

Woody Biomass Energy Opportunities from a Land Manager's Perspective

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MN Forest Resources Council's 17 Members Include a Chair Plus:

Public Land Managers

County Land Departments
MN DNR
US Forest Service

Private Land Managers

Family Forest Owners (2)
Forest Industry
Tribal Owners (MN
Indian Affairs Council)

Other Forestry Interests

Conservation Organizations
Environmental Organizations (2)
Game Species Organizations
Labor (Forest Industry Mill
Workers)
Loggers
Research/Higher Education
Resort and Tourism Industry
Secondary Manufacturers

Existing and Proposed Wood Energy Facilities

Existing Wood Energy Facilities

- At least 40 Wood Energy Facilities in Minnesota (excluding landscape/mulch industry)
- Of those 40 facilities, 6 Facilities use over 200,000gt* annually
 - Virtually all available mill residue in the state is utilized

Proposed Wood Energy Facilities

- 25+ proposed biomass facilities for the state
 - More are announced every month

* gt = green tons

Minnesota Forest Resource Use

Resource Use	Volume
Historic timber harvest	7.6 million green tons
Current timber harvest	5.4 million green tons
Upper limit of “sustainable” timber harvest	11.0 million green tons
Current woody biomass utilization	3.9 million green tons
Potential for Expansion	3.0 million green tons +/- 50%

Advantages of Woody Biomass Harvest for MN Forest Landowners

- Potential income source
- Wildfire fuel load reduction = reduced wildfires
- Improved forest health and wildlife habitat
- Reduced carbon/other greenhouse gas emissions via reduced fossil fuel use
- Helps retain economic wealth locally
- Increased total demand for wood has potential to improve health of forest products industry

Strategic Advantages for MN in Attracting Biomass Energy Facilities

- Available long-term supply of forest resources (16M acres)
- Existing infrastructure: pulp/paper/OSB plants
- Available rail car distribution
- Skilled work force (including experienced loggers)
- MFRC woody biomass guidelines (1st in US)
- 8+ million acres of FSC certified land (most in US)
- 5.6 million acres DNR dual certified land (most in US) (“dual certified” = SFI and FSC)
- Aggressive Renewable Electricity Standard (25%x2025)
- Great research and expertise with leading bioscience industries (e.g., 3M, Cargill, Medtronic) and the U of MN

Strategic Disadvantages for MN in Attracting Biomass Energy Facilities

- Lower cost of alternative fuels (e.g., natural gas, wind)
- Lower state incentive payments to finance multimillion dollar business location deals (not necessarily bad – helps avoid risky investments that cost taxpayer \$)
- Environmental review is more rigorous, expensive, and time consuming than in some other states and countries
- Lack of a deep water port for export

Potential for Future Bioenergy Production in Minnesota

- Great potential for bioenergy and biochemical production, including as part of expansions to existing forest products industry mills
- 25 pre-commercial/near commercial biochemical facilities in Golden Valley/St. Louis Park area could use wood as a future feedstock
- Two key questions:
 - 1) How will biochemical industry advancement be integrated with existing forest industry?
 - 2) Will we have enough available logging capacity to meet potential demand?