



Vermonters for a Clean Environment

To: STATE OF VERMONT PUBLIC UTILITY COMMISSION

Re: Case No. 19-0855-RULE

VCE's Response to Request for Additional Information on Proposed Revisions to Vermont Public Utility Commission Rule 5.100 Pertaining to Construction and Operation of Net-Metering Systems

Vermonters for a Clean Environment appreciates the opportunity to respond to questions about proposed revisions to Rule 5.100.

The following information requests are directed to all stakeholders.

5. Please identify all the benefits that net-metering provides (for example, energy, capacity, reduced regional network service charges, etc.).

Renewable energy's net-metering benefits are maximized when the generator is built next to load, thereby reducing or eliminating transmission costs and services associated with the grid. Net-metered renewable energy built far from load and/or far from contracted off-taker is not really "net-metering" in the purest sense of the term, and has substantially fewer benefits than projects built where the power is used.

6. For each benefit identified, please state whether the value of the benefit accrues to the net-metering customer, ratepayers, the utility, or society in general.

When net-metered renewable energy generators are built next to the load to be served, the benefit accrues to the net-metering customer, the utility, and society in general. VCE defers to the utilities regarding the benefits to all ratepayers.

7. For each benefit, please describe how the Commission should estimate the value of that benefit. Please identify what data sources the Commission should use to make such estimates. If you have an estimate of the value of a particular benefit, please provide the estimate, along with supporting documentation showing how the estimate was derived.

In simple terms, net-metered renewable energy projects built next to load have value. Net-metered renewable energy projects built far from load and/or far from contracted off-takers are not real net-metering and should be eliminated from Vermont's definition of net-metering

8. When estimating the value of the benefits of net-metering, what time horizon should the Commission consider? Why?

Time makes no difference if the net-metered project is built where the load and customer are served. If the generation source is solar, panels can be swapped out when they are old. If the customer shuts down, the panels can be removed and repurposed. The eventual disposal of solar panels used for net-metering is a topic that needs to be addressed sooner rather than later, or we are going to end up with a massive waste stream over time.

9. Please identify all costs of net-metering. Please describe how the Commission should account for these costs so that they can be compared to the benefits of net metering.

When net-metered projects are not built next to load and/or are contracted to sell power to distant customers, this increases costs to transmit the power and may fill up the local grid such that nearby community members are unable to net-meter because the faux net-metered project has used up the grid capacity.

The PUC could create definitions for “close to load” and “nearby or proximate off-taker” and establish a rate structure that rewards systems within x distance of generation, such as: within 1 mile would be 100% of the rate, 10 miles would be 80%, 20 miles would be 70%, 21 to 49 miles would be 60%, 50 to 100 miles from load would be 50% of rate, and so on, to incentivize building next to or near load.

10. For each cost, please identify who pays the cost (ratepayers, the utility, society).

Ratepayers, utilities and society pay those costs. VCE is not in a position to offer an informed opinion on the issue of cost-shifting as we have no access to that information. However, in general, based on public statements made by utilities, the current rate being paid for net-metering is too high and is raising rates for all rate-payers while increasing burdens on low-income Vermonters.

11. Please compare the benefits of net-metering to the cost of net-metering under the current net-metering rule.

If net-metering in Vermont is limited to meeting the needs of local load that is being served, transmission costs are reduced and benefits are maximized. Utilities would not be required to absorb so many high cost 150 – 500 kW arrays built far from load or distant customers, and as a result, ratepayers would not be paying for the costs associated with those large arrays.

Large net-metered solar arrays that do not serve local load or customers are benefitting wealthy investors with high passive income whose

participation are a necessary component for the ability of merchant developers to take advantage of the Investment Tax Credit. This rarely-disclosed practice is enriching the wealthy at the expense of ratepayers who are paying the above-market rates given to net-metered projects. The practice of building 500 kW projects far from load and customers is essentially an abuse of the intent of net-metering which was to serve homeowners, schools and businesses to offset their usage, but instead has become a Wall Street-style investment scheme for the benefit of wealthy investors, at the expense of ratepayers.

