



January 21, 2016

Environmental Protection Agency
EPA Docket Center
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Re: Proposed Model Trading Rules – Docket ID No. EPA-HQ-OAR-2015-0199

Dear Administrator McCarthy:

Thank you for opportunity to comment and for your work on the Clean Power Plan and efforts to create transparency and gather input from various stakeholders. Dogwood Alliance expresses strong opposition to forest-based biomass being included as suitable compliance pathway in Federal Implementation Plan or Model Trading Rules for the Clean Power Plan. The Clean Power Plan has the ability to create a lasting legacy of transformation. It is evident that the ideals of the CPP are grounded in a moral obligation to citizens and future generations, but the inclusion of biomass takes us backwards and may actually undermine its intended purpose.

Burning Wood for Electricity Does Not Reduce CO₂ Emissions

Burning wood and other forms of biomass in a power plant produces about 3,000 pounds of CO₂ per megawatt-hour—an emissions rate that is approximately fifty percent higher than that of a coal-fired power plant. Accordingly, biomass combustion does not reduce CO₂ emissions and should not be considered part of the Best System of Emissions Reduction (BSER) envisioned in the Clean Power Plan.

Biomass-based energy generation is fundamentally flawed due to the significant time delay in which emission reductions can be achieved, the high degree of uncertainty for adequate post-harvest regrowth ever happening in an ever changing climate, and extreme lack of accountability of the offset scheme from which biomass combustors blindly take credit.

It's indisputable that biomass power plants emit more CO₂ per megawatt-hour than coal or gas plants. Co-firing biomass with coal increases CO₂ emissions and decreases facility efficiency, making even the coal burn less efficiently. This is contrary to EPA's Building Block 1 for the CPP, which is to *increase* coal plant efficiency.

Thus, if EPA allows bioenergy as compliance under the FIP/MTR, the agency will be the peculiar position of claiming that biomass reduces emissions when it actually increasing them. The 111(d) rule is supposed to reduce emissions from the existing power sector, but co-firing biomass will, demonstrably, increase the heat rate, decrease facility efficiency, and thus increase the tons of CO₂ that are emitted per megawatt-hour of electricity generated.

EPA is requiring that to be qualified, biomass must be "*demonstrated as a method to control increases of CO₂ levels in the atmosphere,*" but the agency hasn't established required parameters and methods for how states might accurately demonstrate this and we are very concerned that this ambiguity will engender more states making it a priority to look to forest-based biomass given a perceived relative ease in meeting a definition for what it might mean to be qualified.

Soil Carbon Emissions Are Significant

Emissions from soil disturbance due to harvesting trees can turn forests into carbon sources instead of carbon sinks given that newly replanted forests often emit carbon for years, despite the rapid growth rate of young trees. This is due to heterotrophic emissions after a stand is logged. In Eastern Oregon, for example, Oregon State professor Dr. Beverly Law found that a replanted clear-cut gives off more CO₂ than it absorbs for as much as 20 years[1] In addition, new science related to soil carbon emissions and biomass harvesting shows that these types of intensive harvests significantly reduce organic carbon in soil layers.[2] Thus, forests on short to mid-term rotations can essentially turn forests from carbon sinks to carbon sources.

Diverting Important Momentum for Wind, Solar, Efficiency, etc.

By enabling and promoting forest-based biomass as a compliance pathway, EPA is potentially diverting continued momentum for scientifically-grounded and non-controversial solutions such as wind, solar, energy efficiency, tidal, etc. It is our hope that the FIP/MTR will contain the kinds of incentives and clear guidance that will spur continued technological innovations and investments in these proven and less controversial renewable energy pathways that further bring down the costs of these important technologies and support their widespread expansion.

