

**STATE OF VERMONT
PUBLIC UTILITY COMMISSION**

Case No. 19-0855-RULE

Proposed revisions to Vermont Public Utility
Commission Rule 5.100

**RESPONSE OF ALLEARTH RENEWABLES, INC. TO REQUESTS
FOR ADDITIONAL INFORMATION**

AllEarth Renewables, Inc. (“AER”) offers the responses below to the “information requests directed to all stakeholders” in the Vermont Public Utility Commission’s (“Commission”) August 22, 2019 Request for Additional Information and Discussion of Next Steps (“the August 22nd Order”). This response also addresses the questions set forth in the August 22nd Order relative to preferred sites, and request for comments or edits on the Commission’s proposed net metering registration form.¹ AER will address the utilities’ responses to the questions asked of them, and the comments of other parties, on or before November 15, 2019 in accordance with the revised schedule set forth in the Commission’s Order of October 17, 2019.

INTRODUCTION AND OVERVIEW

Comments on Vermont’s net metering rule and prospective changes to it must be developed from both an understanding of the context in which the rule exists and proper recognition of the scale of the climate crisis that it is intended to help address. The gravity of that crisis, and the urgency of the need to address it, have been increasingly well understood and documented since the last update of the rule just a few years ago.² State law recognizes the issue and the role of net metering in addressing it,³ and net metering must be more and not less of a component in accomplishing what needs to be done now.

Since its initial adoption nearly twenty years ago, Public Utility Commission Rule 5.100 (“Rule 5.100”) has steadily grown in length and complexity, with much of that complexity attributable to issues surrounding price and siting. While much reflection, talent and work have gone into those efforts, the time has come to embrace a simpler approach in order to move

¹ August 22nd Order at 4-5

² IPCC, 2018: Global warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty [V. Masson-Delmotte, P. Zhai, H. O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J. B. R. Matthews, Y. Chen, X. Zhou, M. I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, T. Waterfield (eds.)]

³ See 30 VSA §8001(a)(6) (“contributing to reduction in global climate change” among Vermont’s renewable energy goals); 30 VSA §8010(c)(1)(a) (net metering program shall advance goals and renewables targets as well as goals of 10 VSA §578 (greenhouse gas reduction)).

forward. Recognition of what we need to do – combat a climate crisis that impacts all of us – compels rejection of an unduly granular approach that, while increasingly possible, is decreasingly wise. Vermont utility service territories are largely arbitrary creations; a utility owned by a single small village may serve all or part of a large number of towns,⁴ a small town may be served by an investor owned utility and a cooperative,⁵ and a utility service territory line may literally run through a customer’s property.⁶ The climate crisis, however, does not admit of such nuances; there is not investor owned air, municipal or electric cooperative air. The comments below are premised on this understanding and approach.

RESPONSES TO QUESTIONS TO ALL STAKEHOLDERS

(NUMBERS ALIGN WITH THOSE IN THE AUGUST 22ND ORDER)

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

At the outset, it must be remembered that the Vermont Legislature recognized the deep and lasting benefits of a strong net metering program when it required the Commission to not only establish but to also maintain a net metering program that, among other things, “ensures that all customers who want to participate in net metering have the opportunity to do so.”⁷ This mandate, and the accompanying statutory directive to “simplify the application and review process as appropriate,”⁸ are reflective of a recognition of the extent of the benefits of net metering. Those benefits include:

- As noted in the Commission’s question, net metering facilities provide needed energy for the benefit of Vermont residents and businesses
- Net metering facilities also provide needed capacity benefits, as the Commission’s question likewise notes
- A strong net metering program contributes to modernizing and “decentralizing” the grid by allowing numerous smaller scale renewable energy facilities to provide power to the grid, thereby creating a more diversified energy mix and more resilient system.
- The system upgrades often associated with interconnection of these facilities contributes to a more modern and robust grid
- Vermont communities and residents benefit from net metering in many ways, including:
 - Job creation
 - Local spending as a result of those jobs
 - Retaining and attracting workforce talent

⁴ The Town of Hardwick Electric Department, for example, serves all or part of Hardwick, Calais, Craftsbury, Eden, Elmore, Greensboro, Hyde park, Stannard, Walden, Woodbury and Wolcott.

⁵ As one of many examples, East Montpelier, with a population of approximately 2600, is served by both Green Mountain Power and Washington Electric Cooperative.

⁶ See *In re EHV-Weidmann Industries, Inc.*, 173 Vt. 581; 795 A.2d 1185 (2002)

⁷ 30 V.S.A. § 8010(c)(1)(E)

⁸ 30 V.S.A. § 8010(c)(3)(C)

- Direct benefits to municipalities and schools who own net metering systems or participate in group systems
- Reduction in network service charges as recognized in the Commission’s question, with the economic benefits inherent in that reduction
- The physical and cybersecurity advantages of avoiding large and thus more easily targetable generation stations
- And most important of all, the environmental benefits that must be obtained to ensure continuation of a world in which the ones listed above will matter

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.

