. For example, in the standard-offer program, developers of moderate-sized solar plants have expressed strong interest in securing long-term contracts under which they would sell energy, capacity, and RECs for approximately 10 to 13 cents per kWh. Vermont utilities have recently developed moderate-sized solar projects at estimated costs well below 19 or 20 cents per kWh. These alternative sources of in-state renewable energy offer benefits similar to those provided by net-metered power, such as avoided energy costs, capacity charges, and line losses, but at a much lower cost.

Assuming that the approximately 172 MW of solar net-metering systems that have been permitted to date are installed, the Board estimates that these systems annually will cost Vermont ratepayers approximately $21,000,000 more than if this power had been supplied by more competitively priced projects. In-state renewable energy facilities that are smaller than 5 MW provide similar system benefits to net-metering systems such as reducing capacity obligations, regional network charges, and market energy purchases.

This $21,000,000 estimate assumes a price differential of 7 cents per kWh. This estimate also assumes that net-metering customers choose to retain RECs and that the replacement cost of such RECs is 3 cents per kWh. This estimate is conservative because past experience indicates that the price of renewable energy resources, particularly solar, will continue to decline. It is also worth noting that solar standard-offer contracts have fixed prices for a term of 25 years. In contrast, net-metering prices, while fixed for the first ten years of a plant's operation, are tied to residential rates and therefore are likely to increase over time because residential rates tend to increase over time.

The purpose of this comparison is not to suggest that Vermont should, or could, procure all of its renewable power from standard-offer plants or any other particular source, but instead is meant to highlight the additional cost to ratepayers when power is procured from a source that is not least-cost. To the extent that other sources of energy or energy efficiency cost less than standard-offer resources, the comparative additional cost to ratepayers of net-metered power is greater than described above.

Due to the costs described above, the net-metering program has begun to exert upward pressure on rates for Vermont utility customers. For example, GMP has represented that net-metering will cause a 1.5% rate increase for its customers in the 2016-2017 rate year. Similarly, the Vermont Electric Cooperative has estimated that if built, the net-metering systems authorized under Section 219a would result in a 3.2% rate increase for its customers. The Board expects that in the near term, upward rate pressure from the net-metering program will continue as more net-metering systems are built.

(2) Supporting development of renewable energy that uses natural resources efficiently and related planned energy industries in Vermont, and the jobs and economic benefits associated with such development, while retaining and supporting existing renewable energy infrastructure.

The rapid expansion of net-metering in Vermont has fueled significant growth in the businesses that develop, sell, and install net-metering systems. As a result, the former net-metering program has created jobs and brought economic benefits to Vermont. According to the Department of Public Service's Clean Energy Industry Report, the solar electric generation sector employs more than 2,100 workers. A portion of these jobs is attributable to the net-metering program.

While renewable energy facilities do not consume natural resources for fuel, such resources are consumed through the construction of such facilities. The former net-metering program provided comparable economic incentives for all net-metering systems regardless of their environmental siting impacts. As a result, net-metering systems have disproportionately been sited in undeveloped fields and forests because greenfield sites cost less to develop. Therefore, the final proposed rule introduces incentives for constructing net-metering systems in a manner that reduces the environmental impact of such construction by offering higher rates for net-metering systems that are sited on preferred sites such as roofs and previously developed areas.

(3) Providing an incentive for the State's retail electricity providers to enter into affordable, long-term, stably priced renewable energy contracts that mitigate market price fluctuation for Vermonters.

Pursuant to Section 219a, net-metering customers received the retail rate for electricity produced by their net-metering system. The cost of net-metered power does not fluctuate as

much as market prices for power, but the cost of net-metered power does change over time and will likely increase in the future as retail rates increase.

(4) Developing viable markets for renewable energy and energy efficiency projects.

The former net-metering program has been effective in promoting this goal. Net-metering is usually the most economic option for very small renewable projects because generators are given significant compensation for each kWh of energy produced. For example, pursuant to Section 219a, net-metering customers receive 19 or 20 cents per kWh of power they produce. These rates are significantly higher than regional market rates for power or the rates contained in negotiated bilateral contracts between merchant generators and utilities. Therefore, the net-metering program has created a new market for small renewable power producers that otherwise would not exist.

(5) Protecting and promoting air and water quality in the State and region through the displacement of those fuels, including fossil fuels, which are known to emit or discharge pollutants.

It is difficult to evaluate with certainty how effectively the former net-metering program has promoted air and water quality in Vermont and the region. The primary reason for this uncertainty is that net-metering customers may retain ownership of the RECs generated by their systems and are not obliged to report whether such RECs are retired or sold for compliance in other states. The overwhelming majority of net-metering customers in the former net-metering program choose to retain ownership of the RECs generated by their system. A portion of these RECs were sold for compliance in other states. Therefore, this part of the net-metering program is not contributing to the reduction of Vermont's greenhouse gas emissions. On a regional basis, the overall addition of non-carbon emitting generation has likely reduced greenhouse gases to some extent.

(6) Contributing to reductions in global climate change and anticipating the impacts on the State's economy that might be caused by federal regulation designed to attain those reductions.

It is difficult to assess with certainty how effective the former net-metering program has been in promoting this goal. For the same reasons stated in Section IV(5) above, it is difficult to precisely assess to what extent the net-metering program has reduced global climate change.

(7) Providing support and incentives to locate renewable energy plants of small and moderate size in a manner that is distributed across the State's electric grid, including locating such plants in areas that will provide benefit to the operation and management of that grid through such means as reducing line losses and addressing transmission and distribution constraints.

With respect to the goal of locating "renewable energy plants of small and moderate size in a manner that is distributed across the State's electric grid," the program generally has been successful. Net-metering systems have been constructed across Vermont generally in a distributed manner. However, there are certain areas where development has been highly concentrated. As a result, certain parts of Vermont's distribution system are no longer able to interconnect additional electric generation without first upgrading the system.

With respect to the goal of locating net-metering systems in locations that benefit the operation and management of the grid, the former net-metering program does not provide an incentive for the beneficial siting of net-metering systems. The final proposed rule creates an incentive for net-metering customers to install net-metering systems on roofs (which are likely to be coincident with the load that is served) or to install systems adjacent to a customer who consumes at least 50% of the power generated by the system.

(8) Promoting the inclusion, in Vermont's electric supply portfolio, of renewable energy plants that are diverse in plant capacity and type of renewable energy technology.

The former net-metering program has promoted the development of many small photovoltaic net-metering systems. The net-metering program is almost entirely comprised of solar facilities. By number of CPGs or permits, the program is predominantly comprised of systems smaller than 15 kW. By capacity, over 80% of the net-metering program is comprised of larger systems between 150 kW and 500 kW.

IV. The Act 99 Public Process

Act 99 directed the Board to "convene one or more workshops to solicit the input of potentially affected parties and the public on the design of a revised net metering program." The Board held a preliminary workshop on November 5, 2014, to discuss the Vermont Department of Public Service's report evaluating the state of net-metering in Vermont. Additionally, the Board requested comment on what process to follow to solicit input from potentially affected stakeholders designing a revised net-metering program. The Board also sought two rounds of written comments to inform how the Board should garner public input.

Based on the feedback received at the preliminary workshop and in written comments, the Board formed three working groups to explore specific aspects of a revised net-metering program: rate structure, administrative processes, and interconnection. The Board subsequently held 13 working group meetings from February 2015 through May 2015. A website was maintained to facilitate access to the materials presented at these meetings and to provide information about future meetings.[17]

The Board solicited public comments and proposed rule language on June 12, 2015, and another round of comments on July 10, 2015, prior to drafting revisions to the Board's net-metering rule. On December 8, 2015, the Board circulated a proposed draft rule with the working group participants and solicited comments on the draft.

In response to the first draft of the rule, the Board received substantial feedback from the public. These comments raised significant issues about how the draft rule would affect net-metering customers, ratepayers, and businesses that install net-metering systems. The Board subsequently published another draft of the rule on February 19, 2016. Again the public was invited to comment on the revised draft rule text.

The Board filed a proposed a net-metering rule with the Vermont Secretary of State on March 30, 2016. The public was invited to comment on the proposed rule and the Board conducted two public hearings on May 4 and 5, 2016. The public submitted more than 500 comments on the proposed rule. This feedback again brought new issues to the Board's attention that had not yet been fully considered. For example, the rapid growth of net-metering systems in 2015 and 2016 had prompted new concerns about the costs of the net-metering program. Additionally, the passage of Act 174 of 2016 led the Board to consider whether the net-metering rule was consistent with the Legislature's desire to ease public participation in Board proceedings.

