

Woody Biomass: Making Wood WERC for Us

Steven J. Milauskas
Stephen M. Bratkovich

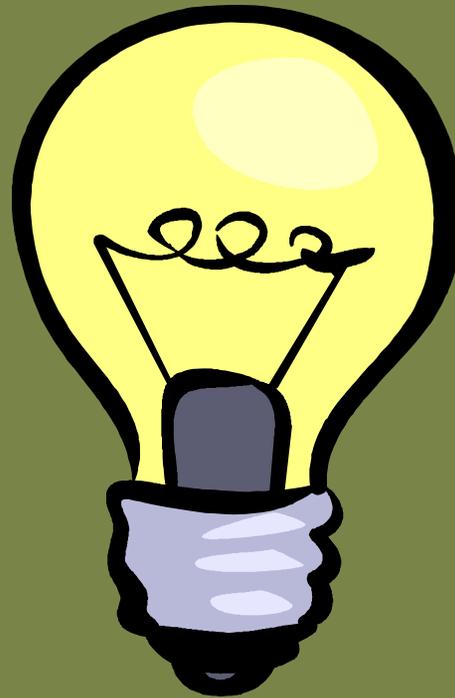


WOOD EDUCATION
AND RESOURCE CENTER



2030

25x25



25x25



25x25

Biomass is Important



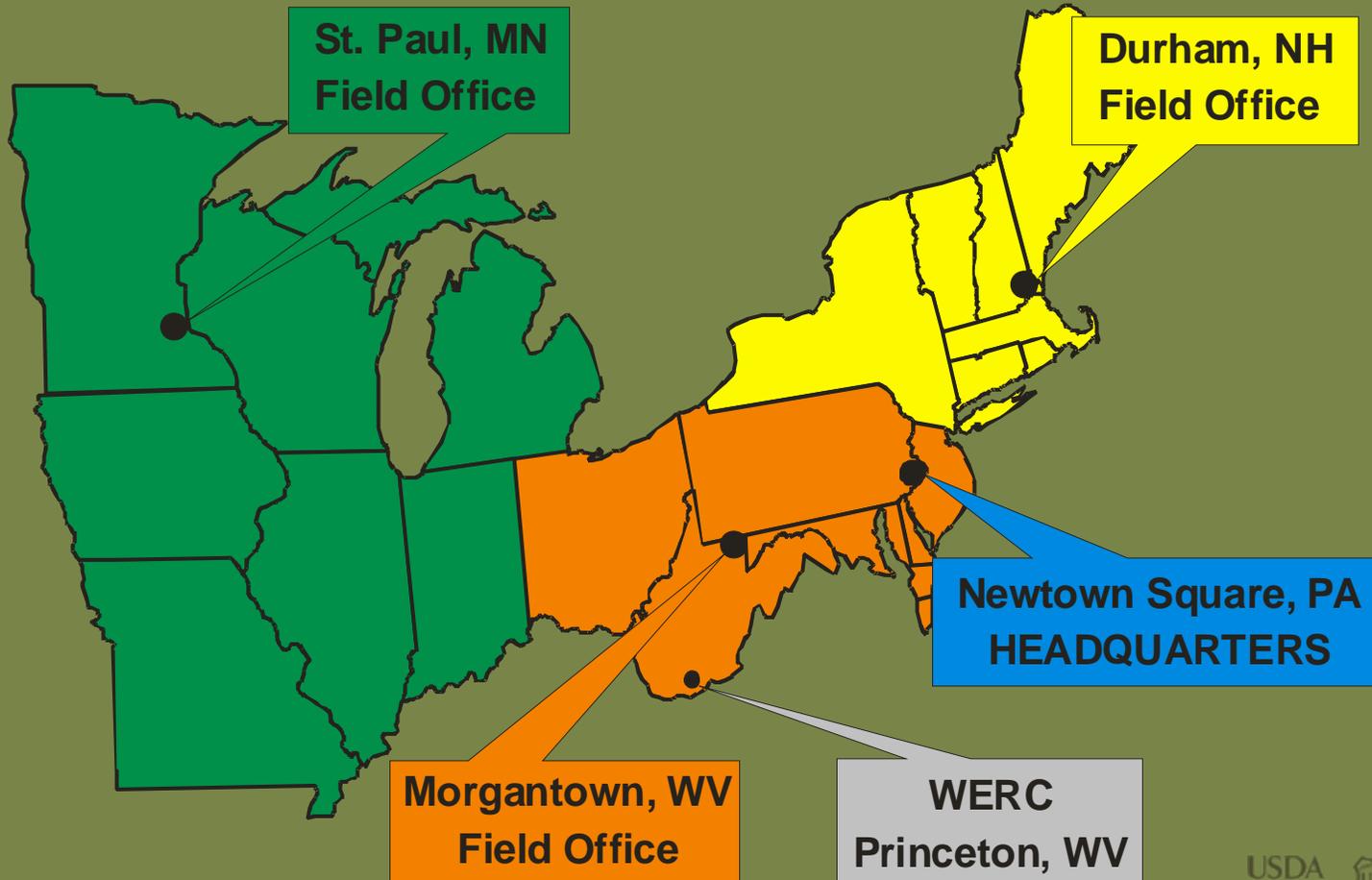
New England Wood Pellet, LLC
Premium wood pellets made from 100% recycled wood.



