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October 13, 2021

Ms. Holly Anderson
Clerk of the Commission
Vermont Public Utility Commission
112 State Street, Montpelier, VT 05620

Re: Aegis Comments on Case Number 19-0855-RULE – Response to the September 16, 2021 Workshop on Net Metering Compensation

Dear Ms. Anderson:

Aegis Renewable Energy, Inc. ("Aegis") is pleased to submit the following comments in response to the September 16, 2021 workshop for case number 19-0855-RULE regarding Net Metering Compensation as set forth in Public Utility Commission ("Commission") Rule 5.100. Below is a discussion highlighting and expanding on some of the primary points I made in my presentation during the workshop.

The PUC Is Required to Take into Account Environmental and Societal Benefits

My presentation emphasized that we are experiencing an environmental emergency, now. We have already seen dramatic consequences from a mere 1.5-degree Celsius global temperature rise. Some of these changes are as follows:

- 50% of the world's coral reefs have been destroyed (1)
- The pace of glacier loss is 4x faster today than in the 1980's (2)
- 2020 - the worst wild fire season in US history. 2021 - on track to exceed that.
- Sept 2, 2021 - Hurricane Ida First ever NYC flash flood emergency. 45 dead.
- Arctic sea ice has declined 52.4% over the last 40 years (3)
- June 2021 – A heat dome over Oregon with record temperatures over 120 degrees F kills 98 people

The cost of not responding to this emergency increases with every day of inaction. Sadly, it is our children and grandchildren who will suffer the most for the actions of those in power today.

Despite the statutory language in Rule 5.100 that requires the consideration of all of the environmental and societal cost and benefits of Net Metering projects during rule making, including biennial adjustments to Net Metering, the PUC has elected not to factor these elements into the equation. In the face of the dire current and long-term environmental and economic impacts of climate change this oversight is particularly disheartening. It is my hope that the PUC can align its rule making with the current climate truth and take appropriate action to encourage a rapid acceleration of in-state renewable energy. Maintaining the status quo or taking further

(1) [https://sloactive.com/coral-reef-crisis-](https://sloactive.com/coral-reef-crisis-guide/#:~:text=However%2C%20coral%20reefs%20are%20currently,how%20can%20we%20stop%20it%3F)

[guide/#:~:text=However%2C%20coral%20reefs%20are%20currently,how%20can%20we%20stop%20it%3F](https://sloactive.com/coral-reef-crisis-guide/#:~:text=However%2C%20coral%20reefs%20are%20currently,how%20can%20we%20stop%20it%3F)

(2) <https://www.climate.gov/news-features/understanding-climate/climate-change-glacier-mass-balance>

(3) <https://climate.nasa.gov/vital-signs/arctic-sea-ice/>

Action that stalls the deployment of renewable energy in the state would call into question the PUC's commitment to the wellbeing of the natural environment and citizens of Vermont and amplify the PUC's lack of compliance with existing statutes.

We Must Stop Allowing the Use of Hydro Quebec RECs to Cover Up Our Fossil Fuel Electricity Consumption

The Global Warming Solutions Act explicitly adopts the Paris Climate Accords as the defining framework by which we evaluate the "greenness" of our electric supply. By this standard electricity, and even more egregiously RECs, procured from Hydro Quebec are NOT renewable energy. Here are some of the reasons:

- HQ Flooded 6,000,000 Acres of land. The biomass that was covered over releases Co2 and methane into the atmosphere equivalent to 50% of the greenhouse gas emissions of a natural gas power plant of equivalent electricity output.
- These 40-year-old hydro facilities do nothing to reduce carbon today because they are not new renewable energy plants. They are not offsetting anything. To meet the Paris accord requirements our renewable energy supply must displace existing greenhouse gas emitting generation i.e. meet the definition of additionality which, on a basic level, means that the renewable energy plant must not be greater than 15 years old
- VT buys the HQ RECS to cover up our fossil fuel energy use. Based on the fiction that the HQ RECs made our supply green our utilities then make us even dirtier by selling the attributes of our truly clean locally produced solar and wind power to out of state polluters who use them to absolve their own continued pollution. So not only is VT's energy supply dirty but our practice of REC arbitrage is helping polluters to continue their assault on the environment.