As a result, the Board determined that further significant revisions to the text of the rule were necessary. These changes were substantive and therefore could not be incorporated into a final rule without additional public process. Accordingly, to ensure that Vermont's net-metering

[17] This information on this website is now available on the Board's online document management system: http://epsb.vermont.gov/. The case number is 16p010.

program would serve the best interests of the state and its residents, the Board filed a new proposed rule, as opposed to adopting a final rule.

Act 99 provides that in the event that the Board is unable to finally adopt a revised net-metering rule prior to June 30, 2016, the Board has the authority to temporarily adopt a revised net-metering program by order, to be followed by a rulemaking within a reasonable timeframe. On June 29, 2016, the Board issued an order establishing a revised net-metering program because the Board was unable to adopt a final rule prior to the statutory deadline of June 30, 2016. As part of the June 29th order, the Board invited the public to file comments on the revised net-metering program. On August 29, 2016, the Board issued an order instituting certain changes to the net-metering program that were made in response to these comments. The Board took these steps to ensure that there would be a functional net-metering program in effect on January 1, 2017, while at the same time providing an opportunity for additional public input and to improve the design of the program.

The Board then filed a new proposed rule with the Secretary of State on October 15, 2016. The public was provided an opportunity to comment, and a public hearing was held on November 18, 2016. After reviewing these comments, the Board made additional changes to the rule and filed the final proposed rule with the Legislative Committee on Administrative Rules on January 20, 2017.

V. Discussion of Alternative Approaches to Net-Metering Considered

In developing the proposed rule, the Board considered the following potential alternative rate structures for net-metering: (1) a continuation of the former net-metering program; (2) retail rate net-metering; and (3) a value model. In addition to considering these general approaches to net-metering, the Board considered hundreds of specific comments on the net-metering rule. A discussion of these more specific alternatives is contained in Section VI of this report.

The former net-metering program can be described as a "retail plus" rate structure, meaning that net-metering customers receive the retail rate of electricity plus an additional incentive payment for each kWh of energy produced. Pursuant to state law, the cumulative cost of this rate structure is approximately 22 cents per kWh. This rate structure is expensive in comparison to other sources of renewable energy and has likely resulted in upward rate pressure for electric customers.[18] Additionally, the former net-metering rate structure was designed with an economic incentive to develop solar net-metering systems that has subsequently become too costly because of significant reductions in the cost of solar technology. For these reasons, while the Board has calculated that it is appropriate to maintain a retail-rate-based structure, the Board concluded that the net-metering program should be revised to reduce the cost to ratepayers of other economic incentives provided to net-metering customers to guard against unduly shifting costs from customers who net-meter to those who do not.

The Board also considered using a retail rate structure with no additional economic incentives to participate in the net-metering program. Adopting a retail rate structure has the potential to reduce program costs compared to the "retail plus" model. This model differs from the model in the proposed rule in that retail-rate net-metering contains no incentives that are tailored to encourage desired behavior--such as building net-metering systems on roofs instead of green fields. In comparison to the proposed rule, retail rate net-metering would likely result in greater costs to Vermont and its residents over the long term. While the proposed rule offers initial economic incentives that in some cases exceed the retail rate, the rule also provides for biennial update proceedings whereby the Board can taper any economic incentives if the price of technology changes over time. For example, the price of solar technology has declined significantly since the beginning of the net-metering program. The Board expects some further reduction in price to continue. For these reasons, the Board chose to include rate adjustors over a plain retail rate model so that the net-metering program can reflect changes in the cost of technology.

Finally, the Board considered using a model that estimates the total value of the power produced by net-metering systems to determine the value of net-metering credits, as opposed to conducting a biennial proceeding to evaluate the rates for net-metering customers. While some participants in the Board's workshop process advocated for this rate structure, the Board was not

[18] For a more detailed discussion of costs and the comparison of alternative sources of renewable energy, please refer to Part II of this report.

able to develop, and no participant proposed, a workable model for estimating the future value of power produced by net-metering systems. Accordingly, the Board did not choose this rate structure at this time.

VI. Synopsis of the Text of the Final Proposed Net-Metering Rule and Responses to Comments

Below is a section-by-section summary of the text of the final proposed rule. The Board has also provided a response to the substantial arguments raised by the public concerning each section.

Part I: General Provisions

Section 5.101 Purpose and Scope
Summary

This section defines the scope of the new rule and identifies the Board's general statutory authority to establish a net-metering program. This section also incorporates the statutory prohibition against the commencement of site preparation for or construction of a net-metering system or the conversion of an existing plant into a net-metering system without first obtaining a certificate of public good ("CPG") from the Board under Rule 5.100.

Response to Comments

One comment suggested that this section be amended to include the following statement: "Nothing in this rule will affect the terms and validity of a certificate of public good issued prior to January 1, 2017." The Board has not adopted this recommendation. All CPGs issued by the Board are conditioned upon the CPG holder complying with all applicable future statutes, rules, and orders. Pursuant to Section 5.124 of this Rule, pre-existing net-metering systems are exempt from certain requirements of this Rule and subject to others. In this context, the language proposed by the comment is potentially confusing because it might be construed as exempting existing CPGs from the entirety of this Rule.

Section 5.102 Computation of Time

Summary

This section governs the computation of time in all proceedings arising under this rule. The rule largely mirrors Rule 6 of the Vermont Rules of Civil Procedure. However, the language has been written to make the rule easier to read for non-attorney participants before the Board.

Response to Comments

The Department of Public Service recommends that "unavailability" only apply when the Board's office *and* the Board's electronic filing system are unavailable. The Board agrees with this proposed change and has amended the final proposed rule accordingly.

5.103 Definitions

Summary

Section 5.103 contains definitions of material terms that are used in the net-metering program.

Response to Comments

Definition of "Amendment." One comment proposed to allow residential or small business customers who have systems of less than 35 kW to increase system capacity by up to 20% as a minor amendment. The Board has determined that it is not appropriate to allow customers to increase the size of their systems, even by relatively small amounts, through the minor amendment process, which is described in Section 5.110. Such changes could have significant impacts on the local distribution system. Therefore, the electric company should have an opportunity to review such changes using the application process applicable to the size of the system proposed. In the case of small systems, the timeframe for the review of such applications would be the same as the amendment process.

Definition of "Blended Residential Rate." It was suggested that the use of the blended residential rate, as defined in the rule, was not fair because some customers would be credited for generation at less than the retail rate they pay for electricity consumed. The Board has chosen to use the blended residential rate as the base rate for two reasons: First, to ensure that development pressure is not concentrated in the service territories of electric companies with high kWh charges. This will help promote the even deployment of net-metering on a statewide basis, which is consistent with the state's renewable energy goals for distributed generation. Second, the use of the blended residential rate acts as a cap on the costs of net-metering and keeps those costs more in line with the value of the products produced by net-metering systems. For example, some Vermont distribution companies have per kWh rates that exceed 17 cents per kWh. This price is too high considering the other available sources of in-state renewable energy. Therefore, the Board has not altered the definition of the blended residential rate.

Definition of "Customer." One comment suggested amending the definition of customer to mean only "existing retail electric consumers." Limiting the net-metering program to existing retail electric consumers would prevent new customers, such as a newly constructed home, from engaging in net-metering. The commenter has not explained why such a limitation would be in the public interest or is necessary. Therefore, the Board has not adopted this change.

One comment suggested that the definition of customer be revised to clarify that a customer can be responsible for more than one account. The proposed rule does not prohibit a customer from being responsible for more than one account. The comment has not explained why such a change to the text of the rule is necessary. Therefore, the Board has not revised the rule as suggested by this comment.

Definition of "Group Net-Metering." One comment stated that there are no criteria provided in the definition of group net-metering to determine when municipal buildings will or will not qualify as part of a group. The comment recommended that the Board add criteria regarding when municipal buildings may constitute a group or remove this portion of the definition. The Board observes that the definition of group net-metering systems is a statutory

one. Pursuant to Section 5.129, a group administrator may identify any meters to be part of the same group, provided they are in the same utility service territory. Therefore, it is within the discretion of the group administrator to choose which meters are in a group, provided all meters are in the same service territory. Pursuant to Sections 5.128(c) and (D), no account may be enrolled in more than one group at a time and no customer may have more than 500 kW of net-metering capacity allocated to it. Therefore, the Board finds that no additional criteria for the definition of group net-metering system are necessary.