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State and Private Forestry is primarily focused on ensuring sustainable management of non-Federal forest lands.

The Northeastern Area works with the 20 Northeastern and Midwestern States, and the District of Columbia.



25% of U.S. Forest Land in NA



93% in State and Private Ownership



Infrastructure...Forest Workers



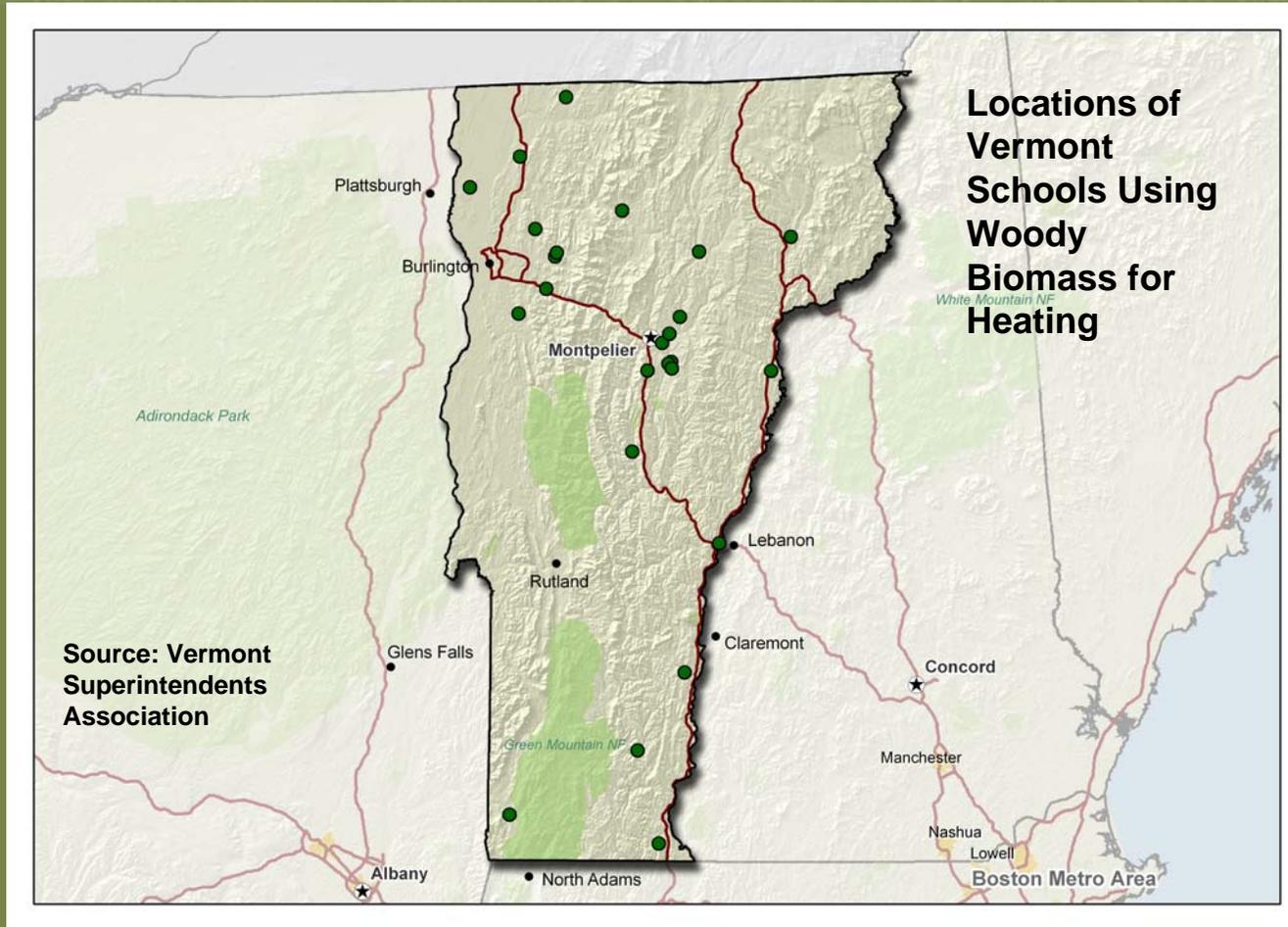
