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February 6, 2017

Legislative Committee on Administrative Rules
State House
Montpelier, Vermont

Subject: Rule 5.100 Pertaining to Construction and Operation of Net Metering Systems (January 20, 2017)

Dear Members of the Committee:

Thank you for the opportunity to comment on this rule. I am the owner of an individual, roof-mounted solar net metering system installed in 2011. I have been participating actively and continuously in the development of this rule (and in the development of the statute requiring the rule). My intent has been to remind the Public Service Board that the rule needs to support small, individual net metering systems.

Introduction

This morning I plan to convince you to object to this rule because net metering allows only one meter and that requiring a second meter (a production meter) exceeds the authority delegated to the Public Service Board and is contrary to the intent of the legislature.

If I can convince you of that, then adjustors applied to total production will have to become an option for someone who net meters or the adjustors will be altered to apply only to the net production.

I also plan to convince you that the spread of 6 ¢ per kWh is not supported by the economic impact analysis and should be reduced. The economic impact analysis supports a spread of 3 ¢ per kWh.

I believe that the proposed final rule is fundamentally flawed because it inappropriately joins two programs: net metering and the solar production credit. By joining the two programs into one, the rule will not comply with the statutory definition and will not allow all who wish to participate in net metering to do so.

What net metering is

I'll start with this basic issue so that we all have a common understanding of what net metering is.

Statute defines net metering as "measuring the difference between the electricity supplied to a customer and the electricity fed back by the customer's net metering system during the customer's billing period:

"(A) using a single, non-demand meter or such other meter that would otherwise be applicable to the customer's usage but for the use of net metering; or

"(B) if the system serves more than one customer, using multiple meters. The calculation shall be made by converting all meters to a non-demand, non-time-of-day meter, and equalizing them to the tariffed kWh rate." (This definition is at 30 V.S.A. §8002(15) The underlined portion has remained unchanged since the beginning of net metering.). Part B was added when net metering expanded to include farm systems and was amended thrice to reach this form.

The key concept in the definition of net metering is that net metering is accomplished with only one meter for a system that serves only one customer. That is the meter which determines the net

consumption of electricity. Yet the proposed final rule will require two meters for a system serving only one customer to qualify for net metering. Group systems, however, are allowed to have multiple meters.

The history of this definition shows that the legislative intent is for only one meter to be required. The net metering program was established in 1997. Since then, the program has been amended nine times. Net metering initially was limited to individual systems no larger than 15 kW. The amendments expanded the program by adding farm systems and group systems, and by increasing the capacity to 500 kW. The definition of net metering has been amended four times. Yet through all of those amendments, the basic definition of net metering has remained unchanged. For a non-farm, non-group system, the definition has always been limited to one meter. That is the meter that every electric customer has, whether that customer has a net metering system or not. Multiple meters were only required by this definition for farm or group systems. If an individual system is required to have more than one meter, that is not net metering.

Why the solar production credit was not and is not net metering

Many people mistakenly consider the solar production credit to be part of net metering. But the credit is not part of net metering. Rather, the credit is an optional program that exists alongside net metering.

I present this to show that the solar production credit was not net metering. Thus, it only can be carried into this rule if it is justified by statute. First, this section shows that the solar production credit was never a part of net metering. Then the next section shows that statute neither authorizes nor anticipates use of adjustors in the manner presented in the rule.

The solar production credit was not a part of net metering. That is shown by.

- the history of the definition of net metering
- the repeal of the statutory requirement for utilities to offer a production credit
- Green Mountain Power's tariffs approved by the Public Service Board
- the Public Service Board's rule 5.100.

Requiring a production meter exceeds the authority delegated to the Public Service Board and is contrary to the intent of the legislature.

When the statute was amended to allow solar net metering systems to receive a solar production credit (the solar adder), the definition of net metering did not change. It was still one meter for an individual system with multiple meters for group systems. Three subsequent amendments of the statute and two amendments of the definition of net metering later, the definition still does not require net metering to use a production meter. Those amendments include the final amendment creating the net metering program this rule will be implementing. That final amendment also removed the requirement that utilities offer a solar production credit.