Another comment took issue with the final sentence of the definition of "group net-metering system," which states:

> *A union or district school facility shall be considered in the same group net-metering system with buildings of its member municipalities that are located within the service area of the same retail electricity provider that serves the facility.*

The comment suggests that this sentence could be interpreted to mean that all school buildings and town buildings within a supervisory union must constitute a single net-metering group that is subject to the 500 kW customer cap contained in Section 5.128. The Board does not agree with this interpretation of the Rule for two reasons. First, the preceding sentence of the definition states that "various buildings owned by municipalities, including . . . school districts, . . *may* constitute a group." Therefore, the Board finds that the Legislature intended for schools and towns to have the option to form a group that includes municipal and school accounts but did not intend to require that all accounts of any town or school must be included in such groups. Second, the 500 kW net-metering limit contained in Section 5.128 applies to each individual "customer." If school districts that are members of a supervisory union are separate utility customers, then each may use up to 500 kW of net-metering systems. Therefore, the Board has not altered the final portion of this statutory definition.

Definition of "Net-Metering." One comment suggested including the entire statutory definition of net-metering in the Rule. The Board agrees and has changed the rule accordingly.

Another comment suggested that the definition of net-metering should be revised so that the energy measurement of net-metering systems reflects where the system's energy is coming from at every instant in time versus simply subtracting meter readings taken at the beginning and end of a billing period. This comment argues that the definition of net-metering is an over-simplification of the process that results in misleading conclusions and discards important data about renewable energy usage. The term net-metering is defined in Title 30. The comment has not demonstrated that the Legislature intended for the utility to measure net consumption or production on an instantaneous basis. Therefore, the Board has not altered the Rule in response to this comment.

Definition of "Non-Bypassable Charges." One comment suggested that the Rule improperly delegates to the utilities the ability to include in their tariffs other charges to which a net-metering customer may not apply the customer's credits from excess generation. No utility will be able to classify a charge as non-bypassable without first obtaining approval of that

classification by the Board and after review by the Department. Additionally, the Board may suspend and investigate any proposed utility tariff that the Board believes to be unjust or unreasonable. While the definition of non-bypassable charges specifies a number of standard bill charges as non-bypassable, the Board intends to allow utilities to request that other charges be classified similarly. Such flexibility is warranted because each utility's rate design may involve charges that the Board has not enumerated in the rule but would nonetheless be appropriately classified as non-bypassable because the utility will incur those costs whether a customer net-meters or not.

Other comments objected to the implementation of non-bypassable charges generally. The Board has determined, pursuant to Section 8010(c)(2)(C), that the customer charge, energy efficiency charge, energy assistance program charge, any on-bill financing payment, and any equipment rental charge should be non-bypassable charges. This means that net-metering customers will not be able to apply any accrued net-metering credits to these charges. The Board has decided on this policy to ensure that net-metering does not shift costs between net-metering customers and other customers as required by Section 8010(c)(1)(C). Non-bypassable charges reflect costs attributable to a customer regardless of whether the customer net-meters. Non-bypassable charges are not new fees or charges that are specially charged to net-metering customers. Instead, non-bypassable charges are bill items that are currently assessed to customers and that the Board has determined should not be offset by excess production from new net-metering systems after January 1, 2017.

The primary example of a non-bypassable charge is the customer charge. The Board has long pursued a policy of cost-based rates in order to send customers accurate price signals about their electricity consumption.[19] In order to set energy rates (i.e., a customer's kWh charge) as close as possible to the marginal cost of energy, an electric company must, among other tasks, identify which of its costs do not vary with a customer's consumption (for example, metering and billing costs). These costs are typically allocated to the customer charge.[20] It is important to realize that the electric company incurs these customer-related costs even if a net-metering customer produces enough electricity to offset all of his or her usage; to the extent the electric company does not collect revenue from that net-metering customer to cover the customer charge, these costs are shifted to other customers.

Another example of a non-bypassable charge is the energy efficiency charge. The energy efficiency charge is set at a level that would realize "all reasonably available, cost-effective energy efficiency savings."[21] Net-metering customers benefit from the savings produced by electric energy efficiency programs and can also participate in such programs. Accordingly, the Board believes it is important for net-metering customers to contribute equally to the state's electric efficiency programs. For these reasons, the Board has not revised the rule to eliminate non-bypassable charges as requested by some comments.

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[19] *In Re Green Mountain Power Corp.*, Docket No. 6958, Order of 10/21/05, at 17.

[20] In practice, because rate design is as much art as it is science, customer charges do not always collect all of the costs that do not vary with a customer's consumption. *See, e.g., Id*. at 18 (establishing that 62% of customer-related costs would be recovered through the customer charge).

[21] 30 V.S.A. § 209(c)(3)(B).

Definition of "Pre-existing System." Several comments pointed out that the definition of pre-existing systems needed to be clarified to explicitly include landfill net-metering systems that did not count towards the net-metering cap and therefore could be proposed outside of the time that the electric company was offering net-metering service. The Board has revised the definition of pre-existing systems to define such "outside the cap systems" as pre-existing, so long as a complete application was filed prior to January 1, 2017.

Another comment suggested adding language to the definition of pre-existing systems to require a certification from the Board that such applications were complete. All applications are reviewed for completeness when they are received. Any incomplete applications are rejected. Therefore, the proposed requirement for a "certification" is not necessary.

Definition of "Preferred Site." Several comments suggested that a site identified by a municipal selectboard and planning commission be qualified as a preferred site, as opposed to only sites identified in a town plan. These comments state that revised town plans may take months or years to be adopted, which will limit the availability of locally preferred sites. The Board agrees with these comments and has revised the definition of preferred sites to include not only sites identified in a town plan, but also sites identified in a joint letter signed by the municipal legislative body and planning commission.

Several comments suggested providing the financial incentives for preferred sites to community solar. The purpose of offering financial incentives to net-metering systems located on preferred sites is to encourage the development of net-metering systems in areas with fewer environmental and land-use impacts. The comments advocating for community solar did not explain how the ownership structure of a project will lead to more environmentally beneficial siting of such systems. Community solar projects should be developed in the areas identified as preferred sites, such as roofs or previously developed areas, if these projects wish to receive siting incentives.

Several comments proposed changes to the definition of preferred site #9, which encourages projects to be close to load by offering incentives to projects located on or adjacent to a customer who is allocated 50% or more of the project's output. Some comments expressed concern that such projects might become stranded if the on-site customer went out of business. These comments suggested that the Board revise the definition of preferred sites to allow such projects to be transferred to another customer. The rule does not require that the onsite or adjacent customer receiving at least 50% of net-metering credits be the same customer for the entire 10-year period. Therefore, the requested changes are not necessary.

One comment suggested that the Board increase the period of time that an onsite customer must take power to 20 years in order to qualify as a preferred site under #9. The comment did not explain the regulatory purpose for extending the required time period. Therefore, this change was not adopted.

Part II: Registration and Application for CPGs

5.104 Eligibility

Summary

This section establishes the basic eligibility criteria for net-metering systems. The most significant requirement of this section is that larger net-metering systems (greater than 150 kW) that are not hydroelectric systems must be on a "preferred site" to be eligible to participate in the net-metering program.

Response to Comments

Several comments opposed the requirement that systems larger than 150 kW must be located on "preferred sites." These comments assert that this provision exceeds the Board's authority under Act 99 and will result in a significant reduction in the number and capacity of community net-metering systems developed in Vermont. The comments assert that this provision will hinder achievement of the state's renewable energy goals and that firms developing large net-metering systems will suffer economic losses.

The Board has considered these comments and finds them unpersuasive. Larger net-metering systems that are not built on preferred sites are more like merchant generators. Such systems rely on the grid to export power to other retail users. As a matter of policy this type of development should be compensated through bilateral contracts or through participation in the regional wholesale market and not through the preferential terms offered by net-metering. Furthermore, given the size and scope of these facilities, it is appropriate to review proposals for these facilities that are located on green fields using the full procedures of Section 248. For these reasons, the Board finds that it is in the public good to require that large net-metering systems be located on preferred sites in order to justify the significant financial and procedural advantages that net-metering systems receive in comparison to other generation projects.

5.105 Registration of Hydroelectric Facilities, Ground-Mounted Photovoltaic Facilities of up to 15 kW in Capacity, and Roof-Mounted Photovoltaic Net-Metering Systems of Any Capacity

Summary

This section establishes a registration process for small solar net-metering systems, roof-mounted net-metering systems, and hydroelectric systems. Registrants seeking permission to net-meter using one of these types of systems may file a simple form with the Board, with copies to the affected electric company, the Department of Public Service, and the Agency of Natural Resources. Depending on the size of the system, there is either a 10- or 30-day comment period. If the Board receives no objections, then the registrant may commence construction of their system the day following the close of the comment period.