Infrastructure...Manufacturing Sites



Infrastructure...Markets



Momentum and a Critical Mass



Wood Education and Resource Center

Main Office Building (23,000 SF)



WOOD EDUCATION
AND RESOURCE CENTER

WERC Buildings

Main (left)

New Training Annex (center)

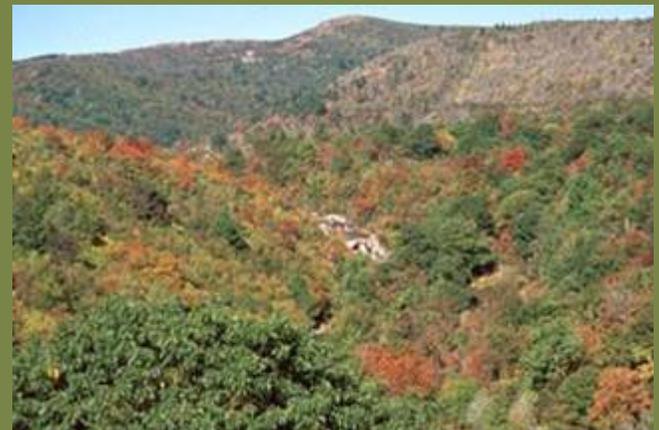
Rough Mill (right)



Why WERC?

Sustainability

- Industry
- Communities
- Forests



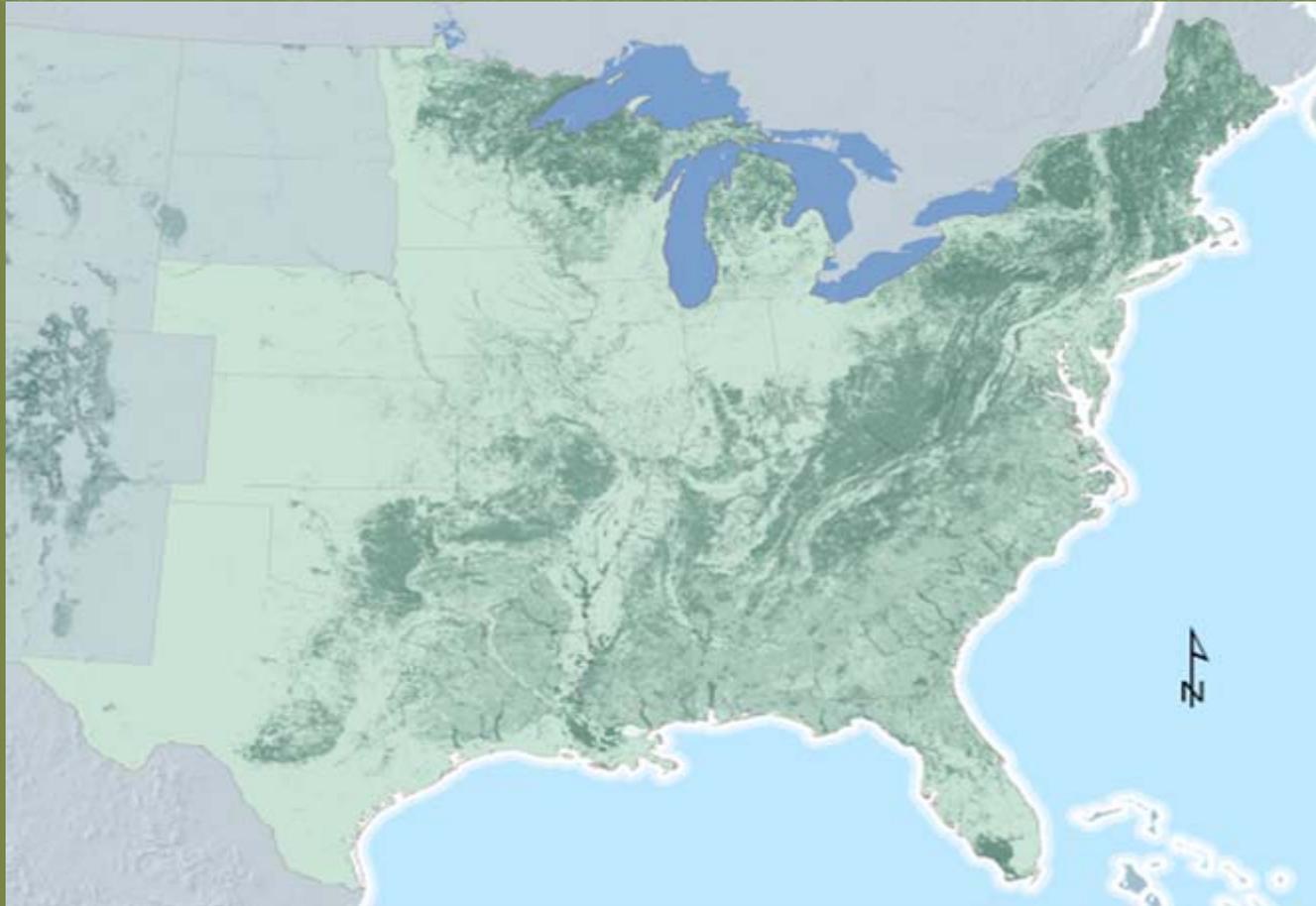
Why WERC?

