

The Truth About the Biomass Industry: Dirty Air and More Carbon Pollution

According to the National Clean Energy Week website,¹ burning biomass is “carbon neutral,” “improves forest health,” and “protects air quality.” These claims are false.

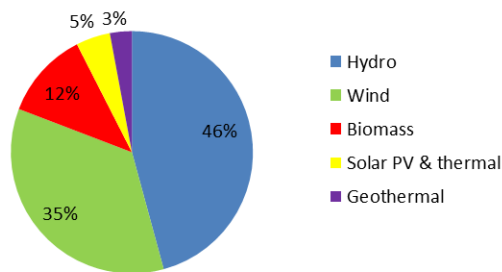
What is bioenergy?

Biomass plants generate heat and power by burning organic fuels, primarily wood and paper mill wastes (“black liquor”). Most wood is sourced directly from forests, though some is demolition debris. Some biomass facilities burn trees specifically harvested for fuel, like the 70 MW plant in Berlin, NH that burns 113 tons of “clean wood chips” per hour, including “whole tree chips.”²

NCEW website claim: Biomass provides “half” of America’s renewable electricity

FACT: This is false.

Renewable Energy Generation in 2015, by Source
(total generation 544 Gwh)



According to the U.S. Energy Information Administration,³ biomass energy accounts for less than 8% of renewable electricity, or 12% if landfill gas and organic waste incineration is included. So what else have they gotten wrong?

Claim: Biomass is “clean” and “protects air quality”

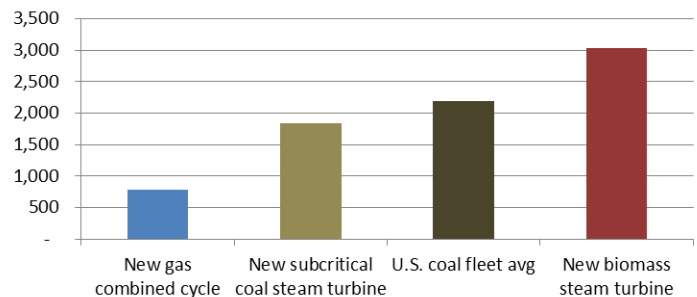
FACT: Just like coal plants, biomass plants belch soot, smog, and other pollutants that threaten public health and the environment. Some plants burn tires,

demolition waste, and treated lumber, emitting heavy metals, dioxins, and other hazardous pollutants.⁴

Claim: Biomass “reduces greenhouse gas emissions”

FACT: Biomass power plants emit *more* CO₂ per megawatt hour than coal or gas. Burning biomass pumps CO₂ into the atmosphere immediately, while re-growing trees to take up CO₂ takes decades. Even burning wastes that would decompose anyway accelerates emissions – and thus warms the climate.

Pounds CO₂ per MWh



Biomass plants being built today emit on average 65% more CO₂ per MWh than modern coal plants and 285% more than natural gas combined cycle plants.⁵

Claim: Biomass “improves forest health”

FACT: Claims that biomass comes from forest “debris,” and that removing it improves forest health and “dramatically” reduces the risk of fire, are not backed up by science. Removing logging residues strips vital nutrients out of the forest, degrading soils and increasing erosion. And logging millions of acres to reduce fuel loading for fire converts forest wood to CO₂, worsening climate change.

Clean energy doesn’t come out of a smokestack. Congress must stop subsidizing biomass climate and air pollution.

¹ <https://nationalcleanenergyweek.org/biomass-and-biogas/>

² NH Dept. of Environmental Services, Air Resources Div.. Air Permit for Laidlaw Berlin BioPower, LLC, July 26, 2010.

³ https://www.eia.gov/electricity/annual/html/epa_03_01_b.html

^{4,5} <http://www.pfpi.net/wp-content/uploads/2017/09/PFPI-Biomass-Reality-Check.pdf>