5.106 Applications for Ground-Mounted Photovoltaic Net-Metering Systems Greater Than 15 kW and Up to and Including 50 kW and for Facilities Using Other Technologies Up to and Including 50 kW

Summary

Section 5.106 describes the process and requirements for filing a net-metering CPG application for a ground-mounted photovoltaic system that is greater than 15 kW and up to and including 50 kW in capacity. This section also applies to net-metering systems using other technologies that are up to and including 50 kW in capacity (except for hydroelectric systems). As required by 30 V.S.A. § 8010, the Board has simplified this process "as appropriate," considering the characteristics of the net-metering systems subject to the process set forth in this section of the rule. The review process described in this section consists of three steps: (1) a 45-day advance notice,[22] (2) the submission of an application form and site plan, and (3) a 30-day comment period. A party may request a fourth step, namely an evidentiary hearing.

This process is greatly simplified when compared to the procedures of 30 V.S.A. § 248, which include: (1) filing a 45-day advance notice, (2) prefiled testimony and exhibits, (3) a public hearing, (4) a site visit, and (5) an evidentiary hearing. The streamlined procedure provided for in this section allows net-metering projects to file through a simple application form (as opposed to testimony) and, where there is no controversy regarding the proposal, eliminates the hearings otherwise required by Section 248.

Response to Comments

Several comments suggested that the procedures contained in Section 5.106 were not sufficiently simplified, particularly for community solar projects. These comments point out that Act 174 of 2016 directed the Board to simplify the application process for such systems. Several other comments recommend that the application procedures for this section be available for projects up to 150 kW.

The Board has considered these comments but finds that further simplifying the review procedures of Section 5.106 would not be in the public good because these procedures are necessary to ensure that projects meet the criteria of Section 248. The procedures of Section 5.106 are greatly simplified compared to the full requirements of Section 248. For example, applicants may file using a form as opposed to submitting a petition containing sworn testimony. Additionally, non-controversial projects may be granted a CPG without the evidentiary hearing that Section 248 typically requires for generation facilities. In the event that an evidentiary hearing is held, the procedures for such hearings are also simplified, including limited discovery.

One comment recommended that the Board require the owner of the land upon which a project will be located to be the applicant. According to the comment, a CPG is an instrument burdening the land and therefore must be signed by the landowner. It is common for net-metering applicants to construct net-metering systems on leased land. The Board finds that this proposed additional requirement would burden the application process and is not necessary. The owner of the project parcel is entitled to receive a copy of the CPG application under the final

[22] This 45-day notice is required by Section 8010(c)(3)(F)(ii), which states that the Board may not waive the pre-application notice required by Section 248(f) for net-metering systems greater than 15 kW.

proposed rule. If the landowner wishes to intervene as a party, he or she may do so by right. For these reasons, the Board has not adopted this proposed revision to the rule.

5.107 Applications for Net-Metering Systems Greater Than 50 kW That Are Not Roof-Mounted Photovoltaic Systems or Hydroelectric Facilities

Summary

Section 5.107 describes the process and requirements for filing a net-metering CPG application for systems greater than 50 kW that are not roof-mounted photovoltaic systems or hydroelectric facilities. As required by Section 8010, the Board has simplified this process "as appropriate," keeping in mind the characteristics of the net-metering systems subject to the process set forth in this section. The review process for net-metering systems that are larger than 50 kW consists of three steps: (1) 45-day advance notice, (2) the submission of testimony and exhibits, and (3) a 30-day comment period. This process is more streamlined than the procedures of 30 V.S.A. § 248 because uncontroversial proposals may be approved without a hearing.

Response to Comments

Several comments suggested that the procedures contained in Section 5.107 were not sufficiently simplified, particularly for "community solar." For example, these comments contend that the requirement to submit sworn testimony in support of an application is burdensome. These comments point out that Act 174 of 2016 directed the Board to simplify the application process for such systems that are more than 50% owned by customers who participate in the system.

The Board has considered these comments and finds that further simplifying the review procedures of Section 5.107 would not be in the public good because these procedures are necessary to ensure that projects meet the criteria of Section 248. Ground-mounted systems of greater than 50 kW have the potential for significant environmental and aesthetic impacts that need to be properly evaluated. Therefore, the Board finds that it is appropriate for applicants to conduct a thorough investigation of any potential impacts prior to proposing a facility. Applicants must provide testimony describing any impacts under the applicable Section 248 criteria and stating the steps the applicant will take to ameliorate them. In providing such information, the state agencies charged with reviewing these projects and the members of the public affected by such construction will have an adequate opportunity to evaluate the information provided by the applicant and to participate in the review of these projects. For these reasons the Board finds that the requirements of Section 5.107 will encourage more thoughtful siting of net-metering systems and will provide adequate information to ensure the consistency of net-metering projects with the criteria of Section 248.

The Board considered whether to further simplify the requirements of Section 248 for projects that are more than 50% owned by customers who receive power from the system. The ownership structure of net-metering systems does not reduce the potential for significant impacts under the Section 248 criteria. Accordingly, the Board finds that it is not appropriate to further

simplify the requirements of Section 5.107 based solely on the ownership structure of a net-metering system. The Board observes that developers of community solar arrays can avail themselves of significant procedural and financial advantages by proposing systems located on roofs or other "preferred sites." The final proposed rule is designed to strongly encourage the development of net-metering systems in locations that have limited environmental impacts and that will not generate controversy in the communities hosting such systems.

5.108 Amendments to Pending Registrations and Applications

Summary

Section 5.108 describes how the Board will review amendments to pending CPG applications and registrations. This section is intended to streamline and clarify the process for amending net-metering registration forms or applications that have not yet been approved by the Board. This provision is also intended to reform the former practice of net-metering CPG applicants seeking "non-substantial change" determinations from the Board. All amendments to pending net-metering CPG applications must be filed as either a minor or major amendment, using the procedures specified in Section 5.108.

If the Board decides that the proposed amendments are minor in nature, an applicant is required to provide notice of such changes. Minor amendments will not substantially lengthen the review process for pending applications. If an applicant proposes an amendment that the Board finds to be major, then the applicant must withdraw the application and submit a new application.

5.109 Amendments to Approved Net-Metering CPGs

Summary

Section 5.109 describes how the Board will review proposed amendments to approved net-metering CPGs. This section is intended to streamline and clarify the process for amending net-metering CPGs that have been issued by the Board. This provision is also intended to replace the former practice of "non-substantial change" determinations. All amendments to approved net-metering projects must be filed as either a minor or major amendment, using the procedures specified in Section 5.109.

If the proposed amendments are deemed by the Board to be minor in nature, the CPG holder is required to provide notice of such changes. There will be a 10-day comment period for parties to comment on the CPG holder's characterization of the amendment as minor. If no comments are filed within the 10-day period, the minor amendment may be implemented without further action from the Board.

If a CPG holder proposes an amendment that the Board deems major, then the CPG holder must obtain prior Board authorization of the amendment by filing a complete CPG

registration or application using the applicable procedures set forth in Sections 5.105, 5.106, or 5.107.

5.110 Transfer and Abandonment of CPGs

Summary

Section 5.110 deals with two types of CPG transfers: (1) transfers involving the sale of the net-metering system together with the property upon which the net-metering system is located and (2) CPG transfers where control of the net-metering system is transferred separately without a sale of the host property. For the first type of transfer, such transfers are effective at the time the host property changes ownership, provided the new owner files the form that the Board has created for this purpose. For the second type, which typically involves larger systems located on leased land, the CPG holder must obtain Board approval prior to transferring the CPG. The Board has developed a form for this purpose as well.

Section 5.110 also deals with the abandonment of a net-metering CPG. A CPG holder must construct a net-metering system within one year of the date the CPG is issued. A CPG not used to construct the project within one year is deemed to be abandoned. The Board will grant extensions of the one-year period for good cause shown. The Board has included this provision to discourage "queue sitting" because projects are reviewed for interconnection in the order they are received. Projects may be responsible for paying for upgrades to the distribution system as a result of systems ahead of them in the queue.

Response to Comments

One comment suggested that the Board clarify how long a CPG holder has to complete any work approved in an amended CPG. The proposed rule does not specify a time period for the completion of work approved as an amendment. Therefore, no clarification is necessary.

5.111 Substantive Criteria of 30 V.S.A. § 248(b) Applicable to Net-Metering CPG Registrations and Applications

Summary

Pursuant to 30 V.S.A. § 8010, the Board may waive the requirements of 30 V.S.A. § 248(b) that are not applicable to net-metering systems. For hydroelectric systems and photovoltaic systems located on roofs, the Board has concluded it is appropriate to review such systems only for interconnection issues. All other substantive criteria of Section 248 have been conditionally waived because roof-mounted systems have little or no impact on the environment or land.