History

- 1996 R. C. Byrd Hardwood Technology Center
- 1999 USDA Forest Service Wood Education and Resource Center (WERC)
- 2005 USDA Forest Service WERC with newly focused vision

WERC States - Eastern Hardwoods

162 Million
Acres are
in the
Eastern
Hardwood
Forest
Type



93% total Eastern forest = private + other public
83% total Eastern forest = private only

Why WERC?

■ Industry Challenges

Job Losses - 5 years

Wood Products: 20,000

Paper: approx. 100,000



WERC Cluster

Public / Private
Partnerships

Facilities –
offices, training,
manufacturing

Work force - labor

Forest Resources

Infrastructure

Training

Research

Technology
Transfer

Investment Capital



WERC Current Focus

- **Maintain and expand partnerships**
- **Lease rough mill facility** – January 2006, Awarded to Accurate Millworks, Inc.
- **Annual competitive grants program**
- **Utilize new training center**
- **Lease shop facility** – mid-2006
- **Technology evaluation/upgrade**

New Business Established

Accurate Millworks – January 2006



Biomass is Important



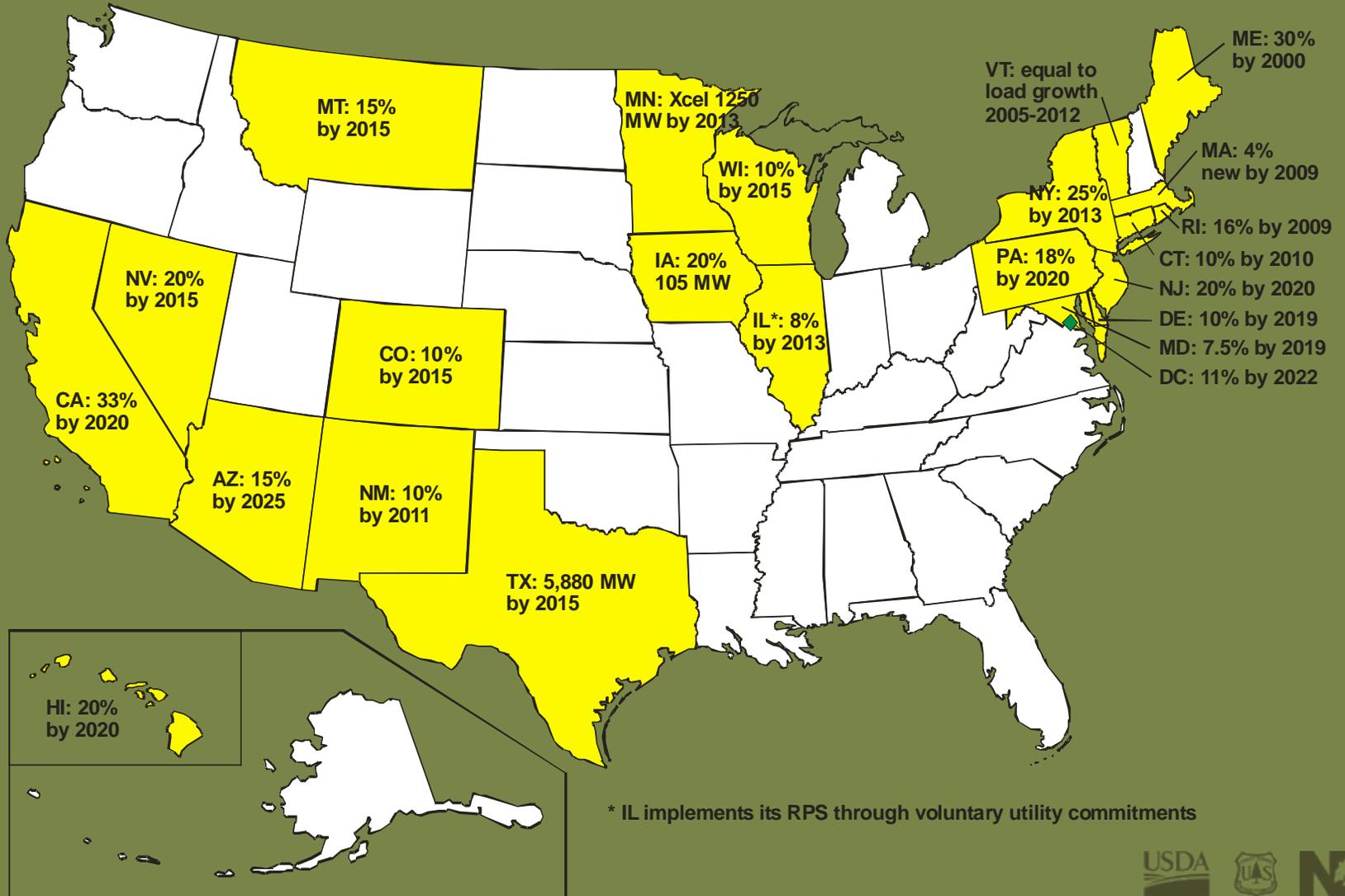
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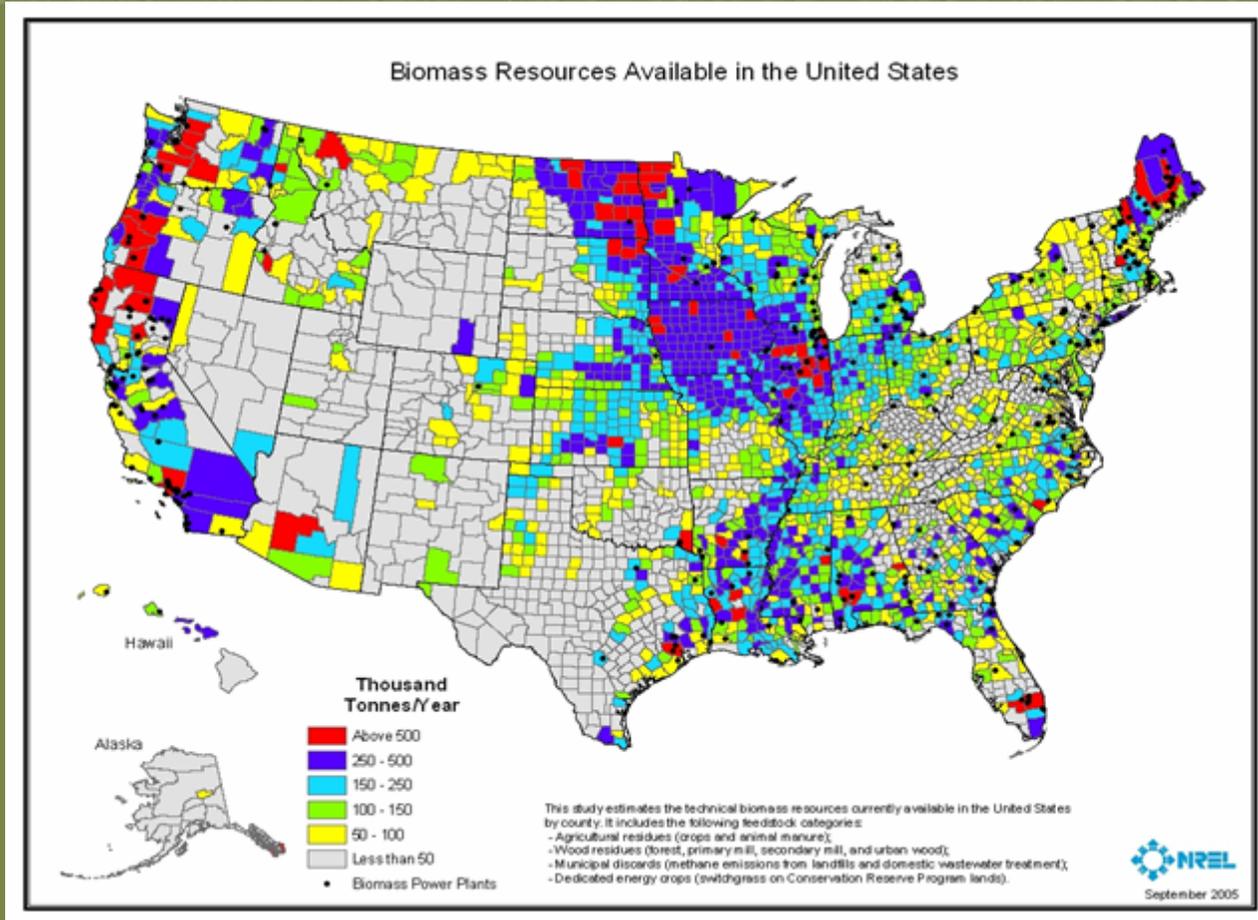
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Renewable Portfolio Standards

