



December 7, 2023

Charlene Dindo, Committee Assistant

Legislative Committee on Administrative Rules

Submitted via email

Re: Public Utility Commission Proposed Rule 5.100

Dear Ms. Dindo and LCAR Committee Members:

REV has actively participated in the public process for proposed Rule 5.100. It is our position that the rules as proposed should not be approved by LCAR as written and that the PUC should be directed to re-draft section the prohibition on “significant forest clearing” on preferred sites in in Section 5.103 on the grounds that the selected threshold is arbitrary and unjustified.

REV is concerned that the 3-acre clearing threshold proposed by the PUC does not align with meaningful climate or ecological impacts. Because this definition fails to account for the volume of biomass present on a site, forest age, species diversity, habitat connectivity, or other factors that would speak to its value as a source of carbon storage and sequestration or wildlife habitat it needlessly and arbitrarily limits the ability of local and regional planning entities to support renewable generation within their own jurisdictions.

REV has acknowledged that forests play an important role in sequestering and storing carbon. However, given the heavy dependence of the ISO-New England grid on fossil fuels, and Vermont’s interconnection with the market, solar is substantially more effective at reducing atmospheric CO<sub>2</sub> concentration than forests. A 2021 analysis by Synapse Energy Economics has calculated that in New England converting an acre of forest to a solar array will result in 470 tons of CO<sub>2</sub> savings each year.<sup>1</sup> Other assessments point in the same direction.<sup>2</sup> REV is unaware of any scientifically grounded assessment that contests the fact that solar development is more beneficial than maintaining tree cover from a carbon perspective.

The specific carbon balance associated with a particular solar project depends upon a wide variety of factors that the PUC has opted to ignore by creating a simple, area-based threshold. These include how much standing biomass is on the site. By their very nature early successional forests store very little carbon as they contain very little woody biomass compared to mature forests. Clearing at this type of site will incur very little carbon debt and will begin paying atmospheric dividends virtually immediately. A portion of the carbon stored in more mature forests may continue to be stored if the cleared trees are used in wood products. And of course, the emissions that solar offsets depend on the composition of the electrical grid. Currently, the average marginal greenhouse emissions in ISO-New England exceed

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<sup>1</sup> Synapse Energy Economics (2021). “Carbon Dioxide Emissions Tradeoffs: Forests or Solar Panels?” <https://www.synapse-energy.com/carbon-dioxide-emissions-tradeoffs-forests-or-solar-panels>

<sup>2</sup> Eisenson, Matthew (2022) “Solar Panels Reduce CO<sub>2</sub> Emissions More per Acre than Trees” State of the Planet: News from the Columbia Climate School.

700 lbs/MWh of CO<sub>2</sub> meaning that offset emissions far exceed forest sequestration rates.<sup>3</sup> None of these issues are addressed by the acreage threshold approach advanced by the Commission.

Similarly, the habitat value of a specific parcel depends on much more than whether or not there is 10% canopy cover and its connection to other treed areas in the immediate vicinity. Species diversity, the proliferation of invasive species, proximity to existing roads and powerlines, and many more characteristics all impact habitat quality, and none of the issues are addressed by the proposed rule.

Given the limited scale of forest clearing that has occurred to date as a result of net-metered projects – just over 200 total acres as of 2021 according to the Agency of Natural Resources – especially in relation to the clearing that occurs as a result of other forms of development, REV questions the need for this restriction at all. Rather REV echoes the 1/12/2023 Public Comment submitted by the Vermont Association of Planning and Development Agencies that limitations on “significant forest clearing” should be managed legislatively so that they are applied to all types of development equally rather than targeting net metering specifically.

To avoid arbitrary restrictions on net-metering, REV has urged the PUC to utilize a standard that is tied to climate and ecological science. As a starting point, REV suggests separating the climate and habitat concerns into separate provisions. For climate REV would suggest barring a site from preferred site status if it can be affirmatively demonstrated to result in an increase in atmospheric CO<sub>2</sub> over the project’s expected lifespan. As the grid becomes cleaner, this restriction would become tighter reflecting the more limited climate benefits that solar provides in a truly low-carbon environment. If the New England states succeed in dramatically decarbonizing the grid in the next decade, it may be that clearing even a single acre of mature trees would no longer provide a climate benefit. To address habitat concerns, REV would suggest limiting forest clearing in Highest Priority Forest Blocks. These blocks, identified in the Vermont Conservation Design, are precisely the blocks that have the highest habitat and habitat connectivity value for many crucial native species.<sup>4</sup>

Respectfully submitted,

Jonathan Dows,

Deputy Director

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<sup>3</sup> ISO New England (2023). “2021 ISO New England Electric Generator Air Emissions Report”  
<https://www.iso-ne.com/static-assets/documents/2023/04/2021-air-emissions-report.pdf>

<sup>4</sup> Vermont Agency of Natural Resources (2016) “BioFinder 2.0 Component Abstract.”  
<https://anrmaps.vermont.gov/websites/biofinder2016/Documents/ComponentAbstracts/InteriorForestComponentAbstract.PDF>