

Woody Biomass

An Abundant Resource for Energy and Other Uses

U.S. Department of Agriculture
Forest Service
Northeastern Area State and Private Forestry

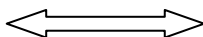


Description: “Woody biomass” refers to the woody parts of trees and other plants, including limbs, tops, needles, and leaves. Woody biomass comes from forests, rangelands, and urban tree waste. Woody biomass is usually a byproduct when people manage or restore forests, treat hazardous fuels to reduce the threat of wildfires, and care for urban trees.

Expanding the use of woody biomass improves the health of forest ecosystems by removing woody material that would increase forest health risks if left in place. Using more woody biomass improves the economic outlook of both forest management and the wood products manufacturing sectors. It also helps mitigate climate change by providing an alternative to consuming fossil fuels. The U.S. Forest Service national *Woody Biomass Utilization Strategy* commits the agency to three working principles and four goals:

Principles

1. Pursue sustainability
2. Empower entrepreneurial action
3. Use science-based information and new technology



Goals

1. Supply
2. Partnerships
3. Science and Technology
4. Marketing

The Northeastern Area State and Private Forestry (NA S&PF) Woody Biomass Business Plan, which tiers to the national strategy, works across several State and Private Forestry program areas. NA S&PF provides technical and financial assistance to partners that are interested in sustainably using woody biomass.

Key Issues:

- *Sustainability:* Consider the ecological, social, and economic impacts of using woody biomass; ensure that forest systems are maintained or enhanced; focus on the most efficient uses of woody biomass.
- *Maintain working forest lands:* Provide sufficient rewards to landowners and communities that lead them to maintain or expand their forest land.
- *Renewable energy and greenhouse gas reductions:* Diversify the region’s energy portfolio, improve air quality, boost energy security, and stabilize energy prices.
- *New economic opportunities:* Enhance local economies by developing new markets for energy, carbon sequestration and offsets, liquid fuels, building materials, and wood-derived chemicals, which will bring new business activity and reduce reliance on imported energy.

WERC-supported Technical Assistance Wood Energy/Woody Biomass Utilization <i>Fiscal Year 2011</i>		
Project Type	Active Projects	States Involved
Wood Energy Feasibility Studies	68	16
Woody Biomass Utilization Support	10	9

Accomplishments:

- Integrated woody biomass into the NA S&PF Strategic Plan for 2008-2012 and the Northeastern Area Association of State Foresters (NAASF) Strategic Plan for 2008-2012; launched a multiprogram initiative.
- Tapping expertise at the Wood Education and Resource Center (WERC) to provide technical assistance through the NA S&PF Biomass Coordinator and financial assistance through the WERC grant program. Efforts span the 20 States served by NA S&PF and the 35-state hardwood region served by WERC.
- In Fiscal Year 2011, there were active projects in 17 States and the District of Columbia.

Project Highlights:

Advancing Education and Outreach on Biomass Thermal Energy (Award Number 10-DG-150): This WERC-funded project was conducted by the Biomass Thermal Energy Council (BTEC) to develop 1) educational materials, including Biomass Thermal 101 factsheets and related online resources; 2) Webinars and audio interviews to inform and educate large groups of stakeholders about biomass thermal energy; 3) a master slide presentation for all stakeholders; and 4) interactive forums and a Q & A section of the BTEC Web site. Project details and products are available online at <http://www.biomassthermal.org/resource/>.

The WERC Wood Energy Technical Team completed a wide range of projects in FY 2011. The Team worked closely with the Missouri Department of Conservation to implement the Missouri Fuels for Schools Recovery Act Project. Systems are in place and operating at six small school systems. Each of these projects will improve classroom air quality and reduce school operating costs. In New Hampshire, the Technical Team is working with the State Foresters Office and the North Country Resource Conservation and Development Area Council to implement five wood energy projects across the State. Weeks Memorial Hospital in Lancaster, NH, has an operating system, and a wood-fired system is being installed at the Rockingham County Complex in Brentwood, NH. In New York, the Technical Team completed a feasibility study for the Church Communities Mount St. Alphonsus Center in Esopus, NY. Installation of the new wood-fired heating system is underway.

Budget History:

NA S&PF Woody Biomass Program¹				
Financial Support				
<i>(\$ Thousands)</i>				
	FY 2008	FY 2009²	FY 2010	FY2011
U.S. Forest Service	\$271	\$18,770	\$3,471	\$814
Partners	414	1,250	\$3,481	\$429
Totals	\$685	\$20,020	\$6,952	\$1,243

¹ Number of States involved: FY 2008 = 6, FY 2009 = 11, FY 2010 = 11, FY2011 = 16

² FY 2009 includes \$17 million in ARRA funds: \$11 million to ME, \$6 million to MO

Future Direction:

The Forest Service is part of a coordinated Departmental effort to expand the use of woody biomass to improve forest health, reduce wildfire risk, and diversify the Nation's energy portfolio. The Northeastern Area State and Private Forestry is working with the Northeastern Area Association of State Foresters, Northern Research Station, Eastern Region of the National Forest System, and the Forest Products Laboratory to encourage the sustainable use of woody biomass to accomplish these same goals across the Northeast and Midwest. The Northeastern Area State and Private Forestry expects to:

- Expand technical assistance capabilities in the use of woody biomass for energy.
- Support regional biomass utilization initiatives focused on district heating and combined heat and power.
- Encourage project funding through closer working relationships with other USDA agencies and State partners.
- Encourage the most efficient use of the region's woody biomass resources.

The Northeastern Area State and Private Forestry woody biomass Web site is located at <http://www.fs.fed.us/woodybiomass/>.

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