For systems not located on a roof, the Board has considered it appropriate to conditionally waive the following Section 248 criteria: (b)(4) (economic benefit), (b)(6)(least-

cost integrated plan), (b)(7) (comprehensive energy plan), (b)(9) (waste-to-energy facility), (b)(10) (existing transmission facilities), and (b)(11) (woody biomass plants). Net-metering systems either do not or are not likely to raise a significant issue with respect to these criteria.

With respect to Section 248(b)(2) (need), the Board has considered that it is appropriate to waive this criterion, provided that the renewable energy credits ("RECs") produced by the net-metering system are being transferred to the utility. In light of the state's renewable energy standards, which require that utilities procure certain amounts of renewable energy, Vermont utilities have a significant need for renewable energy, and the Board therefore finds it is appropriate to waive this criterion in reviewing facilities that supply renewable power to the system.

In contrast, Section 5.111(C) provides that if an applicant elects to retain ownership of the RECs generated by a net-metering system, then the applicant will be required to show that the project "is required to meet the need for present and future demand for service which could not otherwise be provided in a more cost-effective manner through energy conservation programs and measures and energy-efficiency and load management measures" pursuant to 30 V.S.A. § 248(b)(2). Such a showing is necessary because the net-metering facility will not be supplying renewable energy to the system. Therefore, it is appropriate to require such an applicant to demonstrate a need for the proposed facility within the meaning of 30 V.S.A. § 248(b)(2).

Response to Comments

One comment opposed the waiver of the environmental Section 248 criteria for hydroelectric systems. The environmental review of hydroelectric systems is undertaken by the Federal Energy Regulatory Commission. Pursuant to 30 V.S.A. § 248(a)(2), such facilities are exempt from Section 248. Therefore, it is appropriate to waive the environmental review of such projects as part of the net-metering application process.

5.112 Aesthetic Evaluation of Net-Metering Projects

Summary

Section 5.112 sets forth the criteria that the Board will use to evaluate the aesthetic impact of net-metering systems. Pursuant to 30 V.S.A. § 8010(c)(3)(D), in determining whether a net-metering system satisfies the aesthetics criterion contained in 30 V.S.A. § 248(b)(5), the Board is required to apply the so-called "Quechee test" as described in the case *In Re Halnon*, 174 Vt. 515 (2002) (mem.). Section 5.112 sets forth the elements of the test and also provides guidance to applicants and the public about what the Board will consider in reviewing net-metering projects under the Quechee test.

Response to Comments

One comment suggested that the setbacks delineated in Section 5.112 (F)(1) and (2) should be increased to 100 feet. The comment further recommended that the regulation should

clarify that the setbacks are measured from the property line to the outer edge of the limits of disturbance, not to the project structures. These recommendations are not consistent with the provisions of 30 V.S.A. § 248(s). The Board is permitted to impose stricter standards than those contained in the statute "on review of an application." No persuasive basis has been provided to justify the imposition of stricter standards as a rule of general applicability.

Part III: Participating in the Review of Applications for CPGs

5.113 Obtaining Information about a Net-Metering CPG Application

Summary

Act 174 of 2016 created a working group to review the processes for citizen participation in Board proceedings and to make recommendations to promote increased ease of citizen participation in these proceedings. In keeping with the spirit of Act 174 and the many proposed changes examined by the working group, the Board has endeavored to shape the revised net-metering program so as to make it easier for the public to navigate.

Part III of the rule eases the path to public engagement in Board proceedings by providing step-by-step instructions for citizens participating in the review of net-metering CPG applications. These instructions include guidance on how to submit comments, intervene, or request a hearing, and provide a description of how the Board will conduct hearings. In addition to adopting Part III, the Board will develop forms and templates to assist the public in following the procedures described therein.

Section 5.113 provides notice that persons seeking information about a net-metering CPG application may visit the web portal for the Board's online document management system, known as ePSB, or contact the Clerk of the Board.[23] Anyone will be able to use ePSB to review public documents, research the status of a case, and find out about any schedule deadlines.

5.114 Rules and Processes Applicable to the Review of Net-Metering CPG Applications

Summary

Section 5.114 makes clear that Rule 5.100 describes the relevant procedures for the review of net-metering CPG applications. This reduces the need to cross reference the general rules of practice and other procedures that otherwise would apply in Board proceedings. To the extent that any procedure is not described in Rule 5.100, such procedures are governed by the provisions of Board Rule 2.200. Where there is a conflict between the procedures described in Rule 5.100 and any other Board rule, the provisions of Rule 5.100 are controlling.

5.115 Submission of Public Comments

[23] Phase I of ePSB began accepting filings on January 17, 2017. ePSB is presently being modified to be consistent with the requirements of this final proposed rule. Until a rule is adopted, information in ePSB about net-metering applications will be limited.

Summary

Section 5.115 provides that members of the public who want to file comments on a net-metering CPG application must do so within 30 days from the date the application is determined to be administratively complete. The public will be able to see whether an application has been filed and whether the application is complete by visiting the web portal for the Board's online filing system or by contacting the Clerk of the Board. Public comments will be available for review in the Board's online filing system as well.

5.116 Party Status in Net-Metering CPG Proceedings

Summary

Section 5.116 establishes a new process for obtaining party status in net-metering CPG proceedings. Under the revised net-metering program, the majority of those potentially affected by a net-metering project will be able to become a party by filing a simple notice of intervention, as opposed to a motion to intervene pursuant to Board Rule 2.209. The Board has adopted a simple form for this purpose. This procedure is consistent with 30 V.S.A. § 248(a)(4)(I), which requires that those who have a right to appear as a party in Section 248 cases be able to obtain party status by filing a notice of intervention.

This simplified approach to intervention recognizes that these persons by definition have a substantial interest in net-metering cases whether under the standards for intervention prescribed under Board Rule 2.209(A) (intervention as of right) or under 2.209(B) (permissive intervention). Significantly, adjoining landowners can now become a party by filing a simple form and without having to file a motion to intervene that addresses all of the standards in Board Rule 2.209. The Board believes this procedure will ease the process of participation in Board proceedings.

All other persons not listed in Section 5.116(B) are required to file a motion to intervene pursuant to Board Rule 2.209. This procedure will remain unchanged from the former rule. The policy objective served by maintaining this requirement is to ensure that the parties and the Board have adequate notice of the issues sought to be raised through such intervention.

Response to Comments

The Agency of Natural Resources commented that it is a party in all Section 248 proceedings by right and therefore should have party status in all CPG cases under this rule. The Board agrees with this comment and has amended the rule accordingly.

5.117 Requests for Hearing

Summary

Section 5.117 requires requests for a hearing to be filed within 30 days of when an application is determined to be administratively complete. Requests for hearing must be filed by a party or be accompanied by a notice of intervention or motion to intervene.

5.118 Circumstances When the Board Will Conduct a Hearing

Summary

Section 5.118 sets forth the criteria by which the Board will review requests for hearings. Under the former net-metering rule, a person requesting an evidentiary hearing must first demonstrate that an application raises a "significant issue" under the criteria of Section 248 in order to be granted a hearing during the review of a net-metering application.[26] During the workshop process, participants informed the Board that this requirement was impracticable within the 30-day comment period because of the need to investigate a case and produce sufficient proof to support a hearing request.

To ease public participation in the Board's review process for net-metering projects, the Board will convene evidentiary hearings when one is requested and where the requestor has raised "one or more substantive issues under the applicable Section 248 criteria; or a substantive issue that is within the Board's jurisdiction to resolve."

5.119 Prehearing Conferences and Status Conferences

Summary

Section 5.119 provides that in cases where the Board has granted an evidentiary hearing request, a prehearing conference will be convened in advance of that hearing. The prehearing conference will provide an opportunity for the parties to meet for the purpose of clarifying the issues to be addressed at the evidentiary hearing, discuss evidentiary matters, explore settlement, and develop a schedule for the proceeding. The Board will also conduct status conferences when such conferences will help move the case towards resolution. Prehearing conferences and status conferences may be conducted telephonically to eliminate the burden of traveling to the Board's offices in Montpelier for such conferences.

Response to Comments

One comment suggested revisions to the text of this section to refer to both prehearing and status conferences. In response to this comment, the Board has altered the text to clarify that status conferences will be held "as necessary."

26. Board Rule 5.110(B)(4).

One comment suggested renaming "prehearing conferences" as "preliminary" or "scheduling conferences." The Board's general rules of practice refer to such conferences as prehearing conferences, and introducing new terminology for an identical procedural step would be confusing to those reading the Board's rules. Therefore, the Board has not adopted this proposal.

5.120 Discovery

Summary

Section 5.120 provides that in cases where an evidentiary hearing will be held, parties may engage in limited discovery consisting of serving 20 questions on other parties. In complex cases, parties may request additional discovery for good cause shown.

