



Contact:

Carrie Annand
VP, External Affairs
[\(202\) 494-2493](tel:2024942493) / carrie@usabiomass.org

Biomass Power Association Addresses Inaccurate Report

Rather than a scientific study, the report issued by Partnership for Policy Integrity this week should be regarded as an 81-page editorial. It showcases a fundamental misunderstanding of the science surrounding forestry and biomass, and a lack of familiarity with the state and federal laws governing energy and the environment. Governing bodies from the State of California to the nation of Denmark rightly look to biomass as a sound, proven solution for generating clean energy while keeping forests healthy, and an essential part of any renewable energy policy.

This report was not peer-reviewed, nor was it joined or supported by any credible national environmental organization. Indeed, national environmental groups like the [Natural Resources Defense Council \(NRDC\)](#) have endorsed the use of biomass from wood waste by facilities mentioned in the report like Plainfield Renewable Energy. In a letter to the facility, NRDC wrote: "NRDC has reviewed the plans for Plainfield Renewable Energy project and found that the categories of wood you propose to use meet our criteria for environmentally acceptable wood. In particular the standard for cleaned wood from construction and demolition debris appears to exclude all of the materials of concern to NRDC."

Placer County Air Pollution Control District, home to Cabin Creek Biomass Facility, was awarded the [2010 Clean Air Excellence Award](#) by the Environmental Protection Agency for its public-private solution for keeping forests healthy while generating clean energy using biomass.

It is unfortunately very easy to misrepresent numbers as true science. PFPI believes it is helping the environment – but the end result of studies like this is that, if they are taken as fact, more fossil fuels will be used for power.

We continue to review the report and collect its inaccuracies. For an initial review, we took a close look at two recently permitted, very different type projects—one in California and the other in Connecticut.

Plainfield Renewable Energy – Plainfield Connecticut

The Connecticut project, called Plainfield Renewable Energy is a \$220 million biomass generation facility that uses wood derived from construction and demolition waste that would otherwise be placed in landfills, causing methane emissions—a potent greenhouse gas. When completed, it will generate enough power for 40,000 households and account for 15% of Connecticut's renewable energy. The project has strict fuel processing requirements designed to prevent the combustion of creosote or other non-wood materials.

Fuel Sources and Inspection

On the subject of wood from construction and demolition used at the facility, the report questions the efficacy of the permitting process and fuel inspection, without any supporting data and without an understanding of the process for testing and inspecting fuel (pg. 56): "...the permit does at least require testing, its provisions still appear to be contradictory and unenforceable... it is not clear how effective such sorting can be, given that the sorting facilities rely on visual inspection to remove contaminated materials from a fast-traveling conveyor belt loaded with tons of debris."

Yet, the Natural Resources Defense Council reviewed the project and in 2007 concluded that "the standard for clean wood from construction and demolition debris appears to exclude all of the

materials of concern to NRDC from an air quality and public health perspective.” The New England States for Coordinated Air Use Management—a non-profit association comprised of the six New England states—also endorsed the use of Plainfield’s fuel.

Climate

From a climate perspective, Plainfield – and indeed all biomass facilities – are a no-brainer when it comes to carbon, and vastly preferable to fossil fuel facilities. In 2009, PhD ecologists—from such institutions such as Minnesota, Princeton, Dartmouth and UC Berkley—published an analysis of biomass carbon in [Science Magazine. Entitled “Beneficial Biofuel—The Food, Energy and Environmental Trilemma”](#)—the report listed fuels considered to be “biofuels done right” because of their lower life cycle greenhouse-gas emissions profile, including municipal and industrial wastes but also sustainably harvested wood and forest residues.

In calculating Plainfield’s CO2 emissions—indeed all CO2 emissions from the 88 facilities purportedly reviewed in the report, there is no attempt to analyze these emissions on a life-cycle basis. In other words, the emission calculations are simply what goes up the stack while ignoring the simple fact that carbon is “recycled” by a closed-loop process that takes carbon from the air in photosynthesis, resulting in the regrowth of plants. Because of this natural cycle, the science of greenhouse gases from biogenic sources like wood is undeniably and fundamentally different than the science of gases from geologic sources.

