PFPI
driven by data

Office of Management and Budget
Office of Information and Regulatory Affairs
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Dear Mr. Frey, July 22, 2015

Thank you for meeting with us last week to discuss bioenergy in the Clean Power Plan. We wanted to follow up with an example of how not counting bioenergy and waste emissions distorts CPP estimates and creates perverse incentives. These examples underscore that bioenergy and waste energy cannot serve as the best system of emissions reduction for climate pollution from the power sector.

Your colleague asked about "non-forestry" bioenergy emissions. While we and others have emphasized the CPP's treatment of wood-burning power plants as having zero emissions, it has gone little remarked that the CPP also treats municipal waste burning as having zero emissions. In fact, in the proposed rule, it appears that EPA has treated *all* waste burning – even fossil-fuel derived materials such as plastic and tires – as having zero emissions. EPA's rate equation[1] fails to count these emissions because the numerator does not include emissions from non-covered sources like municipal waste incinerators or biomass power plants, but the denominator does count the electricity generated at these facilities.

The example below,[2] from Maine, shows how excluding emissions from biomass and waste burning affects EPA's baseline emissions rate estimate. Maine generates a high proportion of its electricity from burning wood, and also has four incinerators that burn municipal waste.

EPA's estimate for covered sources only - counts 1,795,630 tons of CO_2 from EGU's in numerator:

$$\frac{lb\ CO2\ (EGU's)}{MWh\ (EGU's)} = \mathbf{873}\ lb\ CO2/MWh$$

EPA's estimate for covered sources plus renewables (doesn't count biomass and waste-incineration in numerator):

$$\frac{lb\ CO2\ (EGU's)}{MWh\ (EGU's + renewables, incl.\ biomass\ \&\ waste\ combustion)} = \mathbf{437}\ lb\ CO2/MWh$$

Actual emissions for EGU's and renewables (includes 5,202,479 tons CO_2 from biomass and 749,191 tons CO_2 from waste incinerators in numerator)

$$\frac{lb\ CO2\ (EGU's + biomass\ \&\ waste\ combustion)}{MWh\ (EGU's + renewables, incl.\ biomass\ \&\ waste\ combustion)} = \mathbf{1,255}\ lb\ CO2/MWh$$

EPA's 2030 target rate for Maine is 378 lb CO_2/MWh, which clearly depends on the current baseline estimate of 437 lb CO_2/MWh – an estimate that excludes bioenergy and waste emissions.

We are aware that in a recent meeting at OMB, a New Hampshire representative expressed hope that the CPP would recognize RGGI as a means of compliance with the CPP, as well as "low emitting" renewables like bioenergy.[3] Unfortunately, the RGGI program also treats bioenergy as having zero emissions, "baking in" the carbon neutral assumption here as well.[4] As for New Hampshire's commitment to bioenergy, EPA's facilities datafile shows two municipal waste incinerators in the state with an averaged emissions rate of 4,242 lb CO_2/MWhr, and six wood-burning facilities with an averaged emissions rate of 3,162 lb CO_2/MWh. The 2012 tally did not yet include a new 70 MW wood-burning power plant in Berlin, NH, which, according to its air permit,[5] consumes 113 tons of "whole logs" per hour (a USFS report[6] finds aboveground biomass in NH forests is around 138 tons/acre). At full-time operation this facility would consume close to a million tons of wood a year and emit about 3,085 lb CO_2/MWh.[7]

Inclusion of bioenergy and waste-burning as compliance measures have a distorting effect on baseline emissions rates, which in turn serve in the proposed rule as the basis for the 2030 target rates. Further, the low efficiency of bioenergy and waste incineration makes these technologies highly polluting per megawatt-hour, so that where they are used as compliance they will undermine the substantial health benefits anticipated from clearer skies under the Clean Power Plan. We urge OMB to reject bioenergy and waste-burning as compliance measures in the CPP, and only include technologies that produce immediate and verifiable reductions in carbon and air pollution emissions.

Thank you again for your time.

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[1] Goal Computation Technical Support Document for the Clean Power Plan, page 16.
[2] Numbers were taken from the Excel datafile that EPA provided in support of the CPP ("TSD Egrid Methodology") and also Goal Computation Technical Support Document at page 25.
[3] Inside EPA. "*EPA's State Supporters Urge White House To Finalize Strong ESPS*." July 15, 2015
[4] From https://www.rggi.org/market/tracking/data/emissions : "CO_2 emissions from eligible biomass reduce the total CO_2 allowance compliance obligation of the emitting unit."
[5] http://www.pfpi.net/wp-content/uploads/2011/06/100726air_permit.pdf
[6] http://nsrcforest.org/sites/default/files/uploads/hooverfull06.pdf
[7] Based on specs from air permit: 1,013 MMBtu/hr boiler, 70 MW gross output, and fuel moisture content of 50%.