The legislative intent seems clear to me: the solar production credit (with the production meter required to determine that credit) is not part of net metering and is an option for net metering customers. That is because the legislature always left the definition at one meter for non-group systems through all of the changes in the net metering program. If legislative intent was for the production credit to be part of the net metering program, the general assembly had multiple opportunities to amend the definition of net metering to require a second meter. The general assembly never did require a second meter for individual systems.

The statutory requirement that utilities offer a solar production credit was repealed on January 1 of this year. So statute no longer requires or authorizes a solar production credit or a production credit of any

kind.

Green Mountain Power's tariffs show that the solar production credit was optional for the customer.

Green Mountain Power's first tariff after the requirement to offer a solar production credit was ". . . a customer that owns and operates a photovoltaic net metered system which is an eligible system and that pays to set up an additional Company-supplied meter to measure the output of energy generated by such Customer's photovoltaic system shall be entitled to an additional \$0.06 per kWh regardless of the underlying rate." The key phrase here is "and that pays to set up an additional Company-supplied meter". The tariff did not require that a customer pay to set up an additional meter. If the customer did not pay for the additional meter, then the customer got no credit. Nor did the customer lose eligibility in the net metering program by not installing the additional meter. The Public Service Board approved the tariff, making it effective on August 8, 2011. So by approving this tariff, the Board agreed that the production meter was optional.

Two later tariffs from Green Mountain Power, effective January 1, 2015 and April 1, 2016, also show that installing a production meter and receiving the solar production credit was optional. "Individual or group net metered systems that own and operate a photovoltaic net metered system which is eligible for net metering under Rule 5.100 shall be entitled to a credit for all metered gross kWh generated by the photovoltaic net metering system." There are two key phrases here. One is "shall be entitled to a credit". Use of the word "entitled" is what makes the solar production credit optional in this tariff. If the production credit were required, the phrase would have been something like "shall receive a credit". The other key phrase is "eligible for net metering under Rule 5.100". The Rule 5.100 in effect then did not make the solar production credit part of net metering.

The Public Service Board's own rule 5.100 showed that the production meter and the solar production credit have not been part of net metering. The rule defines a production meter and requires it only for customers whose billing meter is a demand meter or a time-of-use meter. (These are at 5.102 (O) and 5.105 (C) and (E).) Rule 5.104 Energy Measurement for Net Metering Systems does not cover measurement by a production meter.) These references are to the revision of January 27, 2014, which is still in effect for applications filed through December 31, 2016.

This section has shown that the solar production credit was not a part of net metering. Thus the adjustors, a form of production credits, cannot be carried into the new rule without some other justification. The next section will show that placing any production credit into the new rule is not justified by statute.

Why mandatory adjustors are to be applied to the net and not to the total production

This rule will convert the previous optional solar production credit into a required series of adjustors. As shown above, the solar production credit was an optional program that existed alongside the net metering program. This section shows that there is no statutory basis for requiring the proposed system of adjustors.

The proposed final rule applies the adjustors to the total production as measured by a production meter. Yet that is contrary to the statute which directs the public service board to create this rule. By applying adjustors to the total production, the Public Service Board has exceeded its authority and the rule is contrary to the intent of the legislature. In addition the spread in the adjustors for renewable energy credits is not supported by the economic impact statement.

The definition of not metering does not allow requiring a production meter for an individual net metering system.

Statute requires that credits be assigned to net excess electricity. The statute says nothing about applying credits to total production. According to statute "The rules shall include provisions that govern . . . the amount of the credit to be assigned to each kWh of electricity generated by a net metering customer in excess of the electricity supplied by the interconnecting provider to the customer". (§ 8010 (c)(2)(F)). This means that these credits must be applied based on the billing meter, because the billing meter is the one that measures the amount of electricity generated in excess of that supplied. This also fits well with the general assembly's unchanging definition of net metering as using one meter. Because only one meter is needed for net metering, then that one meter must be the basis for the types of adjustors used in the rule. The proposed final rule does define the credit to be applied to the excess generation in 5.125(A)(2)(a)(ii) and (3)(a)(ii).