Partnership Potential

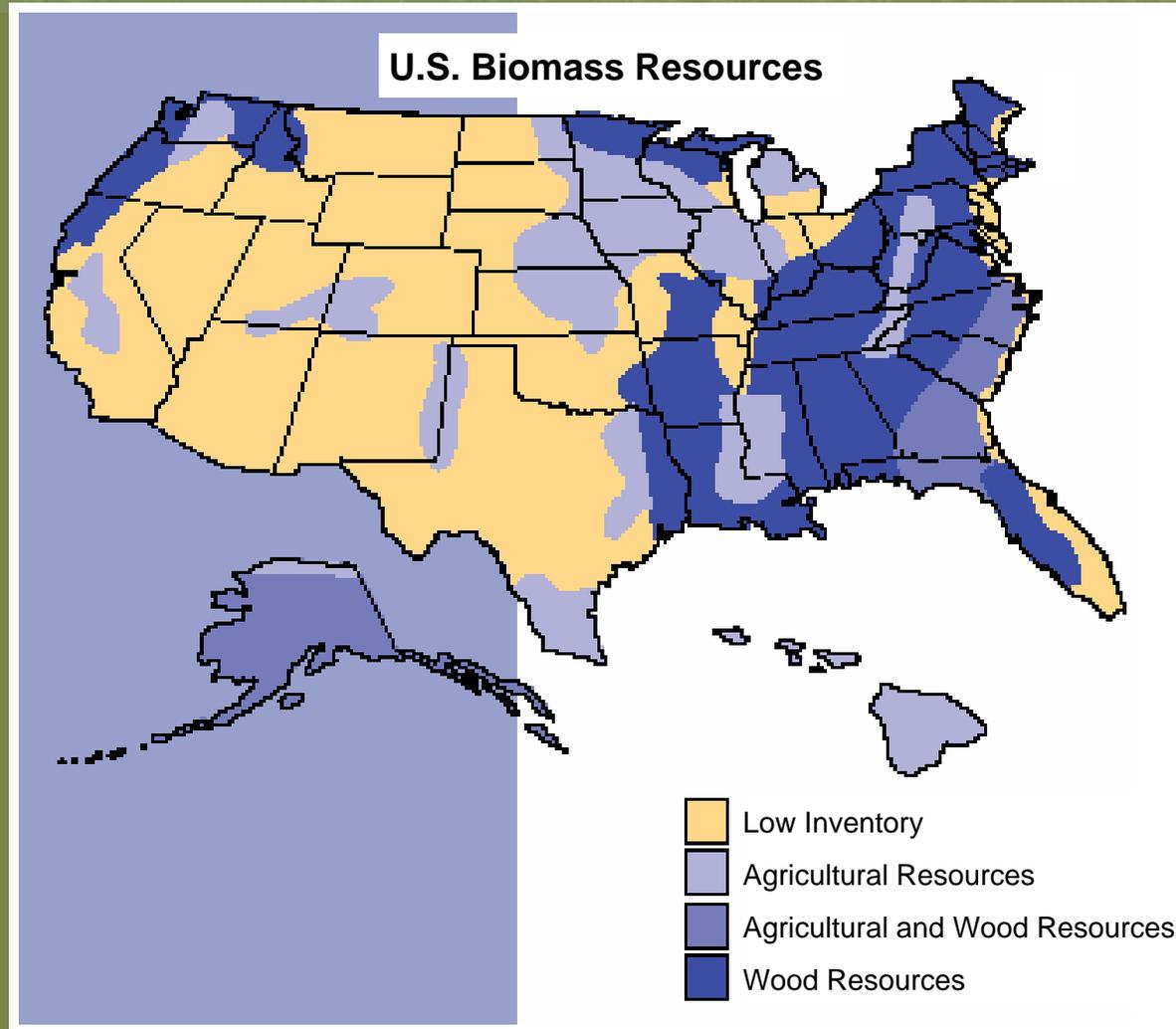


Available Biomass