Cabin Creek Biomass Facility – Placer County, California

What about other emissions? This is where a California facility—called [Cabin Creek Biomass Facility in Placer County](#)—is particularly revealing. In 2012, the [Sequoia Foundation conducted an assessment with technical assistance from the California Department of Public Health](#) and in collaboration with Placer County Division of Planning Services and Department of Health and Human Services. The Assessment received funds from the Health Impact project, a collaboration funded by the Robert Wood Johnson Foundation and the Pew Charitable Trusts.

In California and indeed throughout the West, wood waste materials from forests is often burned in piles—causing uncontrolled emissions—or left in forests to become fuel for fires that threaten communities and ecosystems. Sequoia compared the fate of biomass if left to openly burn in piles or in forest fires versus the controlled combustion of the fuel in a biomass facility. This “alternative fate” analysis is completely missing from PFPI’s report, and for good reason. If PFPI had done such analysis, it would have come to the same conclusion that Sequoia reached.

Specifically, for regulated pollutants—the same pollutants discussed in the PFPI report—the construction of the Cabin Creek biomass plant, which used the wood waste that traditionally had been open burned, resulted in staggering reductions in emissions—**95 to 99 percent**. Similar reductions were confirmed by Placer County in a [2011 published, peer-reviewed report in the Journal of the Air & Waste Management Association](#)—**particulate emissions by 98%, NOX emissions by 54%, CO emissions by 97% and CO2 emission by 17%**.

In other words, far from being a source of “pollution,” biomass energy projects like Cabin Creek are part of the solution, contributing to forest health and improving air quality. No wonder the [California Energy Commission describes biomass in its Bioenergy Action Plan](#) as an energy source that “creates jobs, provides local energy, enhances energy security, and helps protect public health and safety by reducing waste materials and fire danger.”

What about other claims made by PFPI?

- *The report asserts that the DC Circuit invalidated a rule, requiring regulation of CO2 from biomass, when in fact the Court found that the Agency failed to adhere to the procedural rules in reaching that conclusion.* PFPI fails to discuss the very exhaustive regulatory proceeding now before EPA that includes a Science Advisory Board and almost three years of hearings and analysis. That proceeding, we trust, will result in the affirmation of biomass as providing carbon

benefits long recognized by many states like California and virtually every international regulatory body.

- *The report asserts that biomass plants can emit more “pollution” than fossil-fuel fired plants.* That is simply incorrect. Facilities that emit less than 250 tons are very minor contributors to overall air quality. The PSD permitting program is designed appropriately to focus on larger emitters given they are the source of the vast majority of emissions in this country. Creating unnecessary permitting hurdles for small facilities discourages investment and job creation. Some states require a Best Available Control Technology (BACT) analysis for minor sources, a BACT analysis for renewable energy sources, or have state-only limits for new NOx sources to prevent deterioration of air quality outside the PSD program. For example, the Texas Commission on Environmental Quality uses a three-tier approach to evaluate the BACT analysis in minor NSR air permit applications.

- *PFPI claims that states use exemptions like the so-called “synthetic minor” category to allow biomass plants to skirt regulations.* In fact, emission limits in synthetic minor source permits are enforceable permit conditions that must be met by the facility. The facility must operate in compliance with the emissions limits in its permits or be subject to enforcement action, permit termination, and permit revocation and reissuance as a major source permit.

- *PFPI claims that biomass plants have no restrictions on hazardous air pollutants (called “HAP emissions”), criticizing EPA for what they call lax standards.* Standards for what are called Maximum Achievable Control Technology for biomass boilers are described as lenient compared to coal (27x) especially when biomass boilers could burn up to 90% coal and are still classified as biomass boilers. In fact, EPA went through an extensive analysis of boilers in the last several years under what is called Boiler MACT, appropriately identified many different subcategories of boilers based on differences in class and type and then set MACT limits for each of the regulated pollutants. The process appropriately resulted in different HAP limits for different subcategories based on the best performing sources. Those rules are in place, going through the usual legal reviews and become effective in January 2016.

- *PFPI asserts, wrongly, that biomass boilers are burning wastes and should be regulated as incinerators.* Biomass has a long tradition of safely burning various biomass residuals that reduce reliance on fossil fuels while diverting materials from landfills and reducing harmful greenhouse gases. Biomass boilers are not designed to accept “trash.” Biomass facilities aren't equipped to take municipal solid waste but, like biomass, waste-to-energy facilities have their own set of strict regulations they must comply with.