

Biomass To Energy in the United States

Beyond Carbon Neutral

Environmental and Energy Study Institute
Washington, DC
May 6, 2008



USA Biomass Who We Are/What We Do

- Owners, operators, fuel providers, stakeholders
- Created in 1999
- 50 members, 20 states, 1600MW
- 1% of the nation's power
- According to DOE, Biomass has the potential to provide 14% of the nation's power
- www.usabiomass.org



Scope of Presentation

- Limited to biomass-to-energy (electricity)
 - not biofuels
 - not ethanol
 - not biogas
 - not MSW
- Limited to “open-loop”
 - not “closed-loop”
 - not “inside the fence”



We Are Carbon Neutral

- Well accepted
- **Below ground**--Fossil fuel production removes carbon from permanent geologic storage and adds it to the atmosphere as new carbon.
- **Above ground**--Biomass takes carbon that is part of natural carbon cycle, releases it through combustion, after which it returns through photosynthesis and the cycle begins again.



Beyond Carbon Neutrality Biomass GHG Abatement

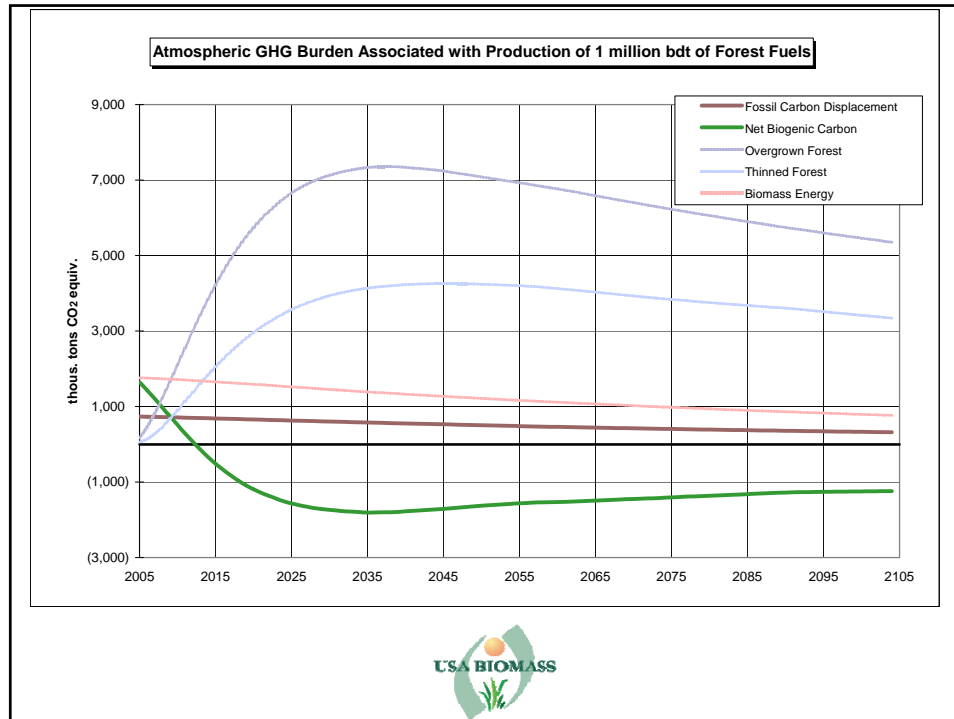
- Increases amount of carbon that is stored on a sustainable basis—thinning and use of residuals contributes to improved forest health and fire resiliency.
- Biomass energy changes both timing and mix of carbon (oxidized vs reduced) emitted to atmosphere.
- “Reduced carbon” (CH₄) is 25 times more potent than oxidized carbon on an instantaneous basis.
- In the absence of biomass energy, the fate of wood and ag wastes is through decomposition, incomplete forest fire combustion, and landfilling.



California as a Case Study

- California biomass sector looked at climate benefits of its industry.
- 7.8 million tons (4.6 million BDT) per year.
- 4 million tons of avoided CO₂ from fossil fuel combustion.
- 3.6 million tons of biogenic reductions.
- Almost one ton of CO₂e for each ton of fuel!





National Potential for GHG Abatement Using California Data

- Currently, 22 million tons of wood and ag wastes are converted to energy in the US.
- This conversion represents 10 million tons of CO₂e avoided fossil fuel emissions AND 10 million tons of biogenic emissions.
- The current industry reduces 20 million tons **annually** of CO₂e without any additional capacity.



How can Congress Encourage The Biomass Industry

- Recognize the important and unique benefits of biomass to energy
- Level the playing field by providing tax credit equity
- Repeal IRS “netting rule”
- Extend placed in-service date
- Maintain Section 45 benefits for existing plants
- Value GHG benefits



Questions?

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