

August 7, 2017

Michael Judge
Director, Renewables Division
Massachusetts Department of Energy Resources
100 Cambridge Street, Suite 1020
Boston, MA 02114
ATTN: Samantha Meserve

RE: Comments on the Draft Changes to the Alternative Portfolio Standard Regulations - 225 CMR 16.00

Dear Director Judge,

We are writing to express our concerns about the proposed biomass and biofuels portions of the regulations. We believe that the law that was passed to give incentives for thermal alternative energy was intended to 1) reduce greenhouse gas (GHG) emissions and 2) protect public health. *These proposed regulations related to biomass and biofuels will provide subsidies to activity that will increase GHG emissions, degrade the public's health, and have permanent detrimental impacts on our forest resources.*

GHG emissions will not be reduced. Burning wood for heat produces more carbon emissions than fossil fuels or coal for equivalent heat output. The simple math shows a two to three fold increase of GHG per unit of thermal energy generated:

CO2 EMISSIONS FROM THE ENERGY EQUIVALENT OF ONE TON OF WOOD PELLETS (HEAT OUTPUT)		
HEATING FUEL	EQUIVALENT OF 1 TON WOOD PELLETS	CO2 EMISSIONS (tons)
Wood pellets	1 ton	2.43
Oil	120 gallons	1.15
Propane	170 gallons	1.00
Natural gas	15,130 cubic feet	0.84

Furthermore, the proposed standards for sustainable harvesting are already used routinely with required forest cutting plans. Under the proposed Alternative Portfolio Standard (APS) regulations, a forest cutting project can be deemed "sustainable" simply on the word of a licensed forester - even if this person has no data, documentation, or relevant expertise to back up those findings. This leaves the standard close to meaningless, and, from a practical standpoint, unenforceable.

The harvest retention guidelines written for the Renewable Portfolio Standard (RPS), inadequate though they might be, were an honest attempt to protect forest soils and ecosystem function. Creation of those rules made Massachusetts a leader. The retention standards have been all but abandoned for the purposes of the APS, leaving the new APS standards falling far short of the RPS requirements. This portion of the regulations is a betrayal of the science-driven process that resulted in the RPS rules.

The proposed APS regulations are even more egregious when considering that not only will GHG emissions increase (by replacing much cleaner gas and oil burners), but that our forests as carbon sinks are at risk of being more severely eroded with increased and more intensive harvesting. The APS provides no additional protections for forest resources and all of the benefits that they provide, including carbon sequestering. Furthermore there are no limits on timeframes for harvesting, making phrases “sustainable” or “reducing GHG emissions” meaningless. Cutting and burning less, not more, would be the right direction to move in.

The APS standards for particulate air emissions should be a cause of concern for every resident in the Commonwealth. While we do not agree with replacing existing thermal applications with biomass or biofuels, the standards for PM2.5 inexplicably do not meet the requirements of the SAPHIRE program that pays for wood boilers in our schools. That standard, .03lb/Mmbtu/hr, is obviously achievable - yet the threshold for eligible burners in the APS is as much as .10lb/Mmbtu/hr for wood chip boilers. These PM2.5 emissions represent thousands of times more pollution than that from efficient gas and low sulfur oil burners. Why should the public be forced to pay for this?

PM 2.5 EMISSIONS OF NATURAL GAS AND ULTRA-LOW SULFUR FUEL OIL COMPARED WITH WOOD BIOMASS FUEL (HEAT INPUT)		
HEATING FUEL	PM 2.5 EMISSIONS (lb/MMBTU)	INCREASE OVER GAS OR OIL
Natural gas or ultra low sulfur oil	0.00002	
Okefen state of the art boiler	0.0174	830 times more
SAPHIRE maximum	0.03	1,500 times more
Mohawk High School study	0.07	3,500 times more
APS standard for pellets	0.08	4,000 times more
APS standard for wood chips	0.10	5,000 times more

The health effects of PM 2.5 are well established. This incentive will lead to outright health costs associated with increased heart attacks, childhood and adult asthma rates and cancers, and will cause a general erosion of health for all people who are considered members of the sensitive populations. Those include children, older adults, those with compromised immune systems, those undergoing cancer treatment, people who exercise out of doors, those with diabetes, and those with pre-existing cardiac or pulmonary conditions. We are estimating the health costs dwarf any monetary outcomes

to the recipients of these subsidies. Will DOER have a fund to compensate for the negative health outcomes? On this count alone, the Department ought to be embarrassed by these proposed regulations.

Instead of subsidizing burning we support awarding incentives to other technologies in the program, especially geothermal and solar thermal. In parallel we need to give incentives to put forests in reserves, and pay foresters and others in the industry to work on forest-related projects such as carbon storage research and education about purposefully unmanaged, uncut, intact forest systems. These kinds of actions would benefit public health and the environment, and would be a better jobs creation program for the forest industry.

Respectfully submitted,

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