Vermont May Need to Sue Itself for Misleading the Public

Attorney T.J. Donovan is suing fossil fuel companies for misleading the public about the effects of fossil fuels on the environment. State regulators are taking a similar approach in their masking of the true nature of our fossil fuel dominated electricity supply. Without self-correction, the misleading claims of Vermont utilities and their regulators may necessitate legal action by the Attorney General's office. The use of REC arbitrage is endangering the future of all Vermonters.

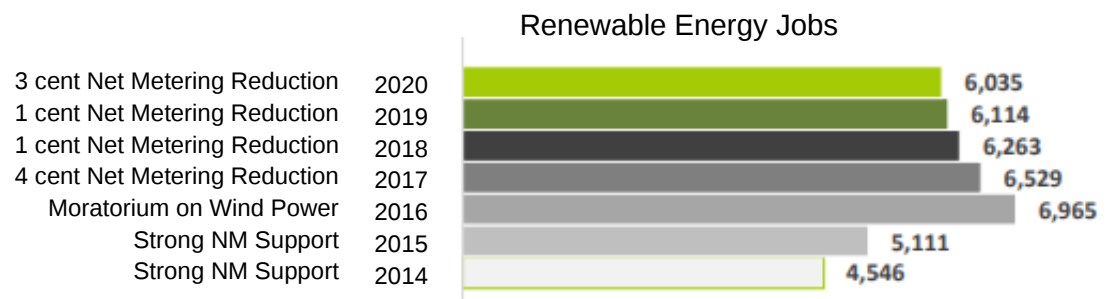
Efficiency Has Been a Huge Success. Similar Support for Renewables Would Yield Even Greater Success

Vermonters pay an energy efficiency charge of up to 7% of their total bill. For the average Vermonter this equates to \$6.72 each month. The Net Metering ratepayer investment adds 0.37% to the total electric bill which equates to \$0.34 each month (5)

We can easily compare the cost per ton of CO2 avoided for efficiency vs Net Metering. Net Metering is 7.5x more cost effective at reducing Vermont's carbon impact. Put another way a dollar invested in Net metering reduces 7.5x more CO2 than a dollar invested in Efficiency. Efficiency is important and deserves all of the monetary support Vermont gives it, but Net Metering provides a greater return and ought to enjoy greater support. (4) (6)

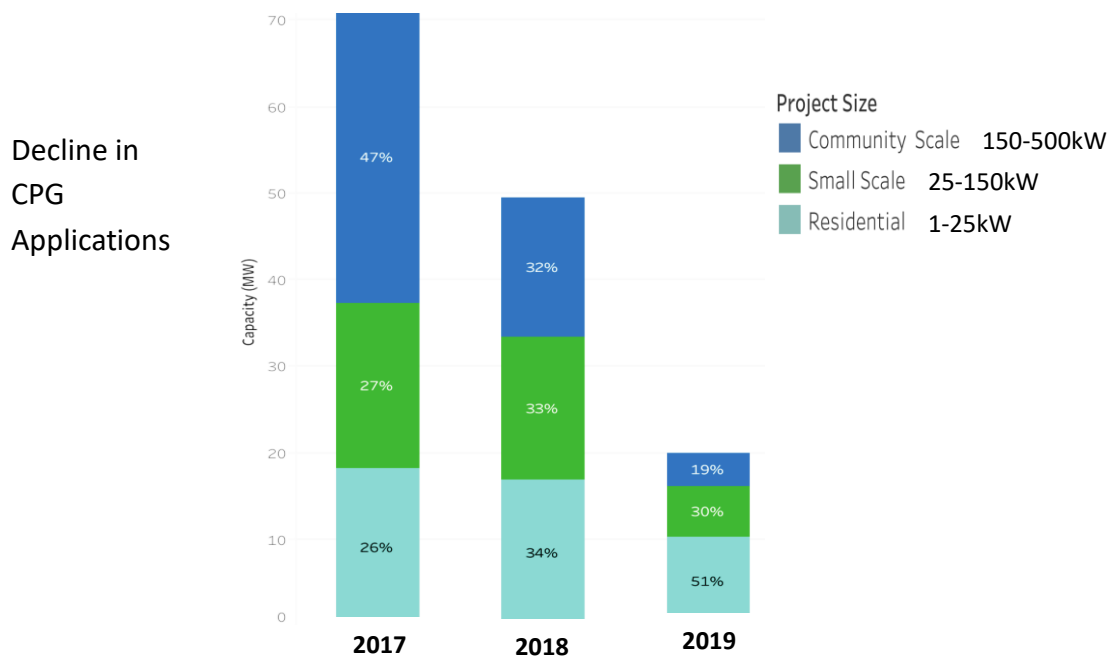
Net Metering Rule Changes Have Severely Impacted Renewable Energy Jobs