Response to Comments

One comment objected to the limitation of 20 interrogatories. The comment asserts that in so limiting discovery, the Board has eliminated depositions, requests to admit, and requests for documents. In response to this comment, the Board has revised the rule to clarify that requests for documents and requests to admit are permitted, subject to the 20-question limit. The purpose of this provision is to simplify the application process as appropriate. Parties may request additional discovery where the needs of the case justify such additional process.

5.121 Procedure for Hearings

Summary

Section 5.121 describes the procedure for conducting an evidentiary hearing. This section is intended to provide the public with plain language descriptions of each of the procedural steps that usually occur during an evidentiary hearing. The purpose of evidentiary hearings is to compile the official record of the case in accordance with the requirements of 3 V.S.A. 809(c). Parties will have an opportunity to cross-examine witnesses at evidentiary hearings.

5.122 Decisions

Summary

Section 5.122 states that after the evidentiary hearing and the filing of any briefs, the Board will issue a decision. This section makes clear that in cases where the Board has not heard the case or read the record, a proposal for decision will be issued for comment by the parties. This procedure is a continuation of the Board's practice and is consistent with the requirements of 3 V.S.A. § 811.

5.123 Appeals of Board Decisions

Summary

The purpose of this section is to provide notice to participants that Board orders are subject to review by the Supreme Court of Vermont.

Part IV: The Net-Metering Program

5.124 Pre-Existing Net-Metering Systems

Summary

Section 5.124 exempts pre-existing net-metering systems from certain portions of the new net-metering rule. This section also provides that pre-existing net-metering customers will continue to qualify for the solar adder provided for in Section 219. This provision is established pursuant to Section 10 of Act 99, which states that pre-existing net-metering systems shall continue to qualify for a period of 10 years for certain incentives that were provided for under previous state law. At the conclusion of this 10-year period, pre-existing systems will receive the blended retail rate for excess generation.

Response to Comments

One comment recommended that the Board replace the word "existed" Section 5.124(B) with the phrase "was in effect" to eliminate any ambiguity as to which version of the regulations would apply to the review of pre-existing systems. This proposed revision has been made.

Several commenters requested that Section 5.124(C) be amended to clarify what rate would be applicable to pre-existing systems after such systems stop receiving the incentive provided to pre-existing systems. The Board has amended this section to make clear that at the conclusion of the 10-year period, pre-existing systems will be credited for excess generation at the blended residential rate.

It was recommended that Section 5.124(C) specify that the incentive paid to pre-existing systems that are subject to inclining block rates be calculated using the highest block in the electric company's rate schedule. This change has been made because it reflects how the incentive provided in Section 219a(h)(1)(A) was calculated under the previous net-metering rule.

Several comments urged the Board to revise Section 5.124(H) of the proposed rule because it might allow pre-existing systems to receive the incentives provided for in the rule after having received the incentives provided for under Section 219a(h)(1)(A). Other comments suggested that causing pre-existing systems to lose their pre-existing status because of a major amendment would discourage homeowners from expanding their systems to accommodate electric vehicles in the future. The Board has removed this language from the final proposed rule in response to these comments. Pre-existing systems will not lose their pre-existing status

because of a major amendment. However, a CPG amendment will not extend the 10-year period during which a pre-existing system will receive the incentive provided for in Section 219a(h)(1)(A).

5.125 Energy Measurement for Net-Metering Systems

Summary

Section 5.125 describes the method for measuring energy produced by a net-metering system, how to convert that energy into monetary credits, and how to apply those credits to a customer's bill. This calculation will differ based on whether the net-metering system is an individual system or a group system. Additionally, this section contemplates two scenarios for the configuration of the production meter, the customer's billing meter, and the net-metering system: (1) systems where the net-metering system and production meter are "behind" the consumption meter, and (2) systems where the net-metering system and production meter are separate from the customer's billing meter. In the case of number (2), this scenario is common for group net-metering arrangements or community solar arrays, where the net-metering system is located somewhere other than on the customer's property. To facilitate the application of the siting and REC adjustors, new net-metering customers will be required to install a meter to measure the production of the net-metering system (a "production meter").

Response to Comments

One comment opposed the requirement to install a production meter because Act 99 did not require production meters. Nothing in Act 99 prohibits such meters, however, and production meters have been standard practice for net-metering systems installed in Vermont since the introduction of incentive payments provided pursuant to 30 V.S.A. § 219a(h)(1)(a). The siting and REC adjustors provided in the final proposed rule are important policy tools that are necessary to incentivize the beneficial siting of net-metering systems and to ensure that the value of RECs is reflected in the compensation provided to net-metering customers. Without a production meter, the electric company would only be able to determine the excess generation, or net consumption of a net-metering customer. The rate adjustors would not provide effective incentives or disincentives to customers if the adjustors were only applied to excess generation. Therefore the Board has not removed the requirement to install a production meter.

One group administrator requested that Section 5.125(A)(3)(a)(ii) be altered to allow pre-existing net-metering groups to employ a stacked or waterfall allocation method. In response to this comment, the Board has removed the language from this section requiring allocation based on percentages. However, the Board will not require an electric company to use a particular allocation method if it will cause the company to incur unreasonable costs or administrative burdens.

One electric company requested that Section 5.125(A)(3)(a)(ii) be revised to state that "charges and credits" are netted at the generation account level and that excess credits are then allocated to group members in the manner requested by the group administrator. Additionally

the company requested the flexibility to bill only the generation account for any "excess charges." The company stated that allocating these charges and credits individually to the group members would create an unworkably complicated billing process. In response to this comment, the Board has added language to Section 5.125 permitting electric companies to propose for Board approval alternative energy measurement methods for group systems, provided such methods do not displace any of the applicable credits and charges specified in the rule. The Board has included this new provision because the Board recognizes that each utility's billing software is unique and represents a significant investment for the utility. This new language does not authorize any electric company to adopt any billing mechanism that would result in a customer being credited for generation at rates that are different from those provided in this rule.

One net-metering customer stated that Section 5.125 discriminates between systems that are wired "behind the meter." The comment stated that customers who are billed at a retail rate that is less than the blended residential rate will receive less value for their net-metering generation than a similarly situated customer whose system is wired separately from the billing meter. The Board has considered these comments and responds that the energy measurement provisions of the rule implement the same method of energy measurement that was used under the prior rule. The Board does not have enough information about how changing the rule in the manner proposed by the comment would affect the billing process of electric companies. A significant number of customers' net-metering systems are "behind the meter." Therefore, the Board has not changed the rule in the manner requested by the comment because such changes may have significant unforeseen consequences.

5.126 Determination of Applicable Rates and Adjustors

Summary

Section 5.126 sets forth the applicable rates and adjustors that are the constituent parts of a net-metering credit. This section is adopted pursuant to 30 V.S.A. § 8010(c)(1)(A)-(G) and (c)(2)(F). The value of a credit is the sum of: (1) the applicable blended residential retail rate, (2) any applicable REC adjustor, and (3) any applicable siting adjustor.

The applicable blended residential retail rate is the lowest of three possible rates: (1) if the electric company does not have block pricing, the company's general retail rate, (2) if an electric company uses block pricing, then a blend of those rates, or (3) the weighted average of the blended residential rates for all Vermont electric companies.

Section 5.126(B) establishes the initial values for REC adjustors and siting adjustors. The Board has established REC adjustors in order to implement the requirements of 30 V.S.A. § 8010(c)(1)(A),(C), (F), and (H)(1). Adjustors allow the Board to encourage and discourage certain behaviors through monetary incentives and to adjust the overall value of net-metering credits.

The REC adjustors will encourage net-metering customers to transfer the RECs generated by their systems to their electric company, which will enable these RECs to be counted towards

Vermont's renewable energy standards.[24] This will support the state's goal to "reduce emissions of greenhouse gases from within the geographical boundaries of the state and those emissions outside the boundaries of the state that are caused by the use of energy in Vermont."[25] To the extent that net-metering customers elect to retain and sell their RECs out of state, these systems do not generate energy that is renewable and therefore do not contribute to the state's greenhouse gas reduction goals because the greenhouse gas reductions may be claimed in other states.

REC adjustors implement 30 V.S.A. § 8010(c)(1)(H)(1), which requires the Board to reduce the value of the customer's net-metering credits if the customer retains RECs.

Section 5.126(C) sets the initial value for "siting adjustors." Siting adjustors are intended to encourage net-metering customers to select more environmentally friendly sites for new net-metering systems. Siting adjustors differentiate between systems based on the size of the system to reflect the economies of scale attendant to larger systems. Finally, the siting adjustors allow for the paced the development of net-metering systems over time. The value of each of the siting adjustors was also set so that the total cost of net-metered power is closer to that of other sources of renewable energy, while at the same time still providing some economic incentive to construct net-metering systems. These values may be adjusted for new systems through the biennial update process. Figure 4 provides an example of how siting and rate adjustors affect the overall credit offered to net-metering systems. These examples assume the customer transfers RECs to the electric company and therefore receives a positive REC adjustor.