In the simplest terms, pure net-metering (built next to the customer served) has benefits while faux net-metering (built far from load and/or far from the customer) is unnecessarily costing Vermont ratepayers.

12. If the current net-metering compensation system does not balance the costs and benefits of net-metering, please describe how the compensation system could be changed to better balance costs and benefits.

Eliminate net-metered projects that do not serve local load.

Eliminate 500 kW projects unless serving local load.

Reduce the amount paid to net-metered customers to more closely match the costs being paid for standard-offer projects.

See below, #13, for more ideas.

13. Would using time-of-use retail rates to set net-metering compensation better align the costs and benefits of net-metering? Should the Commission require net-metering customers to be on time-of-use rates?

Time-of-use rates: When a net-metering customer has a direct connection to the renewable energy generator, it is one of the better ways to encourage behavioral changes. Time-of-use rates would encourage customers to use the power when it is generated, when possible. Time-of-use rates would not necessarily encourage people to clean the snow off their solar panels, though. It would be nice to come up with a system that rewards customers for providing more solar power in winter by cleaning off the snow and positioning the panels for winter sun rather than summer sun. The current practice seems to be to maximize the credits in the summer, and then use the credits up by the end of there year, creating zero incentive to produce power when it is very much needed, during cold winter months.

Time-of-year rates: Pay higher rates for winter and lower rates for summer, thereby creating incentives to produce power when it is most needed, in winter. On a sunny summer day, most solar arrays in New England are

producing more power than is needed, and enables the customer to rack up credits. Net-metering rates could more closely follow the actual usage and need, which is how an off-grid system is balanced. There is no point in installing more solar panels than the batteries can charge, and there is no point in installing more batteries than can be charged by the solar array. Current net-metering practices in Vermont create an imbalance in the system that is benefitting wealthy investors and net-metered customers, at the expense of other rate-payers and low-income Vermonters.

Locational rates: As suggested in 9. Above, establish a rate structure that creates an incentive to build the generator close to load and customer.

Please note that the three items above are ideas for the PUC consider. VCE does not currently have an opinion about whether they are good ideas or bad ideas.

14. Should the Commission allow utilities that provide their customers 100% renewable energy to propose alternative net-metering tariffs? If so, what minimum requirements should the Commission adopt for such tariffs?

No. The claim of 100% renewable energy relies on the sale of Renewable Energy Credits and hides the true cost of renewable energy. Gimmicks like selling high-value RECs and replacing them with low-value RECs while still enabling the claim of 100% renewable energy should be abolished.

However, systems that have over-subscribed net-metered sites that cannot handle more net-metering (especially the 150 – 500 kW size projects) should be considered for an alternative net-metering tariff. Presumably it would be high enough to discourage projects in areas that do not need more power and encourage serving local load.

15. Should the Commission adopt a limit on the amount of new net-metering resources? If so, how should the Commission determine the amount?

No. But the Commission should prioritize new net-metering to serve local load. That raises the question, “Should the Commission abandon the size limit for net-metered projects, and change the system so that any renewable energy system that serves local load would qualify as net-metered?” “If a college has a load of 700 kW and wants to net-meter to meet its load, what should the price be?”

The Commission should disallow the practice of allowing 500 kW projects that are next to each other, a ruse that has been used by developers to stay under the net-metering cap and get a higher rate of return for 1 MW projects.

VCE is interested in seeing the PUC explore the possibility of somehow combining or replacing the Standard-Offer and Net-Metering programs with a

system that brings the price down to Standard-Offer rates (now averaging around 8 or 9 cents). Each program is currently challenged by different variables. Net-Metering rates are too high and unsustainable according to the utilities. Standard-Offer projects are driving down the rates, but many recipients of contracts are not getting projects built in a timely manner, if at all.

Utilities say they can build projects cheaper than merchant developers. The PUC could explore how to create a system that enables the continuing development of renewable energy by merchant developers, but at lower rates, while also enabling lower cost utility projects. The tension between merchant developers and utilities that benefit from owning infrastructure is a topic that should be discussed as part of figuring out how to change the system for greater benefits with lower costs.

