

# Massachusetts Environmental Energy Alliance

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June 16, 2010

Dear Mr. Cronin,

Thank you for the opportunity to comment on NY DECP proposed policy on determination of what constitutes “sustainably harvested” biomass. The Massachusetts Environmental Energy Alliance is a group that formed to oppose plans to site biomass power in Massachusetts when basic analysis revealed that the levels of forest cutting required to fuel even a small amount of biomass power were absurdly high and would lead to net carbon emissions. In response to analysis conducted by this group and others, the State of Massachusetts commissioned the recently completed Manomet report,<sup>1</sup> which examines the very questions your with which your policy seeks to grapple. Having conducted many of the same analyses as conducted by the Manomet group, and having recently conducted a national-scale assessment of the implications of biomass power for forest cutting and carbon emissions, we are well-qualified to comment on your draft regulations.

As the guidance with the draft policy states, “The purpose of Part 242 is to reduce CO<sub>2</sub> emissions from power plants”. However, the draft policy as written stands no chance whatsoever of constraining CO<sub>2</sub> emissions from biomass power generation. As the Manomet study has concluded, there is no reasonable combination of harvesting and biomass firing technology that will produce forest biomass with net emissions less than those from coal over a 40 year period. Since the point of the New York policy is to ensure that biomass power supports the goals of the NY State CO<sub>2</sub> Budget Trading Program, and since these goals include real reductions in emissions over the next ten, twenty, and thirty years, the news that biomass still emits more net carbon than coal even after forty years should be extremely troubling for anyone who is serious about reducing emissions in reality, and not just on paper.

The documentation with the draft standard states, “the technical premise for this deduction is that biomass can be a low carbon intensity fuel compared to fossil fuels. Emissions from the burning of biomass can result in very low or approximately net zero increases in CO<sub>2</sub> atmospheric concentrations. This assumes that the CO<sub>2</sub> emitted during the burning of biomass has been recently removed from the atmosphere over time via photosynthesis and subsequent carbon storage or sequestration in plants, trees and soil.”

This statement contains two fundamental misunderstandings of how the terrestrial/atmospheric carbon balance is mediated. The time period when CO<sub>2</sub> was removed from the atmosphere prior to its re-release is irrelevant; burning biomass adds net carbon to the air, and the atmospheric carbon balance does not care what “age” the CO<sub>2</sub> is. Further, the “low or zero” emissions referenced in the guidance are impossible if the biomass is from tree harvesting, and the likelihood that whole tree harvesting for

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<sup>1</sup> Manomet Center for Conservation Sciences. 2010. Massachusetts Biomass Sustainability and Carbon Policy Study: Report to the Commonwealth of Massachusetts Department of Energy Resources. Walker, T. (Ed.). Natural Capital Initiative Report NCI-2010-03. Brunswick, Maine.

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biomass fuel will occur, or indeed, is presently occurring, is high. According to the Forest Service,<sup>2</sup> NY has about 1.1 million dry tons of logging residues, and 1.2 million tons of mill wastes. Logging residues are scattered, diffuse, and hard to collect; further, a substantial portion of them need to be left onsite for ecological reasons. As for mill residues, only about 1 – 2% of mill wastes are left unused, nationwide. Thus, any increase in biomass capacity (as is occurring all over the country in response to mandates from renewables standards) will almost certainly require additional tree harvesting, since the other sources of biomass (agricultural residues and energy crops) are either expensive and difficult to collect, or just simply don't exist.

It is urgent that this policy be strong and effective, since there is almost no scenario where burning trees reduces carbon emissions relative to fossil fuel use. No definition of “sustainability” is going to change this. This being said, the draft definition of sustainability is so weak as to be almost meaningless. The requirement for permanence, for instance, is a necessary but not even close to sufficient condition for setting the conditions under which forests can re-sequester carbon that has been removed as fuel. What is required is to ensure that no further harvesting is conducted on this land pending full carbon re-sequestration. A strong definition of sustainability would also set limits on the amount of forest residues that can be removed after a harvest to ensure at least minimal protection of soil nutrient stocks and soil carbon, along with erosion prevention and preservation of cover required by wildlife.

To avoid allowing biomass that adds carbon to the air in excess of fossil fuels, the sustainability criteria need to express the definition of additionality as set out in Searchinger, et al.<sup>3</sup> Biomass CO<sub>2</sub> can only be considered creditable and as having little impact on atmospheric levels if it represents carbon that would have been emitted anyway (as is arguable in the case of mill residues), or, if it represents carbon that if used for energy will not displace and cause leakage of carbon that would be used for food, animal feed or wood products, or that would be sequestered in trees, plants or soils. In other words, if you use an existing useful product for biomass fuel (for instance, harvesting what would have been firewood as biomass fuel), all you are doing is displacing the need for that product somewhere else, and you are causing net emissions to increase.

The science on biomass carbon accounting is moving quickly and outpacing policies such as this draft sustainability standard. To ensure an enduring standard that retains its credibility, and indeed the credibility of the carbon trading program that it seeks to protect, we strongly recommend that the New York sustainability standard at a minimum prohibit increased forest harvesting for biomass fuel.

Thank you for the opportunity to comment.

Mary S. Booth, PhD

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<sup>2</sup> Smith, W.B., et al. 2007. Forest Resources of the United States, 2007. United States Forest Service, Gen. Tech Report WO-78. December, 2008.

<sup>3</sup> Searchinger, T., et al. 2009. Fixing a critical climate accounting error. *Science* 326: 527 - 528.