Figure 4. All values are in cents.

Type of Net-Metering System	Blended Residential Rate	Siting Adjustor	Positive REC Adjustor	Total
Category I (up to 15 kW)	14.9	1	3	18.9
Category II (15 to 150 kW on preferred site)	14.9	0	3	17.9
Category III (15 to 150 kW on non-preferred site)	14.9	(-1)	3	16.9
Category IV (over 150 kW on preferred site)	14.9	(-3)	3	14.9

Pre-existing net-metering customers will continue to receive any incentive that system received pursuant to 30 V.S.A. § 219a(h)(1)(K) for a period of 10 years after a system was commissioned. After that period, the value of a credit received by a pre-existing net-metering customer will be the blended residential rate. Pre-existing customers will not be subject to any siting or REC adjustors.

Response to Comments

[24] *See*, 30 V.S.A. § 8005.
[25] 10 V.S.A. § 578.

Advocates for solar energy firms that construct net-metering systems submitted significant comment on the rates provided for in Section 5.126. Several comments objected to the use of negative siting and REC adjustors. Some commenters objected to the use of the blended residential rate as opposed to utility-specific rates. Other participants objected to the duration of time that REC adjustors will be applied to customers' bills. These comments assert that net-metering customers should receive credit from RECs for the life of the system and that it is unfair that negative adjustors apply in perpetuity.

The Board has carefully considered these comments and has concluded that no changes to the proposed rule are appropriate. The Board has established REC adjustors in order to implement the requirements of Section 8010(c)(1)(A),(C), (F), and (H)(1). The REC adjustors will encourage net-metering customers to transfer the RECs created by their systems to their utility, which will enable these RECs to be counted towards Vermont's renewable energy standards.[26] This is so that the energy produced by net-metering systems can be counted as renewable in Vermont and thereby support the state's goal to "reduce emissions of greenhouse gases from within the geographical boundaries of the state and those emissions outside the boundaries of the state that are caused by the use of energy in Vermont."[27] To the extent that net-metering customers elect to retain and sell their RECs out of state, these systems do not contribute to the state's greenhouse gas reduction goals because the greenhouse gas reductions may be claimed in other states.

REC adjustors also implement the requirements of Section 8010(c)(1)(D), which requires that the revised net-metering program account for the costs and benefits of net-metering. RECs have economic value to customers and to utilities. Under Section 8010(c)(1)(H)(ii), a utility must use net-metering RECs to meet that utility's statutory obligation under Vermont's renewable energy standards. To the extent the utility does not obtain sufficient RECs, the utility must purchase RECs from the market or build new plants that produce RECs. These are costs that utilities will incur and pass on to ratepayers. Customers can likewise sell a REC in the market, or the customer can retire the REC and thereby claim that the power that the customer consumed was renewable, both of which provide a benefit to the customer. Under Section 219a, net-metering customers received the same amount of credit for the power produced by a net-metering system whether they provided the RECs to their utility or not. This outcome is unjust because it fails to accurately account for the characteristics of the energy provided to the system. As a matter of public policy, net-metering customers who transfer RECs to their utility and therefore support compliance with Vermont's renewable energy standards should be compensated at a higher rate because they have forgone personal benefits to support a public policy good. In comparison, net-metering customers who elect to retain RECs are making a choice to keep the value of those benefits for themselves and should be compensated accordingly.

Finally, REC adjustors implement Section 8010(c)(1)(H)(1), which requires the Board to reduce the value of the customer's net-metering credits if the customer retains RECs. This provision of the statute is not discretionary. The Board has chosen to set the values of the REC adjustors as positive (+3) cents per kWh for customers who transfer RECs to their utility and

[26] *See*, 30 V.S.A. § 8005.
[27] 10 V.S.A. § 578.

negative (-3) cents per kWh for customers who do not.[28] The net effect of the REC adjustors is that there is a 6-cent difference between the total compensation received by customers who chose to retain RECs and customers who elect to transfer RECs. The Board chose the initial REC adjustor values because they reflect the "alternative compliance price" or "ACP" for Tier II RECs created by Vermont's renewable energy standard statute.[29] Tier II is the "distributed generation" tier that includes net-metering systems. The 6-cent ACP is the price that a utility would pay if it were unable to comply with the renewable energy standard.

Some comments have suggested that the initial value of the REC adjustor is "punitive" and instead should reflect "the market price for New England Class 1 RECs." This idea was considered, but the Board decided not to select this approach. As described above, the Board chose the initial REC adjustor values to reflect Vermont's ACP and to provide a strong incentive for net-metering customers to transfer their RECs to utilities so that these RECs would be retired in support of Vermont's renewable energy standards.[30] Furthermore, where a net-metering customer chooses to retain RECs, that customer is supplying its utility with non-renewable energy. Accordingly, the Board does not believe it is appropriate to require utilities to account for such non-renewable power at the blended retail rate, which is significantly above the wholesale cost of power.

The Board chose the 10-year period for positive REC adjustors as an incentive for customers to transfer RECs to their electric company so that energy generated by net-metering systems will count towards compliance with Vermont's renewable energy standard. However, the sum of the blended retail rate and the positive REC adjustor is significantly greater than that cost of alternative sources of renewable energy. For example, using the statewide average residential rate plus 3 cents equals 17.9 cents per kWh, which exceeds the estimated value of this power. Therefore, the Board finds that it would not be in the public interest for ratepayers to bear these costs for longer than is necessary to provide net-metering customers sufficient incentive to promote the policy objectives that the REC adjuster is designed to accomplish.

Likewise, negative REC adjustors also encourage customers to transfer their RECs to their electric company. Therefore, it is appropriate to apply any negative REC adjustor in perpetuity because otherwise a customer retaining RECs would eventually receive a financial windfall at the expense of ratepayers.

Section 5.126(C) sets the initial value for "siting adjustors." Some comments opposed the use of negative adjustors or requested that the Board adopt higher values for community solar. Siting adjustors are intended to encourage net-metering customers to select more environmentally friendly sites for new net-metering systems. The siting adjustors contained in the rule differentiate between systems based on the size of the system to reflect the economies of scale attendant to larger systems. Finally, the siting adjustors help to pace the development of net-metering systems over time. The values of the siting adjustors have been set to reflect

[28] This 3-cent credit is added to the applicable blended retail rate of electricity. For example, if a customer's general service rate is 17 cents per kWh of electricity and the blended residential rate is 15 cents, this customer would receive 18 cents (15 +3) for each kWh produced by that customer's net-metering system.
[29] 30 V.S.A. § 8005(a)(4)(A)(ii).
[30] Section 5.126(B)(1).

consideration of two critical policy considerations: (1) keeping the cost of net-metering power reasonably close to its estimated value and (2) ensuring that the cost of net-metering does not greatly exceed the costs of alternative sources of renewable energy. In the case of projects that are sited in preferred sites, the rate of compensation to net-metering systems likely exceeds the value of the power they provide. However, this subsidy is limited to 10 years and is an appropriate incentive to encourage the construction of renewable energy in beneficial locations.

In conclusion, the Board reiterates that the net-metering program is a voluntary program that offers retail customers distinct economic advantages, namely the ability to receive credit for electricity at above wholesale market rates. Electric generators who wish to receive compensation for RECs for the life of the generation system may enter the regional wholesale market, participate in state renewable programs such as the standard-offer program, or obtain a mandatory contract pursuant to Board Rule 4.100. The REC and siting adjustors set forth in the final proposed rule are reasonable conditions of participating in the net-metering program that are necessary to achieve important state policy goals, including the beneficial siting of net-metering systems and reducing the state's greenhouse gas emissions, while taking into consideration the impacts on rates. For these reasons, the Board has retained the adjustor provisions contained in the proposed rule.

5.127 Biennial Update Proceedings

Summary

This section establishes a biennial process by which the Board will review the values of the REC adjustors, siting adjustors, the statewide blended residential rate, and the criteria applicable to different categories of net-metering systems. This section is established pursuant to 30 V.S.A. § 8010(c)(1)(B)-(H). By revisiting the initial values of the REC and siting adjustors established in this program, the Board can ensure that: (1) the pace of deployment of net-metering systems is consistent with the state's renewable energy goals, (2) net-metering does not result in undue rate impacts, (3) the program accounts for changes in costs of technology over time, and (4) net-metering does not result in cost shifts between net-metering customers and non-net-metering customers.

