



Statement of Richard Wiles

Partnership for Policy Integrity

EPA Public Hearing on Three Year Permitting Deferral for Biomass Facilities

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I am Richard Wiles, Senior Strategist at the Partnership for Policy Integrity. PFPI provides scientific and technical assistance to citizens concerned about biomass power generation across the country. Our mission is to bring clear-eyed science and integrity to environmental and energy policy.

Our position on the deferral is straightforward: EPA does not need three years to assess the greenhouse gas implications of burning biomass for energy. Creating a three holiday for biomass power will spur construction of a fleet of permanently unregulated plants that are huge greenhouse gas emitters.

We already have adequate science to conclude that the over 115 standalone biomass plants currently proposed, and the many proposals for biomass co-firing in coal plants, will not be carbon neutral in any timeframe meaningful to addressing climate change. EPA's policies need to reflect that fact, and they need to reflect it now.

At PFPI we monitor biomass electricity generation, and of the over 115 proposed facilities we have looked at across the country, all of them plan to use wood as fuel. Most claim that they will burn slash and left-overs from forestry operations, but in every case that we have analyzed the available slash is dramatically insufficient to fuel the plants at the scale proposed. This is borne out by data from the US Forest Service,¹ the same data that the National Renewable Energy Laboratory used to estimate biomass availability.²

To function, these plants will burn trees, and in Ohio and North Carolina, American Electric Power (AEP) and Duke Energy have been kind enough to admit just that.

In Ohio, AEP calculates³ that it would need to cut 730,000 acres of forest on a 40 year rotation to power a single 200 MW biomass facility. The Public Utilities Commission in Ohio has approved over 2,100 megawatts of biomass energy, mostly for co-firing in coal plants. If these projects move forward, they will require over 20 million tons of wood annually, or the equivalent of clearcutting 225,000 acres of Ohio's forests annually. The

¹ Smith, W.B., et al. 2007. Forest Resources of the United States, 2007. United States Forest Service, Gen.Tech Report WO-78. December, 2008.

² Milbrandt, A. 2005. A geographic perspective on the current biomass resource availability in the United States. NREL Technical Report NREL/TP-560-39181.

³ American Electric Power: 2010 AEP-East Integrated Resource Plan, 2010 -2020.

2,100 MW of biomass power approved in Ohio represents about 6 percent of the in-state electrical generating capacity.⁴

At this scale of implementation, biomass electricity generation means burning whole trees. There is no other source of fuel that is even remotely available at the quantities required. Nobody is proposing to grow it, nobody is proposing to use it.

That was the case in Massachusetts where opposition to three proposed biomass, tree burning power plants led to the Manomet Study.

The conclusions of this multi-stakeholder review are clear and unambiguous, and directly relevant to the agency's charge: Burning trees is not carbon neutral in any relevant sense of the term, meaning any timeframe relevant to the overall goal of reducing carbon emissions to help moderate climate change. In fact, burning trees dramatically increases carbon emissions above those from fossil fuels.

In Massachusetts it would take 40 years of regrowth for net carbon emissions from biomass to achieve parity with emissions from burning coal for those same 40 years. It would take more than a century to achieve parity with natural gas. True carbon neutrality, where the carbon from burned trees that was pumped into the atmosphere has actually been recaptured in forest regrowth, will take longer still.

The science and modeling approach that underlie the Manomet study have not been effectively challenged by industry scientists, except those who ignore the critical role played by forests in ongoing carbon sequestration.

The problem is not hard to demonstrate.

Imagine a 50,000 acre forest. Prior to cutting we would have 50 thousand acres of mature, growing trees all pulling carbon out of the atmosphere. Every year we cut and move 1,000 acres worth of tree carbon into the atmosphere. At year 20, we would have cut and injected 20 thousand acres worth of tree carbon into the air. We would then have just 30 thousand acres of mature trees pulling carbon out of the atmosphere, and 20 thousand acres of saplings representing just a fraction of the carbon that was being captured by and stored in the mature trees on this acreage before they were cut.

This is clearly not a carbon neutral situation. This would continue through year 50 when the entire forest would have been cut, its carbon injected into the atmosphere, and its carbon replaced with trees in various stages of maturity.

This is not a difficult concept to understand. But it can be made more confusing than it needs to be, and the industry is masterful at this, as was played out recently in Washington State. The notion advanced by the State Department of Natural Resources was that we need to look at the trees that were *not* cut for biomass burning across the

⁴ Energy Information Administration, State Historical Tables for 2009: Existing capacity.

whole state, and as long as the total mass of trees held steady, then burning trees to make electricity was carbon neutral.⁵

Very clever, but very wrong. Claiming credit for trees growing in a large area doesn't diminish that impact of cutting and burning them in a small area; overall there is less carbon held in trees and more in the atmosphere than there would have been without the cutting and burning. If it were valid for energy companies to claim carbon credit for the trees they don't cut, the coal industry could claim a smaller carbon footprint due to all the trees growing in our national parks.

Does the Agency need three years to determine whether or not burning biomass is carbon neutral? No it does not. The state of Massachusetts did a fine job of it in nine months.

Waiting three years will have serious real world effects. There are currently more than 115 biomass electricity generating facilities proposed, as well as multiple proposals for co-firing biomass in coal plants. As things stand now, every plant built during that time will be a permanent carbon polluter, exempt from future Clean Air Act rules. If the agency is going to take three years to study this issue, it should either place a moratorium on biomass electricity generation during that time, or it should make clear that any plant built during this time will be subject to the rules when they are final.

Perhaps the agency needs three years because agency scientists realize that the issue of whether biomass electricity generation is carbon neutral is not a question of science, it is a question of policy.

The central issue, and indeed the only real question before the agency when it comes to the carbon neutrality of burning biomass, is the time frame.

In the abstract, whether you have a three-year rotation with a dedicated energy crop, or a century long rotation when you are burning trees, both are carbon neutral. But one accelerates climate change for the next 40-plus years compared to fossil fuels, and has no place in any set of policies designed to reduce greenhouse gas emissions.

That's the call you need to get right.

⁵ To see the letter from Mark Harmon, Tim Searchinger, and William Moomaw about why this approach is incorrect, see http://www.pfpi.net/wp-content/uploads/2011/03/Harmon_Searchinger_Moomaw-Letter.pdf

