



United States Department of Agriculture

Finding Value Beyond BTUs

Advanced wood energy has other values to the user, the community, the region, and the world.



Forest Products Laboratory

Forest Products Marketing Unit



www.biomassthermal.org

Sports Bar - other end of casino

BTEC & Brews in the U.P.!

Wednesday, October 12, 5:30pm - Club One Four (Inside the Casino)

Join us for a casual reception for BTEC members and prospective members.
Drinks and snacks are on us!



Executive Director Jeff Serfass will be onsite to greet you.
Call or email Vera Medici at (202)596-3974 x322 or vera.medici@biomassthermal.org for more information.

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Panelists

- Healthy forests, industries, and communities – **Brian Brashaw**, USDA Forest Service
- Combined heat & power – **Tom Wilson**, Wilson Engineering
- Biomass cooling – **Michael Sparby**, Agricultural Utilization Research Institute
- Clear skies, blue water, and green carbon – **Kathy Halvorsen**, Michigan Technological University

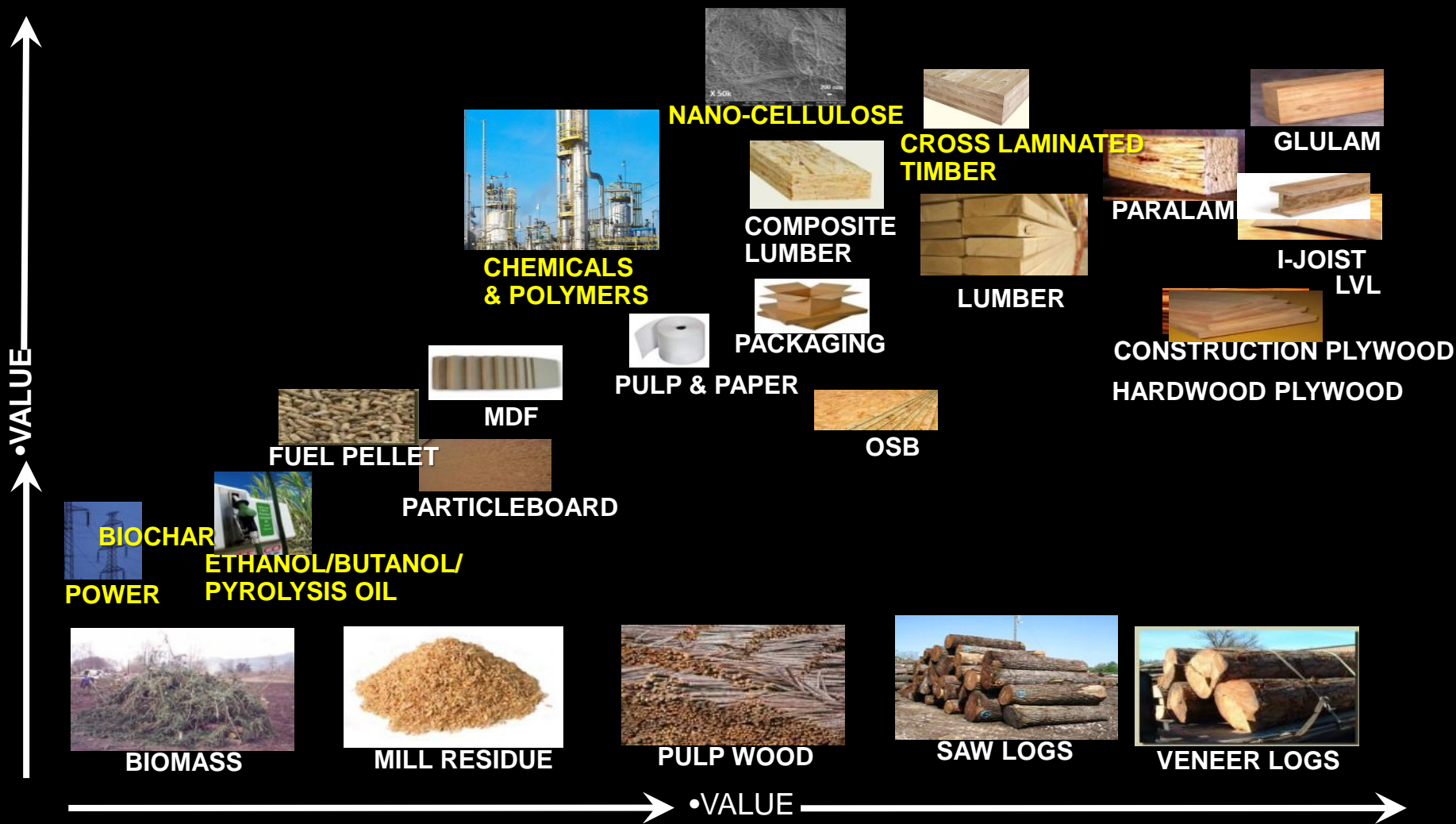


Why should we care about wood energy?

- Contributes to healthy, sustainable forests
- Creates jobs in rural communities
- Increase public awareness of forestry
- Reduce global CO₂ emissions
- Stable, competitive pricing
- Improves wildlife habitat
- More globally competitive forest products sector



