



Testimony from the Partnership for Policy Integrity
to the Washington DC City Council Committee on Government Relations
on
B20-418, the Renewable Energy Portfolio Standard Amendment Act of 2013
October 29, 2013

Dear Chairman McDuffie and Members of the Committee on Government Operations:

The Partnership for Policy Integrity (PFPI) is a Massachusetts-based environmental organization with expertise on biomass energy and its environmental and health impacts. We were involved in Massachusetts during the formulation of a science-based standard that restricts renewable energy credits (RECs) for biomass energy to high efficiency facilities that have a reduced net greenhouse gas emissions impact.

Accordingly, we strongly support B20-418, the Renewable Energy Portfolio Standard Amendment Act of 2013, as an effective means of also moving the DC RPS away from highly polluting biomass energy and toward clean renewable energy.

As currently defined, the DC RPS gives “clean” energy credits to some of the most polluting facilities that exist, with CO₂ emission rates per megawatt-hour that exceed even coal plants, and emissions of conventional pollutants that can also exceed coal.

Typical CO₂ emission rates for facilities:

Gas combined cycle	883 lb CO ₂ /MWh
Gas steam turbine	1,218 lb CO ₂ /MWh
Coal steam turbine	2,086 lb CO ₂ /MWh
Biomass steam turbine	3,029 lb CO ₂ /MWh

Efficiency requirements – vital for reducing emissions of all kinds

DC’s Renewable Energy Portfolio Standard Amendment Act, if enacted, would rebalance allocation of subsidies to favor cleaner technologies like wind, and the kind of truly efficient biopower that can have a reduced greenhouse gas impact. By requiring higher efficiency for bioenergy, facilities will have to wring more “useful” energy out of each unit of fuel, which in turn will truly displace fossil fuels – something that is not happening now at many of the bioenergy facilities currently subsidized by DC’s RPS, as they burn waste as much for disposal as to actually generate power (if power generation were their first concern, they would not be burning black liquor and other low-energy content materials – they’d be burning more efficient fuels). Requiring greater efficiency doesn’t just reduce CO₂ emissions per unit “useful” energy; it will reduce emissions of particulate matter, nitrogen oxides, and other pollutants as well.

Prohibition on burning whole trees – helps protect forests and carbon sequestration

An amendment proposed to the bill would also reduce net CO₂ emissions by making whole trees an ineligible fuel to be burned at qualifying facilities. We strongly urge that this amendment be adopted. It is

important because burning trees for energy not only emits more CO₂ per megawatt-hour than fossil fuels, but also liquidates trees that had a future of CO₂ sequestration ahead of them. The prohibition on whole trees is a necessary step, because although the bioenergy industry frequently claims they only burn waste wood, “waste” is in the eye of the beholder. For instance Dominion Energy, which owns the Altavista and Pittsylvania biopower plants (currently qualified under the DC RPS), has testified to EPA that waste wood “*to us means forest materials including residues (tree tops, non-merchantable sections of stem, branches, and bark), small trees and other low value materials.*”¹

The need to limit the use of whole trees as biomass fuel is made apparent by the scale of the emerging demand. Dominion’s Altavista plant used to co-fire biomass with coal, but the company has just finished fully converting it to biomass (for 51 MW), and is about to convert two more coal-burners, the Hopewell and Southampton facilities, for a combined total of 153 MW. According to their Integrated Resource Plan, Dominion also plans to co-fire at least 60 MW of biomass at the Virginia City Hybrid Plant, and will be contracting with another company to put another 20 MW of biomass energy on the grid as part of their renewable power program. Dominion’s old Pittsylvania wood-burner is 83 MW. Once these plans are completed, combined wood use by the Dominion facilities will be around 4 million tons a year, or the equivalent wood that would be yielded by clearcutting 50,000 acres of forest a year.

Given these developments – and given that there are another *ten* (non-Dominion) black liquor and wood-burning facilities currently qualified for the DC RPS – this legislation is the single most effective measure to prevent the DC RPS from being irrevocably swamped by tree and waste combustion.

Biomass power: small energy gain, large CO₂ emissions

While Dominion is not the only company generating bioenergy that qualifies for DC’s RPS, it is by far the largest, so it is worth looking at the effect that CO₂ from its biopower facilities is having on Virginia, and by extension, Washington DC. According to the Energy Information Administration, Virginia’s fossil-fueled utility electricity sector generated 52.9 million megawatt-hours of electricity in 2011. Once Dominion’s new bioenergy capacity is all online (Pittsylvania plus the new facilities) these facilities at fulltime operation will represent a 4.9% bump in electricity generation, but will cause an 18.6% increase in power sector CO₂ emissions over the 2011 baseline. This cost-benefit analysis is further skewed in that there are no public “benefits” to generating power by burning trees and waste.

Health organizations: biopower should not receive renewable energy subsidies

Facilities burning waste wood and black liquor are literally some of the dirtiest facilities that exist. There are real health consequences associated with emissions from bioenergy, which is why the Massachusetts Medical Association opposes bioenergy as an “unacceptable threat to public health,” and the American Lung Association opposes making bioenergy eligible for renewable energy subsidies and tax breaks. Commenting on federal renewable energy legislation, the ALA sent a letter to Representatives Waxman and Markey on the American Clean Energy and Security Act, June 24, 2009, stating

¹ Pamela F. Faggert, Dominion Resources Services, Inc. Comments to the Science Advisory Board biogenic carbon emissions panel on its draft advisory report regarding EPA’s accounting framework for biogenic CO₂ emissions from stationary sources. March 16, 2012.