Statute also requires that "if the customer retains the attributes, reduces the value of the credit provided under this section for electricity generated by the customer's net metering system by an appropriate amount". (§8010(c)(1)(H)(i)). The attributes mentioned here are the environmental attributes which include the renewable energy credits. This means that the reduction in credit for retaining the environmental attributes is applied to the net and not to the total. That is because the only applicable credit in "this section" is the one in subsection 8010 (c)(2)(F), based on excess net generation. The statute does not do this, rather it applies a reduction to the total production and not the net.

The net metering program is defined by §§8002 and 8010. I find nothing in either of those sections that either anticipates or authorizes the creation of adjustors to be applied to total production. On the contrary, the removal of the requirement for utilities to offer a solar production credit is an indicator of legislative intent to do away with production credits.

Making production meters optional, or eliminating them altogether, will comply with the requirement that "The rules establish and maintain a net metering program that . . . ensures that all customers who want to participate in net metering have the opportunity to do so" (§8010 (c)(1)(E)) Requiring a production meter under the terms in the proposed final rule will take away that opportunity for some customers. Those are the customers who want to take part in net metering and do not want to participate in the system of adjustors. It seems inappropriate to require a person who wants to participate in net metering to participate also in a different program (adjustors) which is neither required nor authorized by statute. So those customers will then be able to participate in net metering without having to participate in the separate adjustor program.

The Public Service Board failed to describe the alternative approaches it considered that led to requiring a production meter. The Board is required to describe the alternative approaches to net metering that it considered in the report it submitted along with the proposed final rule. That report fails to describe any alternatives with an optional production meter or with no production meter. And of course that report does not indicate whether these alternatives were even considered or, if they were, why rejected.

The difference in the adjustors for renewable energy credits is set at 6 ¢ per kWh by the proposed final rule. That amount is twice as high as the 3 ¢ spread that is used in the economic impact statement. The spread is the difference between retaining the renewable energy credits and transferring them to the utility.. The economic impact statement states that the replacement cost to utilities for renewable energy credits is 3 ¢ per kWh. (page 4, 5th line). So the economic impact statement supports a spread of 3 ¢. Thus the spread of 6 ¢ in the rule is not supported by the economic impact statement.

For these reasons, any mandatory adjustors or credits need to be applied to the net excess generation and not to total production. Also the values need to be re-evaluated. It is not clear to me if optional adjustors might be permitted.

Thus, requiring a production meter and applying mandatory adjustors to total production exceed the authority delegated to the Public Service Board and are contrary to the intent of the legislature. In addition the selection of a 6 ¢ spread for the adjustors for renewable energy credits is not supported by the economic impact statement.

Conclusion

I have shown the following in this testimony.

- The definition of net metering has been consistent over the years. Net metering of individual systems is to be accomplished with only one meter. More than one meter is allowed only for group systems.
- That means that the rule may not require a production meter for an individual system.
- Statute does not allow for adjustors based on total production by a net metering system.
- The rule will not allow all who wish to take part in net metering to do so.
- The spread of 6 ¢ per kWh for the renewable energy credit adjustors is not supported by the economic impact statement.

I hope that my testimony has been convincing enough that you will object to the proposed final rule on the following grounds.

The proposed final rule exceeds the authority delegated to the Public Service Board and is contrary to the intent of the legislature by

- requiring a production meter for an individual net metering system
- applying adjustors to total production rather than the net
- requiring customers who want to net meter to take part in the adjustor program which is not net metering
- failing to describe in its report to the five committees alternatives to the mandatory adjustor program.

The proposed final rule is not supported by the economic impact statement by making the spread of adjustors for the renewable energy credits 6 ¢ per kWh rather than the 3 ¢ called for in the statement.

Thank you for giving me the opportunity to testify on this proposed final rule and for taking the time to read these comments.

Sincerely,

Thomas Weiss