A key element in maintaining healthy, resilient forests is our ability to provide value-added products from the full complement of forest biomass.



Minnesota Forest Economy

2014 Economic Effect	Direct	Total
Employment	30,000 jobs	62,800 jobs
Payroll	\$1.5 billion	\$3.2 billion
Manufacturing Sector	5 th Largest in Minnesota	

Source: Don Deckard, Minnesota Department of Natural Resources

Minnesota Forest Economy

Key Information	2014
Pulp, Paper, Paperboard	8
Wood Products	750
Renewable Energy	14
Total Harvest	2.9 million cords

Includes: electricity generation, combined heat & power (CHP), and fuel pellet mfg. facilities with >10,000 cord annual consumption.

Source: Don Deckard, Minnesota Department of Natural Resources

Michigan Forest Economy

2014 Economic Effect	Direct	Total
Employment	38,291 jobs	96,623 jobs
Payroll	\$2.3 billion	\$5.2 billion
Manufacturing Sector Rank	Top 3 Largest in Michigan	

Output is the total value of the industry in the local economy

Source:

Michigan Forest Economy

Key Information	2015
Pulp, Paper, Paperboard	17
Wood Products	1300
Forestry, Logging, Trucking	800
Renewable Energy	35
Total Harvest	4.7 million cords

Source: http://www.michigan.gov/dnr/0,4570,7-153-30301_31023---,00.html

Bill Cook, MSU

Wisconsin Forest Economy

2014 Economic Effect	Direct	Total
Employment	64,896 jobs	175,219 jobs
Payroll	\$3.9 billion	
Manufacturing Sector	4 th Largest in Wisconsin	

