STATE OF VERMONT
PUBLIC UTILITY COMMISSION

Case No. 19-0855-RULE

Proposed Revisions to Vermont Public Utility Commission Rule 5.100

GREEN MOUNTAIN POWER POST-WORKSHOP COMMENTS

Green Mountain Power ("GMP") submits these follow-up comments to the September 16, 2021, workshop regarding net metering compensation in the above-referenced matter.

Introduction

We are pleased to have the opportunity to submit these post-workshop comments. Our comments are centered on one goal: procuring more local renewables so that all Vermonters can benefit from energy transformation and reduce carbon in all aspects of their lives, while we deliver a much more resilient energy system in the face of climate change. GMP will achieve a 100% renewable energy supply by 2030 that includes significant new local and regional renewables. Together, we have a lot of work to do to quickly drive out carbon in Vermont while also building new connected distributed energy resources that are resilient in the face of climate change. We are proud of the work we have done together in Vermont over the last 15+ years to lead the way in getting solar off the ground. We have been a model for the country. And now, we must work together to evolve those now traditional policies to something bigger and better for Vermont and once again be a model for others on how innovation and partnership can change lives for the better. We now need to lead the way in getting distributed energy resources including solar to scale, quickly and affordably, for all. Leaving our traditional policies the same will leave Vermont behind.

As comments received in the proceeding already have demonstrated, net metering generation under current policy is presently substantially more costly than other available new renewable

generation sources, including new local distributed renewable sources. To ensure more customers that want to go solar have the path to do so, we must evolve, and this will take more fundamental changes to policy than would be encompassed in this rulemaking.

Net Metering in GMP's Service Territory

The installation of net metering systems from 2018 through 2021 to date has continued at a very robust pace for all size projects, even with the adjustments during the two recent biennial net metering reviews. In each year since 2015, at least 20 MW of new net metering capacity was installed (reached commercial operation) in GMP territory. Installations in 2018 through 2020 were at about 30 MW per year; installations in the year ending June 30, 2021 (presumably impacted by the coronavirus pandemic and its economic effects) were slightly lower at about 26 MW. Each category of project size garnered a significant share of the annual installations, although large projects (those up to 500 kW) have made up the largest share in every year since 2016.

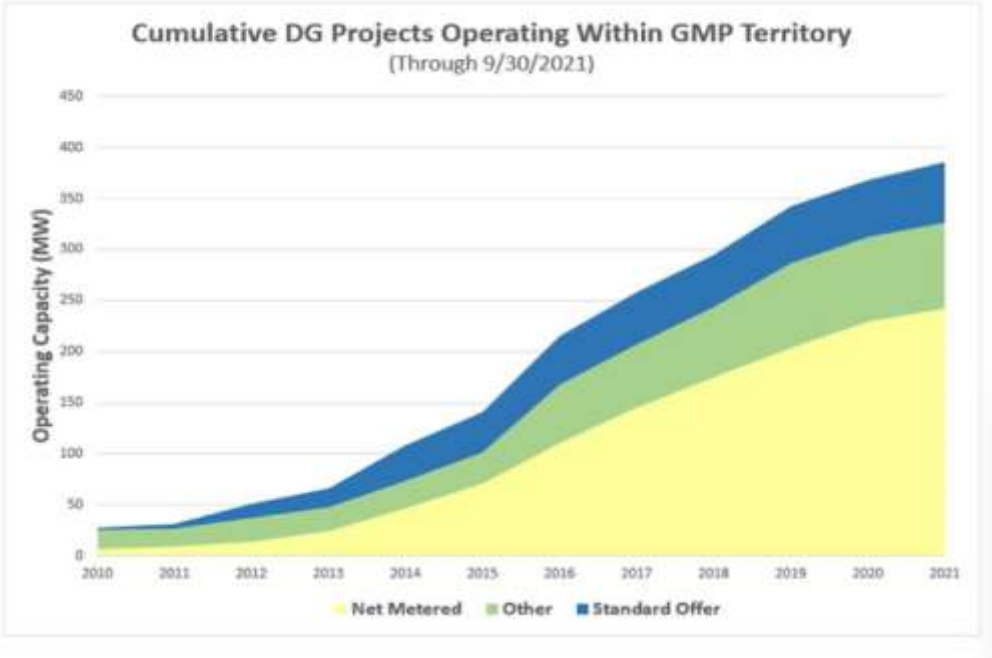
Applications for new net metering projects have also remained strong. Annual applications over the past five years have averaged about 40 MW, with a somewhat slower pace in 2020 (presumably influenced in part by the lingering coronavirus pandemic) with a noticeable bounce back in the current year. In fact, the present queue of projects has grown to about 60 MW – the largest it has been since 2018, and a further sign of recovery from the effects of the pandemic.

Net Metering in the Context of Vermont's Energy Transition

We recommend that the Commission continue to consider net metering in the context of Vermont's broader efforts to decarbonize the transportation and heating sectors through the electric sector, and the most cost-effective ways to achieve that imperative goal. Transportation and heating are the top two sources of carbon pollution in Vermont; any meaningful reduction to carbon emissions in the state starts and ends there.

