

July 26, 2019

Massachusetts Department of Energy Resources
Commissioner Judy Judson
100 Cambridge St Suite 1020
Boston MA 02114

RE: Comments on 225 CMR: DEPARTMENT OF ENERGY RESOURCES 225 CMR
14.00: RENEWABLE ENERGY PORTFOLIO STANDARD - CLASS I

Dear Commissioner Judson:

Boreal Renewable Energy Development, founded in 2005, is a Massachusetts-based renewable energy consultancy and development company specializing in wind, PV, hydro and microgrid systems. We hereby offer our comments regarding the proposed rule making on 225 CMR 14.00 Renewable Energy Portfolio Standard Class I.

Biomass inclusion in the RPS adversely impacts renewable zero emission technologies such as wind, solar etc. by increasing the supply of Renewable Energy Credits (RECs) thus lowering the market price. This creates additional financing barriers for the truly zero emission sources and/or lengthens their financial payback if they are already operating as the revenue source from RECs will diminish. In addition, at the Federal level, wind energy will be using its federal tax credits soon and PV shortly thereafter making the economics of development that much more challenging, thus the need for a strong Massachusetts Class I REC market.

In addition, we object to expanding the RPS program to include biomass for a variety of reasons including:

- Relative low heat rate of biomass plants
- CO₂ emissions higher than coal, oil or natural gas
- Energy intensive to harvest and prepare fuel – these secondary emissions will impact the Commonwealth's greenhouse gas inventory
- Replacement trees take several decades to regrow and may not even be required for plant operation
- Use of evaporative cooling towers at biomass power plants can be a consumptive use of drinking water supply creating additional demand on water supply and wastewater treatment systems from boiler blowdown and/or contribute to secondary water resource impact depending on permitted discharge.
- The opaque, unregulated nature of the existing NEPOOL GIS system for REC registration and trading especially regarding RECs entering our market from outside of NEPOOL.
 - Biomass facilities outside of NEPOOL may be able to flood our marketplace with increased supply thus lowering the price as occurred



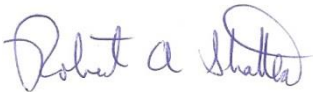
with wind RECs from New York State. It is unclear whether these projects truly had power purchase requirements within NEPOOL as was required to allow these REC transfer/sales and these types of trade could occur under the Biomass program.

Wood biomass is being considered for the RPS, which is a bad idea for several reasons the previous administration decided not to include it, because it isn't carbon neutral. Biomass industry presents itself as 'environmentally friendly' but it considers forest resources not put to productive use as lost income. In addition:

- We are currently in a biodiversity crash ("the sixth extinction") during our lifetime
- Population of wild vertebrates and insects down by 70% from 30 years ago
- Million species may be lost in next decades
- Need for wildlife corridors to be expanded and protected (E.O. Wilson)
- Biomass facilities will contribute to ongoing fragmentation of wilderness and forested areas
- Growing wood chip market will put pressure on forests throughout New England
- Many bird species require significant undisturbed forested area to propagate (e.g. oven bird)
- Wood chip biomass emits particulate emissions
 - PM2.5 levels lead to higher levels of asthma
- Why are biomass plants being planned for disadvantaged communities?

We ask the Baker administration to not add wood chip biomass to the Renewable Energy Portfolio Standard as it does not encourage proven zero emission technology to advance in the marketplace and in effect, impedes their adoption.

Sincerely,



Robert A. Shatten
Principal

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cc: John Wassman, DOER