While individuals, businesses and communities may and do benefit from their ownership of or participation in net metering facilities, the benefits of renewable energy to an increasing extent accrue to society at large due to the shared nature of climate, job and economic-security related problems that the further development of renewable energy serves to address. “Utilities,” “ratepayers” and “customers” are all subsets of the broader society -and world- that is better off when renewable energy facilities are aggressively installed.

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.

AER does not have a specific valuation methodology to propose at this stage of these proceedings, and would encourage the Commission to consider bringing in an outside expert to offer a presentation on the subject, to be followed by a comment period offered to the parties. Such a presentation should specifically include subjects such as recognizing the full value of carbon reduction as well as the other benefits noted in response to question 5 above.

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

Consideration of both long and short term horizons is essential given the critical need to develop and retain renewable energy infrastructure, the fact that long- term periods are embodied in state statute, and that renewable energy facilities are proven to work well for long periods of time. We also must recognize the unfortunate reality that the State is not on track to meet even its overly modest renewable energy goals and requirements. While much of what is contained in statute reflects long term goals and mandates,⁹ the steps necessary to make a difference must be taken now, and Rule 5.100 is an important vehicle in taking those steps.¹⁰ Moreover, renewable

⁹ For example, the required amount of distributed generation under Vermont’s Renewable Energy Standard (“RES”) program is 10 percent on and after 2032,⁹ and the state’s energy goals reflect dates as far out as 2050.

¹⁰ It should also be noted that the percentages in the RES are not caps or cutoffs, and the Commission has the power to help create a net metering program that will help ensure that small-scale renewable energy deployment occurs on a more meaningful scale.

resource energy facilities, including those currently in place, have the capacity to last for decades given such factors as the slow rate of degradation of solar panels and the ease of replacing them, and the long life of properly built and maintained wind generation facilities.

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.

It is most important to state at the outset what framework should *not* be used in thinking about costs in this context. While the filings of other stakeholders in this proceeding are not yet available for review, it is in AER's observation not uncommon for utilities and other entities to provide analyses that contrast net metering, standard offer or other renewable power prices with those available for fossil fuel-based generation. AER submits that this is no longer a viable framework in which to operate, given the climate crisis that we face, and that comparisons with non-options must not serve as a basis for generating numbers that are then labeled as "costs."

This is not to say, of course, that the vastly more ambitious net metering program that is required can be implemented without, first, the commensurate expenditures necessary to create a more robust/modern grid and power supply system adapted to a rapidly changing world. Investments in our grid are investments in our future. Because the framework proposed here – taking fossil fuels out of the analysis- is a fundamental paradigm shift, the parties (including AER) would benefit from other parties' insights as to how cost/benefit analysis is most appropriately structured under it.

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

Please see the response to question 9 above. In the current structure, the costs of grid upgrades, power supply (including net metering-supplied power) are generally passed through from electric utilities to the ratepayers of those utilities.

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

To answer this question in a meaningful way requires a comprehensive understanding of the costs of climate change in both quantitative and qualitative terms, and where the state is now at in terms of meeting even its overly modest statutory renewable energy goals and requirements. What the Commission should not do, and not allow the stakeholders here to do, is undertake an analysis under which net metering rates are contrasted with non-renewable, hypothetical power supply opportunities, and in which the costs of creating a more robust grid are laid at the doorstep of net metering or other renewable projects, rather than understood as also being essential components of evolving consumer needs, reliability of service, grid physical security and cyber security, and a variety of other factors.

AER suggests that the Commission hold a workshop specifically focused on how to structure this question, which subsequent workshops and filings addressing how to answer the question under the structure that is put in place.

12. If the current net metering 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.

Please see the response to question 11 above. Given the considerations outlined at the beginning of these comments, AER submits that the analysis that needs to be undertaken relative to question 11 will almost certainly yield a conclusion that the current system of compensation does not fully recognize the value of net metering, and that a compensation system must be put in place that not only captures that value, but can be easily understood and efficiently administered. Discussion of the topics suggested by AER in the final section of this filing, as well as other topics that other parties will no doubt suggest, would facilitate arriving at an appropriate and straightforward system of compensation.

13. Would using time-of-use retail rates to set net metering compensation better align the costs and benefits of net metering?