Flawed Policies Can Have Lasting Effects – A Case Study in the Southeast US

EPA only needs to look to the Southeast to see evidence for what happens when you treat bioenergy as having zero emissions. Driven by flawed renewable energy directives in the EU (with the UK being a primary driver), the volume of wood pellet exports from the US Southeast have quadrupled in the past several years. Projections of continued growth in Western Europe led by the UK are staggering and are estimated to jump from 5 million tons in 2015 to over 35 million tons in 2020.[3]

Countless investigations have directly linked wood pellet manufacturing in the Southeastern US to the accelerated logging of forests, including in sensitive ecosystems such as mature bottomland hardwood and wetland forests[4]. This evidence has been widely covered by high-profile national and international media outlets including the Wall Street Journal, Washington Post, New York Times, Daily Mail, Financial Times, and BBC TV.

Still, industry insists they use “logging residuals”, “scraps” and “waste wood”. Yet, it is estimated that 75% of the feedstock used to manufacture wood pellets in the Southeast comes from ‘roundwood’, or whole trees[5]. These facilities simply cannot reach their desired output with residuals, byproducts, and scraps as they claim. In fact, USFS reports project not only accelerated logging across the region but also the loss of natural forests to plantations, if the biomass industry continues to expand[6]. These trends in wood pellet manufacturing are especially troublesome given recent global maps showing that forest disturbance from logging in the Southeastern US was four times that of South American rainforest from 2000-2012[7].

Communities Are Concerned and Organizing

Dogwood Alliance appreciates the emphasis that EPA has placed on advancing equity and opportunity through the implementation of the CPP. Yet, by allowing forest based biomass as a compliance pathway in the FIP/MTR the CPP is not achieving this goal. It has been shown by multiple studies that biomass incineration creates fine particulate pollution that impacts human health[8], leading to significant respiratory problems and disrupting residents living near the facilities. The constant noise, at all hours, of the facility is disrupting the peace and sleep of residents of rural communities. The increased truck traffic from the facilities is clogging up the roads, damaging publicly funded roadways, and poses a serious safety concern to local commuters. This industry is not the type of economic development that our country needs. Dogwood Alliance is increasingly being asked to support efforts to push back proposed facilities and many residents see this as an environmental justice concern.

The EPA must prioritize investments in energy efficiency and truly clean energy in low-income communities and in just transition for communities recovering from dirty

industries as we move toward a clean energy economy. Equity must be at the center of a just transition to a clean economy. Biomass is not part of this solution.

Beyond biodiversity, standing Southern forests remove carbon from the air, provide critical flood control and protect water resources, services that are critical to both achieving carbon emission reductions necessary for avoiding the most catastrophic effects of climate change and ensuring community resiliency in the wake of a changing climate. Forests represent our best defense against climate change. Now is not the time to open the floodgates for forests to be used as fuel for electricity. Instead, we need to accelerate efforts to protect our forests and improve ecosystem health.

We urge EPA to hear the concerns of national, regional, and local organizations on this issue by not building forest-based bioenergy into the Federal Implementation Plan.

[1] Forest soil respiration across three climatically distinct chronosequences in Oregon J.L. CAMPBELL* and B.E. LAW *Biogeochemistry* (2005) 73: 109–125,
<http://www.springerlink.com/content/p01p01602u63g237/fulltext.pdf>

[2] <http://www.nature.com/articles/srep15991#references>

[3] <http://www.wwrgroup.com/en/biomass-market/the-wood-pellet-market>

[4] <http://www.dogwoodalliance.org/wp-content/uploads/2015/06/Wetlands-Logging-Investigation-Flyer.pdf>

[5] European Commission Workshop Briefing Paper Sept 2015: *Study on the Environmental Implications of the Increased Reliance of the EU on Biomass for Energy Imported from North America*

[6] http://www.srs.fs.usda.gov/pubs/gtr/gtr_srs202.pdf

[7] <http://www.sciencedaily.com/releases/2013/11/131114142123.htm>

[8] <http://www.pfpi.net/wp-content/uploads/2011/06/ala-energy-policy-position.pdf>