Distributed generation installations that are co-located with or near the electricity load they serve should continue to be part of Vermont's path to a more renewable power supply. It is important to note that net metering is not the only option for new distributed renewable generation, and the practical choice that Vermont faces is not between net metered generation and fossil-fired power sources. Instead it is: how can Vermont deploy more distributed generation, more cost effectively, to more people, in a way that benefits all Vermonters?

To date, while substantial volumes have been developed through other mechanisms including Vermont's Standard Offer program, bilateral PPAs between GMP and renewable developers, and GMP-sponsored renewable projects, the robust pace of relatively higher cost net metering growth has outpaced these other resources. The chart below illustrates the historical growth of distributed generation in GMP's territory, amounting to over 400 MW in total:



Importantly, much of the local distributed generation development in more recent years has been achieved at prices much lower than the effective cost of net metering. For example, in the context of the

2021 Standard Offer Request for Proposals, 17 proposals for solar projects amounting to more than 37 MW of project capacity were submitted with binding price proposals of between 8.48 cents/kWh and 9.9 cents/kWh (fixed prices, no escalation). Ten of these proposals were priced less than 9 cents/kWh. GMP's experience soliciting PPA proposals and sponsoring joint venture projects is consistent with these results - yielding significant volumes of local distributed renewables priced multiple cents/kWh less than large net metering projects being developed at a similar point in time. For context, if just the 11.3 MW of large net metered projects installed in the 12-months ending 6/30/2021 were instead procured at the winning 2021 Standard Offer price, the cost difference to GMP customers for that one year would be nearly $1 million. Even with scale, locational value, and other considerations, there is a substantial opportunity to procure more local distributed generation at lower overall cost for all Vermonters outside of net metering.

Vermont's RES establishes increasing requirements for the supply of total renewable electricity and the minimum fraction that should be supplied from local distributed renewables. The specific volumes needed and the appropriate procurement tools will depend in part on actual future outcomes, including the success Vermont has in decarbonizing transportation and heating. It is our hope that, with all of us working together, Vermont can evolve to new policies to support more distributed generation, more cost-effectively.

Broad Customer Participation

With respect to steps the Commission could take to ensure that participation in net-metering or similar programs is equitable among all customers, we reiterate and refer to the comments made in response to the Department of Public Service Request for Information regarding the design and implementation of an Affordable Community-Scale Renewable Energy Program. Rather than adapting the current net metering program to add more features and criteria for participation, other programs and

new procurement designs could instead be advanced that benefit more customers while limiting the cost shifts in the current net metering program. We see the value in the approach Connecticut has taken in their Shared Clean Energy Facility, for example, to carve out a program specifically built to develop local, renewable generation with the participation of low-income customers in a structure that is not net metering. Programs that leverage economies of scale and are broadly and easily available to eligible customers would drive down project costs and increase participation.

Potential Changes to Net Metering Compensation and/or Related Rate Designs

Turning specifically to the net metering compensation considerations raised in Commission questions and other comments, GMP recognizes that several options are available. Smaller systems located directly on the customer premises offer greater value to the customer and greater grid, with lower individual impacts to other customers. One alternative presented would be to de-couple the compensation from residential electric rates and instead monetize the used generation and excess generation at values that bring total net metered compensation closer to the cost of other renewable alternatives. If the Commission continues to link net metering compensation to residential retail electric rates, another option could be to look at TOU rates or modify rate designs to bring kWh rates lower. Either approach could make the program more affordable for all other customers and therefore more sustainable for Vermont. A continuation of non-bypassable charges as appropriately defined within any new structure of net metering would also ensure all customers that rely on the grid share in the cost and benefit of those grid services. All customers, including those with net metering systems closely matched to their own load, rely upon the greater grid and that reliance will be even more important for all of us in the years ahead as we drive out carbon uses elsewhere in our lives. Higher customer charges and lower kWh charges via rate redesign, such as recently implemented by Washington Electric Cooperative, could help align the short-run and long-run marginal costs to serve electric load, and have the

complimentary benefit of serving electrification goals by reducing the fuel costs for new electric transportation and heating load. As net metering enters its second decade or more of existence here and elsewhere, we have seen other states take these and similar steps to improve policies to transition to programs that are more affordable for all customers.

With respect to the size of net metering systems, we note that cost issues to all customers are more important to address for the larger net metering projects where there is more of a direct comparison to the rates available through other procurement means (and also more likelihood that program rules now artificially constrain how these larger net metering projects are developed). This is particularly true because a substantial fraction of large net metering capacity is not co-located with existing load. Standalone group net metering systems are often not offsetting load or providing grid benefits (e.g., reducing energy losses) to the same degree that smaller located on or near customer load systems can. Structural changes to net metering eligibility for these projects, coupled with new procurement methods that ensure greater overall deployment of distributed generation, is imperative for Vermont.