As noted in the Department of Public Service Clean Energy Development Fund Jobs Report of 2020 there was strong support for Net Metering during 2014 and 2015. As a result, we saw 565 renewable energy jobs added in 2014 and 1,854 jobs added in 2015. In 2016 the new administration began a campaign of annually crimping Net Metering incentives and making permitting more difficult. As a result Vermont has suffered job losses every year since 2016. The graph below, from the CEDF Jobs Report, clearly shows the trend. (7)



Net Metering Rule Changes Have Resulted in A Major Decline in Solar Projects

Through a careful examination of CPG permit applications submitted to the PUC via the ePUC portal database, Norwich Solar Technologies was able to show definitively that there has been a major decline in solar permit applications in recent years. This decline is not unsurprising given the restrictive rule changes imposed by the PUC. This evidence, linking PUC rate and rule changes to decreased deployment, which was specifically requested by PUC Chairman Roisman is shown graphically below. (8)



(7) Dept. of Public Service Clean Energy Development Fund Jobs Report 2020

(8) ePUC database

Net Metering Does Not Need to Be Replaced but It Does Need to Be Repaired

Given the importance of mitigating the worst effects of climate change the PUC should enact immediate rule changes to encourage the rapid deployment of carbon free renewable energy generation. In the interest of helping the PUC to make meaningful steps toward this goal I have created three lists below. The first list is comprised of low impact non-controversial changes to the Net Metering program that would begin to breathe life back into the State's commitment to in-state renewables. The second and third lists are comprised of actions the PUC could take that, while being a heavier lift, could help put the State on track to meet the commitments it is obligated to achieve through the Global Warming Solutions Act. Some of these recommended changes would require legislative action. However having the support and recommendation of the PUC behind these changes would enhance the likelihood of their passage by the legislature.

EASY LIFT ACTIONS:

1. Remove the off-taker cap of 500kW
 - Up until 4 years ago, an off-taker had no limit on the capacity of KW to which they could subscribe.
 - Restore so-called "Super Groups" which allows large electricity users to offset all but non-bypassable charges with net metering. This means they would no longer be limited to 500kW of net metering. The current 500kW cap is arbitrary and serves no other purpose than to limit the adoption of renewable energy
2. Allow off-takers to take power from more than one offsite array
 - Make the limit something like six or seven projects
3. Make CPGs valid for 2 years. The 1-year expiration forces many projects to request extensions that use up valuable PUC time and resources
 - Alternatively allow a project to request an extension to 2 years with an automatic approval by the PUC. No explanation required
4. Restore the 150kW cap for CPG "Applications" instead of requiring a full "Petition" for 50kW and larger projects
 - This is simply restoring the rules that were in place 4 years ago
5. Allow Solar on farm fields
 - To mitigate the visual impact concern, implement some level of requirement for 75% screening (existing or installed) for sites that are under 200' setback from roads or residences.
 - Farmers are in real need of economic support. This change in policy will provide lease income for farmers and tax revenue for the municipality and the state
6. Exempt ACT250 sites from tree planting reclamation requirements if solar is installed instead. Change the requirement to grass or pollinator friendly mix
7. Do not allow abutting landowners who do not have an occupied building within visual line of sight of the array to intervene in a CPG petition
8. Hold the PUC to the same review period standard that telecom CPG applications are processed under.
9. Eliminate the CPG petition requirement for a "Utility Letter of Support" and a completed "Fast Track" and/or "Feasibility/System Impact" study to be submitted with the project petition
 - Simply require that the issued CPG has a condition that requires utility approval to interconnect prior to the interconnection
10. GMP always fails 500kW projects in their Fast-Track analysis which means that the project is always forced to have a Feasibility Study completed by GMP. Make a rule that allows projects to opt to bypass the Fast Track. This will save the project one month in the permitting phase and eliminate unnecessary bureaucracy and expense.
11. Provide modifications to the following preferred site categories:

