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Samantha Meserve  
Department of Energy Resources  
100 Cambridge St., Suite 1020  
Boston, MA 02114

Via email: [Samantha.Meserve@state.ma.us](mailto:Samantha.Meserve@state.ma.us)

**Re: APS Renewable Thermal Regulations (225 CMR 16.00)**

Dear Ms. Meserve:

On behalf of Mass Audubon, I submit the following comments on the Department of Energy Resources' (DOER) draft regulations to include renewable thermal in the Massachusetts Alternative Portfolio Standard (APS) pursuant to Chapter 251 of the Acts of 2014.

Mass Audubon is very concerned about climate change and supports incentives for clean, renewable energy and energy efficiency. Any associated regulations, including the APS regulations for woody biomass, must contribute measurably to progress toward meeting the greenhouse gas (GHG) reduction targets of the Global Warming Solutions Act.

We commented to the legislature as the APS bill made its way through the legislative process. Provisions requiring high efficiency, greenhouse gas lifecycle standards and forest harvest sustainability standards are important. We supported the inclusion of these provisions in the statute, and it is essential that the full intent be implemented through enforceable mechanisms applied through the regulations.

The draft regulations are inadequate in several key respects in regards to the woody biomass provisions of the statute. The woody biomass provisions of the proposed regulations should be withdrawn and rewritten, with additional public comment prior to final promulgation.

In particular, the regulations as proposed do not comply with the following provisions in Section 2 of the Act:

- biomass technologies must meet “a requirement of 50 per cent reduction in life-cycle greenhouse gas emissions” and
- “the department shall adopt any existing or new biomass fuel sustainability standards if deemed appropriate by the department after a public comment process.”

The proposed regulations 225 CMR 16.05(4)(d)(iii) would allow unlimited quantities of residues from land clearing for development to qualify as eligible fuel that is automatically assumed to meet the requirement of 50% reduction in GHG emissions. Woody material from land clearing is not carbon neutral, since the loss of forest on the development site is permanent, and carbon is released from soils following clearing, as well as from the burned material itself. While we understand the theory that these trees would be removed in any event, in reality this program could actually incentivize additional land clearing, or more extensive clearing of lots during development. Development of greenfield sites is already often less costly and easier than redevelopment of vacant developed parcels. By increasing the market demand for biomass from land clearing, DOER will be further shifting the financial balance in favor of greenfield site development by making land clearing even cheaper and potentially profitable as a stand-alone activity.

The requirement that development sites that are the sources of this material have obtained all required state and local permits in no way addresses this concern, since state permits do not address loss of carbon sequestration capacity and most municipalities do not have stringent (or often any) requirements for retention of natural vegetation on development sites. As written, the regulations would even allow clearcutting of a site and the use of the material for eligible fuel in instances where a permit is in hand but the financial means to actually build the development is not in place. This could result in large forest removal operations with no oversight from the Department of Conservation and Recreation (DCR), since land clearing preparatory to development is not subject to the forest cutting practices regulations.

We have seen many concerns regarding large-scale forest clearing for construction of ground-mounted solar arrays because the financial incentives do not adequately address the higher cost of rooftop solar arrays and parking lot canopies. DOER needs to be careful not to imbed similar unintended consequences into the APS system.

The regulations also do not provide any means of quantifying or ensuring compliance with the 50% GHG reduction requirement in relation to other eligible woody biomass fuels including forest harvesting or salvage. The proposed *Guideline on Biomass, Biogas, and Biofuels for APS Renewable Thermal Generation Units* allows the use of several different systems for certifying the sustainability of woody biomass fuel, including DCR long-term Forest Cutting Plans, the Forest Stewardship Council, and the Program for the Endorsement of Forest Certification, which includes the Sustainable Forestry Initiative and American Tree Farm System. No analysis has been presented for public review documenting in any way that these methods would in fact result in 50% lifecycle GHG reductions for fuel from those sources.

The mere reference to a series of third-party certification systems in a guidance document that can be changed at any time without public review does not fulfill the statutory requirement for development or adoption of biomass fuel sustainability standards following public comment. The Guideline also states that DOER will work with the Department of Agricultural Resources to add provisions for downed wood and soil conditions to the wood products specifications of the Commonwealth of Massachusetts Quality Program, so that that program can be added to the list of approved certification programs. While it would be a positive step to add such provisions to that program, in the absence of details provided for public review, this does not meet the requirements of the statute. The regulations lack specificity in regards to retention of downed

woody debris, tops, and other material for sustainability of ecological function and soil productivity.

The regulations also fail to provide any measurable system for tracking the GHG or forest sustainability outcomes of actual woody biomass fuels over time. The proposed regulations at 225 CMR 16.05(1)(e) (Net Carbon Dioxide Emission Rate) require DOER in consultation with the Department of Environmental Protection to publish net CO<sub>2</sub> average emission rates every two years, including carbon emissions associated with fuel processing and thermal delivery. But woody biomass would be exempt:

*An APS Renewable Thermal Generation Unit using either Eligible Biomass Woody Fuel, or pyrolysis oil or biogas derived from Eligible Biomass Woody Fuel pursuant to 225 CMR 16.05(1)(a)6.a.v. shall not be subject to the net carbon dioxide emissions rate in 225 CMR 16.05(1)(e), but instead subject to the net greenhouse gas emission requirement in 225 CMR 16.05(4)(d)(iii).*

As noted above, 225 CMR 16.05(4)(d)(iii) provides no system for accounting for the GHG lifecycle effects of woody biomass fuel, and instead allows unlimited quantities of some sources (e.g. land clearing debris) that are neither carbon neutral nor sustainable.

The proposed 225 CMR 16.05(1)(e) should be amended to provide a commitment to accounting and periodic public review of GHG emissions from woody biomass fuels.

Massachusetts and the entire Northeast region are fortunate to have extensive forest cover, providing a host of valuable ecosystem services including carbon sequestration, air and water quality protection, flood prevention, fish and wildlife habitat, and tourism and recreational values. The carbon and water management functions of forests are even more important in the face of climate change. The proposed regulations on woody biomass renewable incentives should be withdrawn and rewritten to provide clear and measurable assurances in regards to GHG reductions and forest sustainability, as required by the statute.

Thank you for considering these comments.

Sincerely,



John J. Clarke  
Director

*Mass Audubon works to protect the nature of Massachusetts for people and wildlife. Together with more than 100,000 members, we care for 35,000 acres of conservation land, provide school, camp, and other educational programs for 225,000 children and adults annually, and advocate for sound environmental policies at local, state, and federal levels. Founded in 1896 by two inspirational women who were committed to the protection of birds, Mass Audubon has grown to become a powerful force for conservation in New England. Today we are respected for our science, successful advocacy, and innovative approaches to connecting people and nature. Each year, our statewide network of wildlife sanctuaries welcomes nearly half a million visitors of all ages, abilities, and backgrounds and serves as the base for our work. To support these important efforts, call 800-AUDUBON (283-8266) or visit [www.massaudubon.org](http://www.massaudubon.org).*

*Protecting the Nature of Massachusetts*