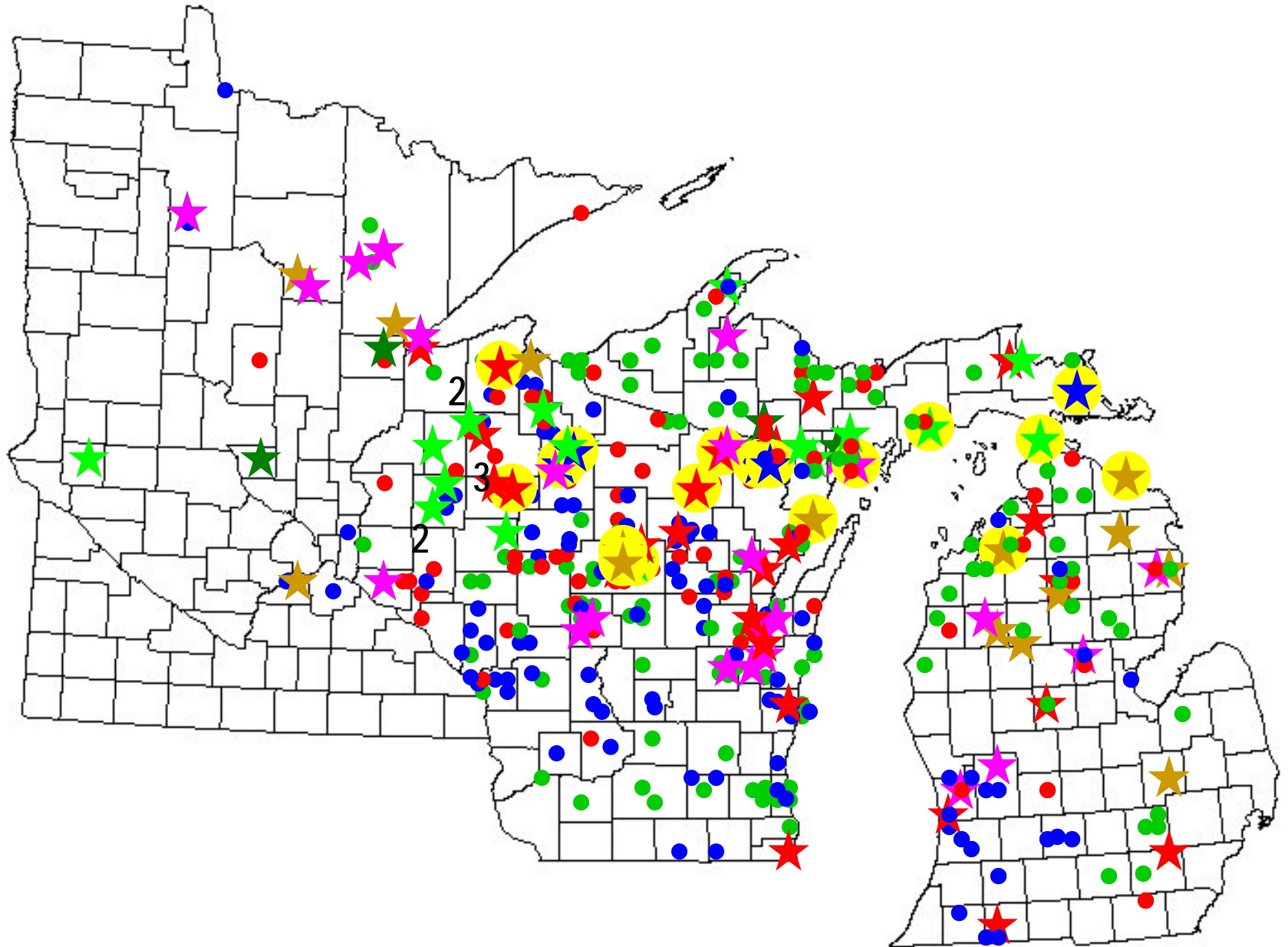
Source: <http://dnr.wi.gov/topic/ForestBusinesses/documents/factSheets/FactSheetWisconsin.pdf>

Wisconsin Forest Economy

Key Information	2015
Pulp, Paper, Paperboard	47 + 202 paper manufacturing
Wood Products	958
Forestry and Logging	282

Source: <http://dnr.wi.gov/topic/forestbusinesses/documents/wisconsinforestproductsindustry.pdf>
<http://dnr.wi.gov/topic/forestbusinesses/documents/timberharvestwisconsin.pdf>

Wood Energy Facilities



Biomass Thermal Job Advantages

Collection, Harvest, Storage & Transport Jobs



Aggregation & Manufacturing of Biomass



Fuel Delivery & Maintenance



Mfrs, Distributors, Retailers, and Installers













Let Me Tell you a Story...

As a youth growing up in the Nicolet National Forest, I understood the connection between the forest and Connor Forest Products where my Dad worked. Despite moving from Laona in 5th grade, I combined my youth goal of being a forester with a career in forest products. After 25 years as a wood specialist in Minnesota, I joined the Forest Service's FPL in 2015 to fulfill a career goal and work to strengthen the connection between our forests, research, and markets. I am proud to work alongside my Forest Service colleagues and partners to support resilient forests and communities.