B. Preferred sites

1. What standards or criteria should regional and local bodies apply to determine whether a site should be designated as “preferred”?

VCE stands by its previously stated opinion that the problems we have articulated regarding preferred site designations are such that we do not support the continuation of the practice. However, if deemed necessary, then the preferred site process needs more complexity, such as:

- a. Notification. The usual notification that goes with an application should be done, including adjoining and anyone in the viewshed, plus the usual municipal and regional bodies.
- b. Grid capacity. How much room is there on that section of the grid? Could the proposed project use up grid capacity such that local homeowners and businesses would be shut out of net-metering?
- c. Environmental issues. If the site is forested, in a flood hazard zone, on prime agricultural soils, on wetlands, and/or cannot adequately be screened from neighbors, provide an explanation about why this site is preferable and what alternatives have been explored.
- d. Neighbors. Have the neighbors been contacted and are they okay with it?
- e. Pure net-metering. Is it serving local load?

2. Which entity should be responsible for making a determination that a preferred site meets the applicable standards and criteria? Should it be the local planning body, the regional planning body, or the local legislative body? Or all three?

- a. The unfortunate reality is that these local and regional bodies do not have the necessary information to make a determination at the early stage of the process when preferred site designation is sought. The site itself may be

well screened from neighbors, but aesthetics is not the only necessary component to evaluate. Experience with this topic in recent years shows that often the developer cannot answer questions about grid capacity, will propose a net-metered preferred site without having any customer to serve, and sometimes these sites are far from load.

- b. To make an informed decision, utilities should be required to provide information regarding grid capacity, and developers should only be able to request preferred site status when serving local load for an identified customer. If those parameters are included, then all three bodies should be required to support the preferred site designation, and if one says no, it should be denied.

3. What procedures should regional and local bodies follow before designating a site as preferred? Should notice be provided to adjoining landowners and the public before this decision is rendered?

Answered above. Yes, notice to adjoining landowners, etc. Otherwise you're just asking for trouble, as an un-notified interested party could legitimately claim that their rights were undercut by issuance of a preferred site letter that affected their particularized interests. A neighbor with legitimate interests could find themselves in the position of starting out at a disadvantage if the town and region have issued the preferred sites letter and it is given more weight by the PUC than the neighbor's concerns.

4. What information should applicants be required to provide to regional and local bodies before a site is designated as preferred?

- a. See 2. Above. Regional Planning Commissions and Town Boards should be required to receive an impact assessment letter from the utility that will be taking on the new plant for consideration in determining whether the site should received a preferred site designation.
- b. Additionally, review of ANR Atlas features, including but not limited to impacts to forests and forest blocks, wildlife and wildlife habitat, prime ag soils, plus information about grid capacity and customer/off-taker.

5. Should a local determination that a site is or is not a preferred site be subject to review by the Commission? If so, what procedures should the Commission use to review such determinations?

- a. The Commission should not find the local determination to be dispositive. The Commission should give the preferred sites letter the same weight given to the recommendations of the municipal legislative body, and the municipal and regional planning commissions.
- b. For towns with Enhanced Energy Plans, according to Statute, duly adopted Enhanced Energy Plans and Special Policies contained in those plans receive a higher standard of review, "substantial deference."

Recommendations of municipal legislative bodies and municipal and regional planning commissions receive a lower standard of review, “due consideration.” Towns with Enhanced Energy Plans should expect that the Town Plan and Special Policies it contains will take precedence over any recommendations by municipal legislative bodies and municipal and regional planning commissions.

- c. Towns that have Enhanced Energy Plans should be required to submit information such as,

If a town has an Enhanced Energy Plan that includes a Preferred Sites map, did the town consider the proposed preferred site as a preferred site when developing the Enhanced Energy Plan? If yes, and it was not considered for designation as a preferred site during the planning process, why not? And why should it now be considered a preferred site?

If a town has an Enhanced Energy that does not include a Preferred Sites map, the town should be required to explain why they chose not to include a Preferred Sites map, and why the proposed preferred site should be considered for the higher rate given to preferred sites, outside of the public planning process.

Respectfully submitted this 1st day of November, 2019 by



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