"The legislation should promote clean renewable electricity, including wind, solar and geothermal. The Lung Association urges that the legislation not promote the combustion of biomass. Burning biomass could lead to significant increases in emissions of nitrogen oxides, particulate matter and sulfur dioxide and have severe impacts on the health of children, older adults, and people with lung diseases."

Dominion's new "clean" biopower will pollute communities

Expansion in the biopower sector is increasing air pollution. Returning to just a portion of the new bioenergy capacity that Dominion is bringing online, and for which the company expects to collect subsidies, construction permits² for the Altavista, Southampton and Hopewell facilities reveal that their combined permitted emissions in tons per year (tpy) will be:

253 tpy of particulate matter
114 tpy sulfur dioxide
1,237 tpy nitrogen oxides
2,748 tpy carbon monoxide
129.4 tpy volatile organic compounds

As coal plants, these facilities were barely operating. As biomass power plants, they'll pollute the air in their communities all year round, while Dominion collects "clean" energy subsidies.

Excessive emissions – proof from permits

The following table shows pollutant emissions from some of the biopower facilities currently qualified for the DC RPS. These are allowable emissions numbers, taken directly from facility air permits, and are not necessarily representative of actual emissions, but as air permits are the sole enforceable means for limiting emissions, these values are important.

Facility	State	Source of emissions	PM	NOx	CO	SOx	VOCs
Smurfit-Stone Hopewell Mill	VA	Black liquor recovery boiler	301			2,768	
PH Glatfelter Chillicothe Mill	OH	Power boiler burning black liquor and fuel oil	164	713	1,183	496	113
International Paper Franklin Mill	VA	Facility-wide emissions (process and power boiler)	804	3,000	2,568	7,980	694
Smurfit-Stone West Point Mill	VA	No. 5 recovery boiler	227	754	969	1,284	146
Pittsylvania Station	VA	Wood-fired boiler	96	482	1,687	77	338
Piedmont Green Power	GA	Wood-fired boiler	86	228	227	60	25

² Available at <http://www.deq.state.va.us/Programs/Air/PermittingCompliance/Permitting/PowerPlants/BiomassPermits.aspx>

Considering that the qualification of bioenergy for subsidies displaces true no-emissions wind and solar power, and considering the health impacts of the large bioenergy emissions above, the bioenergy industry should probably be paying the *public* for the right to operate – not the other way around.

Disqualifying construction and demolition waste – prudent and protective

An amendment to the bill would make use of construction and demolition wood as fuel ineligible for subsidies. We strongly support this amendment, as recent developments at EPA highlight the prudence of communities taking steps to ban the burning of contaminated fuels. A new “waste” rule from EPA blurs the line between “waste,” (which is required to be burned in an incinerator with more protective emission controls), and “biomass,” (which can be burned in facilities with very few emission limits). EPA has shown very little ability to stand up to the bioenergy industry, which naturally wants to be allowed to burn a variety of materials, no matter how contaminated. Of special concern is construction and demolition waste, which even after sorting can contain pressure-treated wood (containing arsenic, chromium, and copper) and other contaminants that lead to emissions of dioxins, lead, and mercury as well as carcinogens like benzene and formaldehyde.

Under EPA’s new waste rule, a biomass facility can burn contaminated fuels, including construction and demolition wood, as long as concentration levels of contaminants are “comparable to or less than the levels in the traditional fuel the unit is designed to burn, whether wood or another traditional fuel.”

- “Designed to burn” means, “can burn or does burn, and not necessarily permitted to burn.” EPA states, “The agency has also determined that restricting comparisons to traditional fuels the unit is permitted to burn is unnecessary. The fact that a facility is not currently permitted to burn a particular traditional fuel does not mean it could not be permitted to burn that traditional fuel in the future. For this reason, we do not believe it is reasonable to limit the comparison to permitted traditional fuels.”
- And that “traditional fuel” can be the dirtiest coal known - “The EPA acknowledges that the revisions adopted as final in today’s rule would allow C&D wood contaminant levels to be compared to the highest contaminant levels for coal.”
- Nor does EPA think fuel testing should be routinely required - instead, “expert opinion” is sufficient. EPA states, “The agency wishes to emphasize, however, that determinations that the cellulosic biomass used as a fuel or ingredient is clean, do not presuppose any testing of contaminant levels. Persons can use expert or process knowledge of the material to justify decisions regarding presence of contaminants.”

In other words, EPA has just opened the door to *even more* burning of contaminated fuels – fuels that are admittedly as contaminated as coal – fuels that continue to be subsidized by ratepayers in the name of “clean” energy. In the face of such lax federal regulation, it falls to states and municipalities to ban the use of any contaminated fuels in order to reduce emissions of the most toxic substances from biomass burning.

Summary

The bioenergy industry has no doubt told the Council that bioenergy is “clean” and “carbon neutral.” The facts show that neither claim is true. We hope that by adding our evidence to that of others in support of Renewable Energy Portfolio Standard Amendment Act, we can convince the Committee to support this bill and the suggested amendments. Enacting this bill would reclaim renewable energy, and give DC’s RPS a chance to live up to its intended purpose.

Thank you for the opportunity to submit testimony on this important piece of legislation.

Mary S. Booth, PhD

A handwritten signature in black ink that reads "Mary S. Booth". The signature is fluid and cursive, with "Mary" on the first line and "S. Booth" on the second line.

Director, Partnership for Policy Integrity