

Mr. Phil Giudice
Commissioner
Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
Department of Energy Resources
100 Cambridge Street, Suite 1020
Boston, MA 02114

Dear Commissioner Giudice:

I am pleased to have this opportunity to provide comments on the recently-completed *Biomass Sustainability and Carbon Policy Study*. Maine applauds the initiative taken by Massachusetts to encourage research into biomass sustainability, and the rigor with which Manomet has conducted that research. Manomet has previously participated with Maine DEP and the Maine Forest Service in other important forestry policy efforts, including the development of proposed forestry offsets for the Regional Greenhouse Gas Initiative.

The results of the Manomet study have been widely interpreted and reported. Some analysts have focused on the study's findings of long-term payback of carbon debt under certain biomass source and combustion scenarios, especially compared to the payback of carbon debt associated with coal combustion. Maine does not agree with those who argue that the carbon footprint for the combustion of forest biomass is as bad as coal under all scenarios. In fact, numerous researchers -- including the World Energy Council, the U.S. National Renewable Energy Laboratory, and the International Energy Agency -- have documented significant reductions in greenhouse gas emissions when biomass for energy is compared to various fossil fuels.^{1,2,3}

Maine recognizes that the Manomet study was focused on very limited scenarios of biomass use, in both geography and forest management practice. Therefore the findings of the research cannot be accurately interpreted beyond those scenarios, and should certainly not be extended to a regional context. Maine believes that the best solutions to our energy programs will be found in policies that recognize our regional energy inter-dependence and our extensive regional resources for renewable energy, not in policies that are constrained by geographical boundaries and jeopardize existing economic relationships.

As Massachusetts considers changes to its biomass, RPS, and REC policies, we recommend you distinguish between biomass units on the basis of whether the fuel is sustainably harvested and the forestlands sustainably managed. For example, in developing eligibility guidelines for the USDA Biomass Crop Assistance Program in Maine, the Maine Forest Service established sustainability criteria that would both promote the use of renewable energy products and protect Maine's forests. We also recommend that policies should consider the efficiency of combustion and the use of the energy produced at new biomass facilities, so that more efficient combustion units and advanced biomass gasification/combined heat and power units would be retained in future policies. Any possible new policy should not apply to existing units which should be rewarded for improvements in their current efficiency and pollution controls under a revised scheme to recognize the existing investment and existing generation capacity.

In response to the publication of the *Sustainability Report*, there has been much talk about biomass carbon neutrality. Maine agrees with many U.S. and international organizations that biomass from forests that are sustainably managed and harvested is very close to carbon neutral. However, while this is an important aspect in policy considerations, Maine believes that

what is at issue is more than carbon neutrality; it is the sustainability of our most important forest and aquatic ecosystems.

Without support for sustainable harvest/management principles and the wise economic development of our forest products industry, including renewable biomass for heat and energy, the great forests of the Northeast and Maine will continue to be, as they are now, subdivided for development. In addition to hampering our efforts to move away from a fossil-fuel based economy, this will certainly degrade the ecological values of what are now intact and sustainable forest systems.

Maine looks forward to collaborating with Massachusetts and our other regional partners, both national and international, to develop energy policy as well as renewable and sustainable energy sources that will meet our energy needs.

Sincerely,

David P. Littell, Commissioner

¹ World Energy Council. *Comparison of Energy Systems Using Life Cycle Assessment*. London, UK. 2004.

² National Renewable Energy Laboratory. *Biomass Power and Conventional Fossil Systems with and without CO₂ Sequestration – Comparing the Energy Balance, Greenhouse Gas Emissions and Economics*. Golden, CO. 2004.

³ Jungmeier, G. *Greenhouse Gas Balance of Bioenergy Systems – A Comparison of Bioenergy with Fossil Energy Systems*. In Proceedings of the Workshop: Bioenergy for mitigation of CO₂ emissions: the power, transportation, and industrial sectors. IEA Bioenergy, Graz, Austria. 1999.