- 50% offtaker adjacent to the site
 - Make this either within 1 mile from the project point of interconnection or
 - on the same distribution circuit as the project
 - Municipal letter of support
 - Remove the Regional Planning Commission letter. (They always approve them so take them out of the bureaucracy)
 - Make the letter only required from the Planning Commission not the Select Board. The Select Board, in nearly all cases, relies on the Planning Commission to determine the validity and applicability of the request
12. Undo the 1 cent September 1, 2021 Net Metering rate reduction
- This rate reduction jeopardizes the viability of all future non-residential projects – unless project owners are willing to accept returns of less than 7%, which, despite taking on many market risks, is far less than the 9%+ guaranteed, risk free, return granted to Green Mountain Power

MEDIUM LIFT ACTIONS:

1. Protect our watershed by allowing PV in damp farm fields that are classified as Class II wetlands
 - There are currently many farms that have cultivated fields that are considered Class II wetlands that are particularly vulnerable to watershed impacts from siltation, fertilizer, pesticide, herbicide, and manure runoff. This is a particular threat to the Lake Champlain watershed.
 - All of these impacts would be eliminated if solar arrays were placed in these locations
 - Make a condition that states that there will be no cut and fill allowed in these areas and that reasonable efforts must be made to avoid trenching within the wetland.
 -
2. Stop the utilities from counting battery storage as a grid constraining generation source
 - Is it appropriate that battery storage projects are eating up DG capacity on GMP's solar map? Isn't the point of battery storage to fill in the gaps such as night time and peak demand periods and absorb solar when it is over producing. This should enable more solar not less but by reducing DG capacity it is effectively reducing the adoption of solar by reducing DG capacity at a given circuit.
3. Require GMP to revert back to their interconnection line extension costing methodology that it used prior to August of 2018. On that date interconnection costs nearly doubled overnight. Mandate that the utilities not add profit to interconnection materials and labor and cap labor overhead at 100% of the labor rate
4. Require any CPG intervenor to retain the services and testimony of a subject matter professional expert on any subject that the intervenor is contesting.
 - This will minimize frivolous interventions
 - Create a structure where total resolution time from date of intervention is no longer than four months
5. Remove the 2 cent February 2, 2021 Net Metering rate reduction
 - There is no hope for rapid deployment of in-state renewables without restoring Net Metering rates to 2020 levels or better.
 - Project costs in 2021 have increased over 2020 levels which exacerbates the rate reductions but even without these cost increases the existing rates are not workable

HEAVY LIFT ACTIONS:

1. Increase the NM project size limit from 500kW to 1MW for preferred sites.
 - There are numerous very low impact sites that could support much larger arrays but are limited only because of this rule. This forces the development of other projects that have a higher impact.
 - If there are preexisting solar arrays on expandable sites do not consider the old and new arrays to be “collocated”
2. Create an energy storage program to encourage greater penetration of renewable distributed generation projects
 - This program should be at a level that it is better than breakeven for the project owner
 - The program should be structured so there is minimal operational and revenue stream risk to the project owner
 - Specific requirements should be incorporated into the program such that these energy storage systems will allow for greater circuit and substation capacity for renewables
3. Stop allowing dirty hydro to count as renewable
 - This practice is clearly NOT in compliance with the Global Warming Solutions Act

Respectfully submitted,



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