5.128 Billing Standards and Procedures

Summary

Section 5.128 establishes the billing standards and procedures for net-metering. This section describes the respective duties of retail electricity providers and net-metering customers, pursuant to Section 8010(c)(2)(C).

Section 5.128(A) lists the items that an electric company must show on a customer's bill.

Section 5.128(B) provides that accumulated net-metering credits revert to the electric company if such credits are not used within 12 months.

Section 5.128(C) limits net-metering customers to enrolling their accounts in only one net-metering group arrangement at a time. This provision is necessary to prevent unduly complicated billing arrangements.

Section 5.128(D)(1) limits the total amount of net-metering credit that any single customer may receive. This section provides: "The cumulative capacity of net-metering systems allocated to a single customer may not exceed 500 kW. For example, a customer who has two accounts cannot have each account receive more than 50% of the output from two 500 kW net-metering systems because the cumulative capacity of the allocated share of those net-metering systems would exceed 500 kW."

Section 5.128(E) permits, subject to Board approval, a net-metering group to receive power from more than one net-metering system. However, the cumulative capacity of net-metering systems attributed to a group may not exceed 500 kW. This provision is consistent with Section 5.128(D).

Section 5.128 (F) permits a net-metering group to allocate power produced by the group's net-metering system among members of the group.

Response to Comments

Several comments opposed the 500 kW customer cap. These comments stated that large institutions or municipalities should be able to offset all of their power consumption if they wish. Other comments recommended that this limitation be applied to individual customer accounts, as opposed to customers.

The net-metering program is intended to offer utility customers financial incentives to develop new, small-scale renewable energy resources. Renewable energy acquired through the net-metering program costs more than alternative sources of renewable energy.[31] Therefore, the net-metering program has an important, but limited, role to play in realizing the state's renewable energy goals. Large customers should not be permitted to leverage the incentives offered by the net-metering program to deploy fleets of net-metering systems to offset their own significant power costs at the expense of other ratepayers. If a customer wishes to generate more than 500 kW of power for its own use, it may do so by means other than net-metering. For example, such large customers may self-supply energy without net-metering.[32] Alternatively, if a large customer wants to be able to claim that its electricity consumption is sourced from renewable resources, it may either buy RECs on the market or participate in its electric company's green power pricing program, if available.

[31] Under the net-metering program, customers who construct a 500 kW net-metering system are eligible to receive up to 16.9 cents per kWh of energy produced. This exceeds current market prices for renewable energy from other sources. *See e.g., Petition of GMPSolar - Hartford LLC*, Docket 8580, Order of 6/3/16, at 8 (finding that the 5 MW solar project would have an estimated levelized cost of energy of 12.8 cents per kWh).

[32] 30 V.S.A. § 248(a)(2) (exempting from review under Section 248 "electric generation facilities that are operated solely for on-site electricity consumption by the owner of those facilities.").

State law directs the Board to consider the rate impacts of net-metering and to "ensure that all customers who want to participate in net-metering have the opportunity to do so."[33] The Board recognizes that the net-metering program provides benefits to the state through increased economic development and jobs, but these benefits must be balanced against the costs of offering the program. This balancing necessitates that there be limits to the amount of incentives any single customer can avail itself of in order to ensure that all customers can participate in net-metering without creating undue rate impacts. Accordingly, the 500 kW per customer limitation contained in Section 5.128(D) is one of several policies adopted by the Board to "right-size" the net-metering program for Vermont and to balance the various costs and benefits of the program. For these reasons, the Board has not altered the provisions concerning the 500 kW customer limit as requested in some comments.

Another issue raised in several comments is the prohibition against transfers of credits provided in Section 5.128(B). Net-metering customers may still share credits with members of their group according to the allocation established by the group administrator. These allocations may be changed on a prospective basis if the needs of a group change. Section 5.128(B) prohibits a customer from requesting that the electric company distribute credits to other customers on an ad hoc basis. The reason for this prohibition is because such requests are an administrative burden. Additionally, allowing customers to transfer accumulated credits potentially circumvents the purpose of expiring credits after 12 months. Net-metering customers should not routinely generate more electricity than they consume. State law provides that a net-metering system is intended primarily to offset a customer's consumption. This prohibition is consistent with state law and will discourage net-metering customers from generating more power than they consume.

5.129 Group System Requirements

Section 5.129 implements 30 V.S.A. § 8010(c)(2)(E) by establishing the requirements to form a net-metering group. This section is substantially similar to the requirements that were previously contained in 30 V.S.A. § 219a, except that this information need only be provided to the electric company and not to the Board.

5.130 Interconnection Requirements

Section 5.130 establishes that the interconnection of all net-metering systems shall be governed by Board Rule 5.500. The section also requires that the applicant will bear the costs of all equipment necessary to interconnect the net-metering system to the distribution grid and any distribution system upgrades necessary to ensure system stability and reliability.

5.131 Disconnection of a Net-Metering System

Section 5.131 governs the disconnection of a net-metering system from the electrical system. These procedures apply to net-metering systems only and do not supplant Board Rules 3.300 and 3.400 relating to company disconnection in general.

[33] 30 V.S.A. §§ 8020(c)(1)(C) and (E).

5.132 Electric Company Requirements

Summary

Section 5.132 sets forth the obligations of electric companies under the net-metering program. Electric companies must offer net-metering to customers on a first come, first served basis, as determined by the date a net-metering customer files a complete interconnection application. Electric companies may require certain terms of service, such as account establishment fees, and may recover reasonable costs of system upgrades necessary to safely interconnect a net-metering customer. Additionally, electric companies may require high-use customers to undertake an efficiency audit as part of enrolling in the net-metering program.

Response to Comments

Throughout this rulemaking process, several electric companies have urged the Board to include some type of cap on the total amount of net-metering capacity permitted under the Rule. The Board has decided not to include an annual statewide or utility-specific cap in the net-metering program. While the Board strongly believes that a mechanism to avoid undue rate impacts is necessary, the Board is persuaded that the biennial update process can accomplish this function. Specifically, Section 5.127(I) allows the Board to conduct an update sooner than biennially at its own discretion or upon petition by the Department. The Board will initiate a proceeding if the pace of development is excessive. Given the new requirement that large net-metering systems be located in preferred sites, the Board anticipates that the pace of development will be more controlled than it has been in the past few years.[34] Accordingly, the Board has not included an annual capacity cap in the net-metering program.

One comment urged the Board to ensure that the interconnection and administrative fees assessed pursuant to Section 5.132 are no greater than the utility's actual cost associated with providing the service to the interconnecting customer and to ensure that unjust and discriminatory fees are not assessed against net-metering customers. The Board responds that all fees assessed pursuant to this rule must be set forth in a tariff that is subject to Board approval. Pursuant to 30 V.S.A. § 225, the Board must find that all rates are just and reasonable. Traditionally, rates are only just and reasonable when based on known and measurable costs.

An electric company requested that any fees adopted pursuant to Section 5.132(A) be defined as "non-bypassable." The Board has not adopted this proposed change. As part of its net-metering tariff, an electric company is able to propose for Board approval a schedule of fees that are designated as non-bypassable. The Board will only approve such proposals if the electric company can demonstrate that it is just and reasonable for such fees to be non-bypassable.

One comment requested that the Board require electric companies to provide net-metering group administrators a "full accounting" of a group's credits. The Board has

[34] For example, a significant portion of the approved net-metering capacity is comprised of 500 kW systems. Many of these large projects would not qualify for the net-metering program under the final proposed rule because they were not located on preferred sites.

considered this comment and decided not to include such a requirement in the rule. While the comment states that such information exists, it has not been demonstrated that providing group accountings would not impose an additional administrative burden on electric companies.

5.133 Electric Company Tariffs

Summary

Section 5.133 requires an electric company to file for Board approval a rate schedule to implement the net-metering program described in the rule within 60 days of the adoption of the rule. An electric company may request additional time to implement any provision of the rule for good cause shown.

Part V: Compliance Proceedings

5.134 Compliance Proceedings

Summary

Section 5.134 establishes procedures for ensuring that a net-metering system is constructed and operated in compliance with the terms of its CPG, this rule, and any other applicable law within the Board's jurisdiction to enforce. When a complaint is filed, the Board will refer the complaint to the Department of Public Service for investigation. The Board will also provide a copy of the complaint to the CPG holder and require a response. The Department will have an opportunity to make a recommendation to the Board as to whether a compliance proceeding should be initiated. After reviewing the complaint, any recommendation from the Department, and any response from the CPG holder, the Board may take any of the steps described in Section 5.134(B) if it determines there is good cause to do so. If the Board determines that there is not good cause to initiate a compliance proceeding, then the Board will communicate that fact to the complainant and CPG holder and take no further steps in response to the complaint.