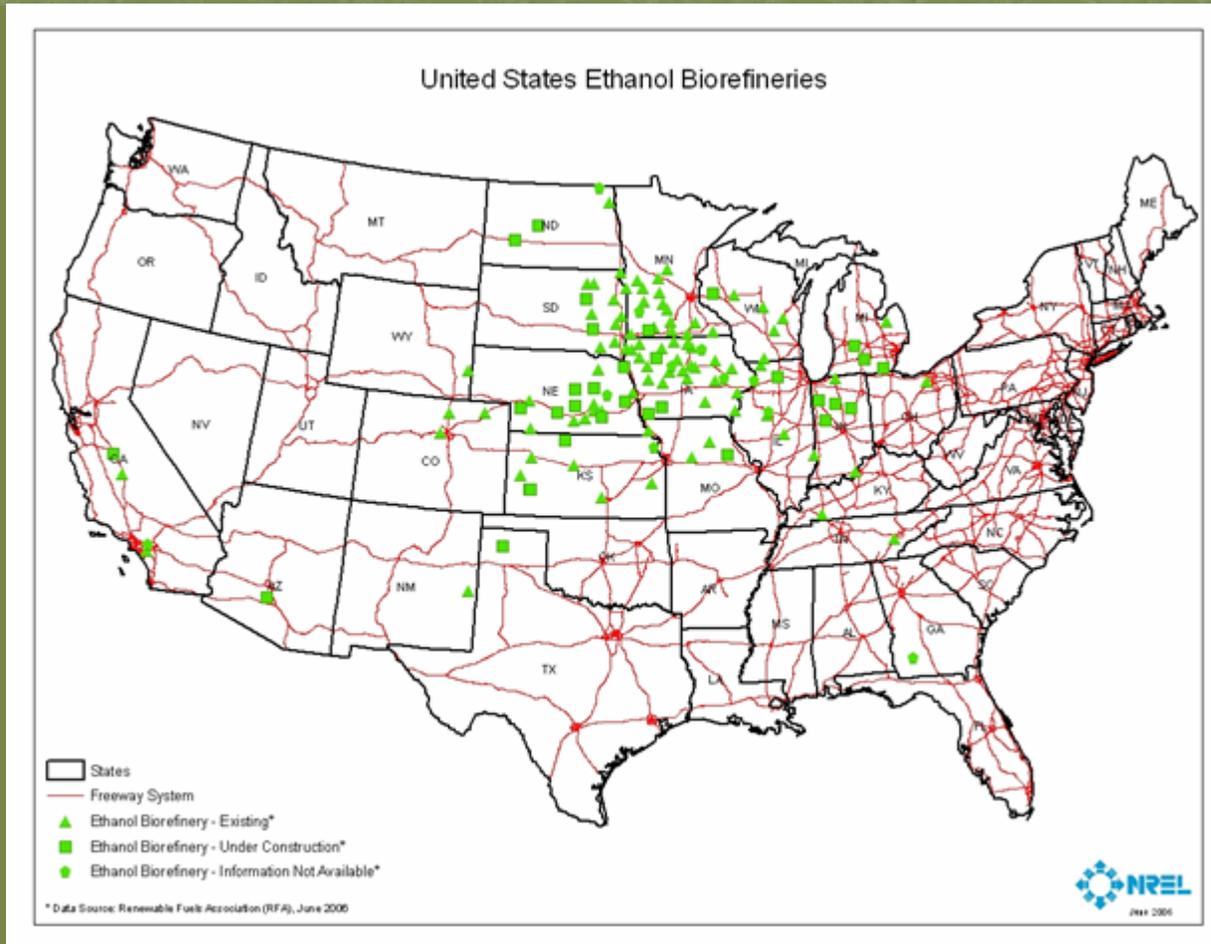


Agricultural and Wood Residues