No. Again, this is an instance of where granularity misses the big picture, and the fundamental purpose that renewable energy facilities serve. That time of use rates are possible as a matter of technology does not mean that their implementation makes sense in the net metering context. Predictable revenue streams are a vital component of project evaluation and financing, and it is difficult to envision reconciliation of this reality with time of use rates. AER will be interested in reviewing comments from other parties as to how or whether such a concept might work consistent with the state's renewable energy goals and mandates, and AER will further address this issue in its reply comments.

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. As discussed at the outset of these comments, it needs to be remembered in the context of climate change that utility service territories are artificial lines, particularly in the context of a climate crisis that knows no such boundaries. It is also true that what constitutes "100% renewable energy" is hotly debated in a world of out of state REC sales and purchase of cheaper out of state RECs to meet state statutory requirements. This is yet another area where a simplified, statewide approach is called for.

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. What is vastly underemphasized and perhaps not well understood is the extent to which the electrified, renewable resource-powered society that must come into being in the not too distant future will require a vastly higher level of renewable generation to accommodate significantly higher electricity usage than occurs at present. For many years, a blend of economic conditions, efficiency measures and other factors have produced a level of electric demand that has been quite flat or even declining. Current forecasting in most instances carries that approach forward,

projecting modest growth at most.¹¹ If we are to take seriously the challenges of climate change as well as state goals and requirements, however, AER believes that a truly electrified, renewable energy-powered economy will require a vast increase in electric demand and the generating facilities needed to meet that demand. To meet these levels will require both vastly more renewable resources (honestly defined and of all types and scales) and a much more robust grid, and development of both must proceed unfettered and in tandem.

PREFERRED SITES QUESTIONS

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

As discussed in various points above, net metering development must occur at a rapid pace under rules and pricing that are simple, rational and clear. AER submits that the preferred site concept does not fit these criteria, and adds complexity and administrative burdens to the detriment of all stakeholders and society at large. The Commission should explore and implement an approach in which net metering rates are set at an adequate level without preferred site adjustments, and (2) local bodies have the authority to allow for more, but not less, liberal siting of net metering facilities than may be otherwise established by Commission Rule. Under that approach, the standards or criteria applied by local and regional bodies should be left to their sound discretion.

17. 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?

Please see the response to question 17 above. AER takes no position on the specific allocation of local responsibilities under the construct it has proposed, but does believe that the voice of the local bodies should be a strong one within that construct.

18. 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?

Please see responses to questions 16 and 17 above. Notice requirements should be left to the regional and local bodies under AER's proposed approach.

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

Please see responses to questions 16 and 17 above.

20. 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?

¹¹ See, for example, the Itron forecast utilized in connection with the VELCO Long Range Transmission Plan, www.vermontspc.com/2017LoadForecast

No. As discussed in response to question 17, the additive approach endorsed by AER would leave these determinations to local bodies, and Commission review would be inconsistent with such an approach.

COMMENTS ON REGISTRATION WORKSHEET

AER appreciates the Commission's consideration of the content of the Registration Worksheet in this proceeding, as it is an important component of the process for customers, utilities, renewable energy businesses and the Commission itself. Given the number and diversity of parties to this proceeding, and the likelihood of equally diverse insights and ideas, AER respectfully suggests that consideration of the specifics of the Registration Worksheet and any other forms be deferred until a bit later in the process, when there can be a greater understanding of and finality to the specifics of a proposed rule from which the forms must be derived.

ADDITIONAL TOPICS

As discussed at the outset of these comments, the climate crisis compels not only immediate action, but a simplified and clear regulatory approach that strongly promotes an immediate surge in net metering installations, particularly given the ramping down of the tax credits associated with them. To make this happen will require a blend of statutory and rule changes that yield clear and appropriate pricing, a realistic accounting of the value of renewable energy credits, and a statewide approach that, as much as possible, removes both the artificial barriers of utility service territory lines and outdated power supply comparisons to fossil fuel generation that we simply cannot afford no matter its pricing structure. While this is by no means an exhaustive list, workshop discussions and written comments over the course of this proceeding should address:

- Implementation of a net metering program that is uniform not only in the pricing of net metering credits but in all fees and costs associated with net metering installations
- Consistent with the above, an ability to form group systems across utility service territories
- Creating an ability of net metering customers to donate excess credits to the benefit of lower income customers and charitable organizations, whether or not the beneficiaries are themselves net metering customers
- Significantly raising the size at which net metering systems may use the registration process
- Consideration of how the utility Integrated Resource plan process must be made more rigorous and required to directly address the creation of a modern, robust grid that will support in state renewable generation
- A process for making a realistic and prompt assessment of what electric demand in Vermont will need to be if we are to accomplish conversion to an electrified society in the time available to do so
- Steps to be taken to ensure that net metering is in fact available to all customers who wish to be part of its benefits

Thank you for this opportunity to comment.

Dated this 1st day of November, 2019.

AllEarth Renewables, Inc.

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