

Wood Fueled Biomass Burning

A Reality Check

Wood fueled biomass energy is worse than fossil fuels for carbon dioxide emissions and similar for air pollutants. It threatens forests, rivers, and air quality and will worsen global warming impacts. Wood fueled biomass burning is a false solution to our energy and environmental problems that diverts attention and resources from truly clean energy sources such as solar, geothermal, tidal, appropriately located and scaled wind and hydro, and most importantly conservation and efficiency.

EXPANDED:

Contrary to industry claims, wood burning biomass energy does not reduce carbon dioxide emissions, it increases them. Wood burning biomass power plants emit about 50% more carbon per unit of energy than coal. Additionally, wood burning biomass power plants produce similar or higher levels of other air pollutants such as CO, NOx, VOC's, and particulates as coal plants. Biomass power plants are extremely inefficient and operate at about 25% efficiency. This means enormous amounts of wood are required to produce tiny amounts of energy and in effect, 75% of the forest cut for biomass fuel goes up in smoke. Instead, achievable and economic conservation and efficiency measures, which cost a third of new energy, could reduce our energy use by more than 30%. Furthermore, already stressed rivers are often targeted to provide large amounts water to cool the plants.

In addition to the threat from large wood fueled biomass power plants, multitudes of smaller wood fueled heating plants are proposed. While a smaller plant may have smaller impacts, it does not take many "small" plants to create a big problem. More wood burning in small biomass plants is still a step backwards, and the cumulative carbon dioxide, air pollution and forest impacts of many small plants can supersede those of a few large plants. Even replacing an oil heating system with a wood burning system **increases** carbon dioxide and pollution emissions.

Instead of moving backwards by forcing taxpayers to subsidize an increase of cutting down and burning forests in polluting and carbon emitting wood fueled biomass plants, we need to move forward with genuinely clean energy sources.

KEY FACTS:

- Literally billions of dollars in public "green" energy subsidies are being spent on dirty wood biomass burning instead of going to genuinely clean energy sources such as solar, geothermal, tidal, appropriately located and scaled wind and hydro, and most importantly and most economically, conservation and efficiency.
- Wood fueled biomass energy emits more carbon dioxide per unit of energy than coal and other fossil fuels. Wood fueled biomass burning power plants emit about 3,300 lbs of CO₂ per MWh in comparison to 2,100 lbs per MWh for coal and 1,300 lbs per MWh for gas. New gas powerplants average about 760 lbs of CO₂ per MWh.
- Wood fueled biomass burning is dirty and emits air pollutants at levels similar levels or worse than coal and other fossil fuels, depending on the pollutant.

- Enormous amounts of forest would need to be cut and burned to produce tiny amounts of power. Instead, achievable conservation and efficiency measures could reduce energy use 30%. Conservation measures cost about 1/3rd the cost of new production.
- Public forests as well as private lands are targeted for large increases in logging to supply this wood. Clearcutting would increase.
- Thousands of truck trips would be generated mostly on narrow rural roads, and millions of gallons of diesel would be burned each year to cut, chip and deliver the wood.
- Wood fueled biomass burning is not clean. It emits more carbon dioxide than coal, pollutes the air and water, causes deforestation and should not be eligible for receiving or benefitting from any “green”, “clean” and “renewable” taxpayer subsidies and/or preferential legislation.

CITATIONS REGARDING BIOMASS BURNING AND CARBON

1. 90 Scientists Urge Congress Not to 'Cook the Books' in CO2 Accounting for Biomass
<http://intelligentenergyportal.com/article/90-scientists-urge-congress-not-cook-books-co2-accounting-biofuels>
2. Timothy Searchinger et al, October, 2009 from Princeton “Fixing a Critical Climate Accounting Error” <http://www.maforests.org/SCIENCE.pdf>

“Harvesting existing forests for electricity adds net carbon to the air. That remains true even if limited harvest rates leave the carbon stocks of re-growing forests unchanged, because those stocks would otherwise increase and contribute to the terrestrial carbon sink”

3. Keeton, et al, No Logging Provides Highest Forest Carbon Storage, Keeton: January 2010
www.maforests.org/Keeton.pdf
4. Dr Eric Johnson, “Goodbye to carbon neutral: Getting biomass footprints right” July 2008
www.maforests.org/Carbon.pdf
5. Chris Matera, P.E. Biomass Power Plant Emissions Carbon Calc
www.maforests.org/MFWCarb.pdf
6. Dr. Mary Booth, Biomass Briefing: www.maforests.org/DrBooth.pdf
7. NPR: Biomass worse than coal: www.wbur.org/2010/06/11/wood-power-plants

CITATIONS REGARDING BIOMASS BURNING AND HEALTH EFFECTS

Mass Medical Society Opposes Biomass: www.maforests.org/MassMed.pdf
 Mass Medical Society Opposes Biomass, Part 2: www.maforests.org/Doctors2.pdf
 Hampshire District Medical Society: www.maforests.org/HDMS.pdf
 Physicians For Social Responsibility: www.maforests.org/PSR.pdf
 Dr. William Sammons: www.maforests.org/Sammons.pdf

For a live links for all the above sites, go to: www.maforests.org/Biomess2.pdf

BURNING THE FOREST IS NOT “GREEN” ENERGY



McNeil 50 MW Biomass Plant #1 Air Pollution Source in Vermont

www.planethazard.com/

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www.maforests.org