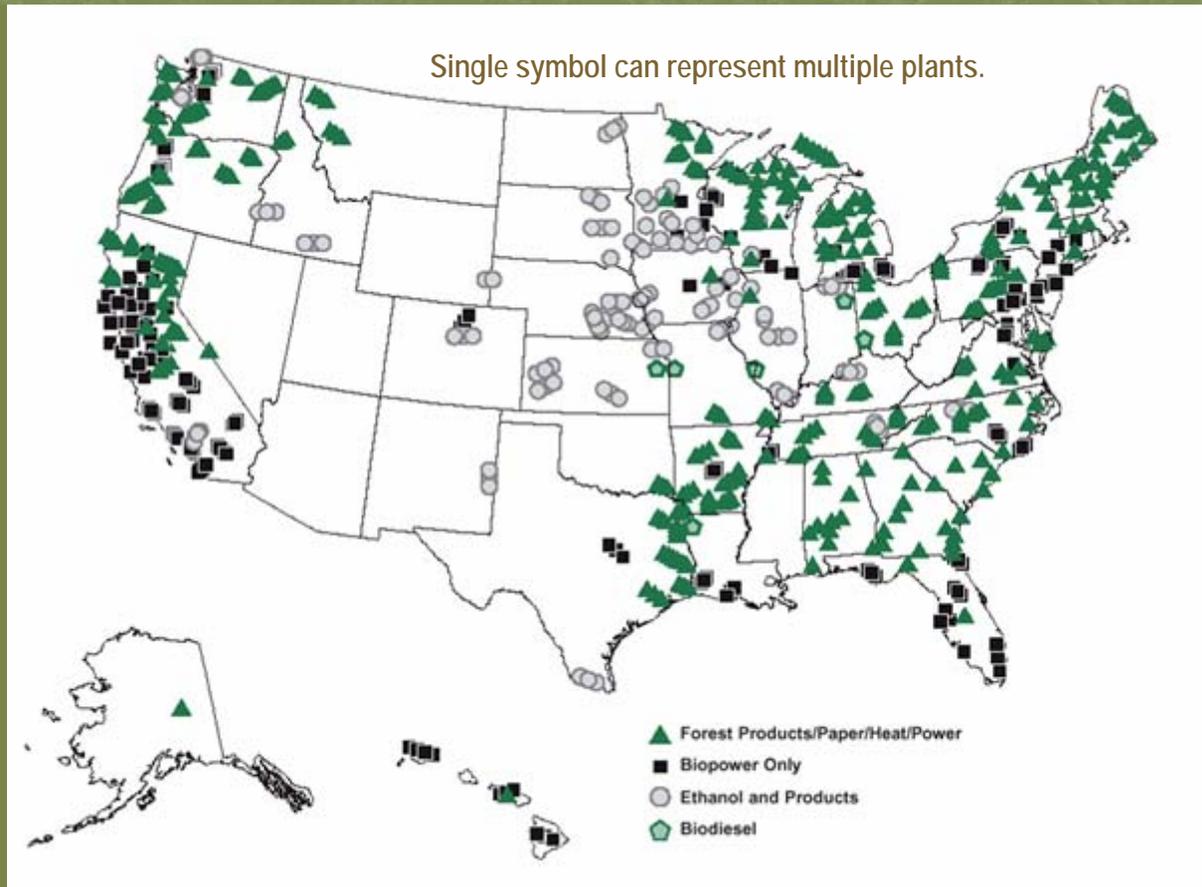
U.S. Biomass Resources



U.S. Ethanol Biorefineries

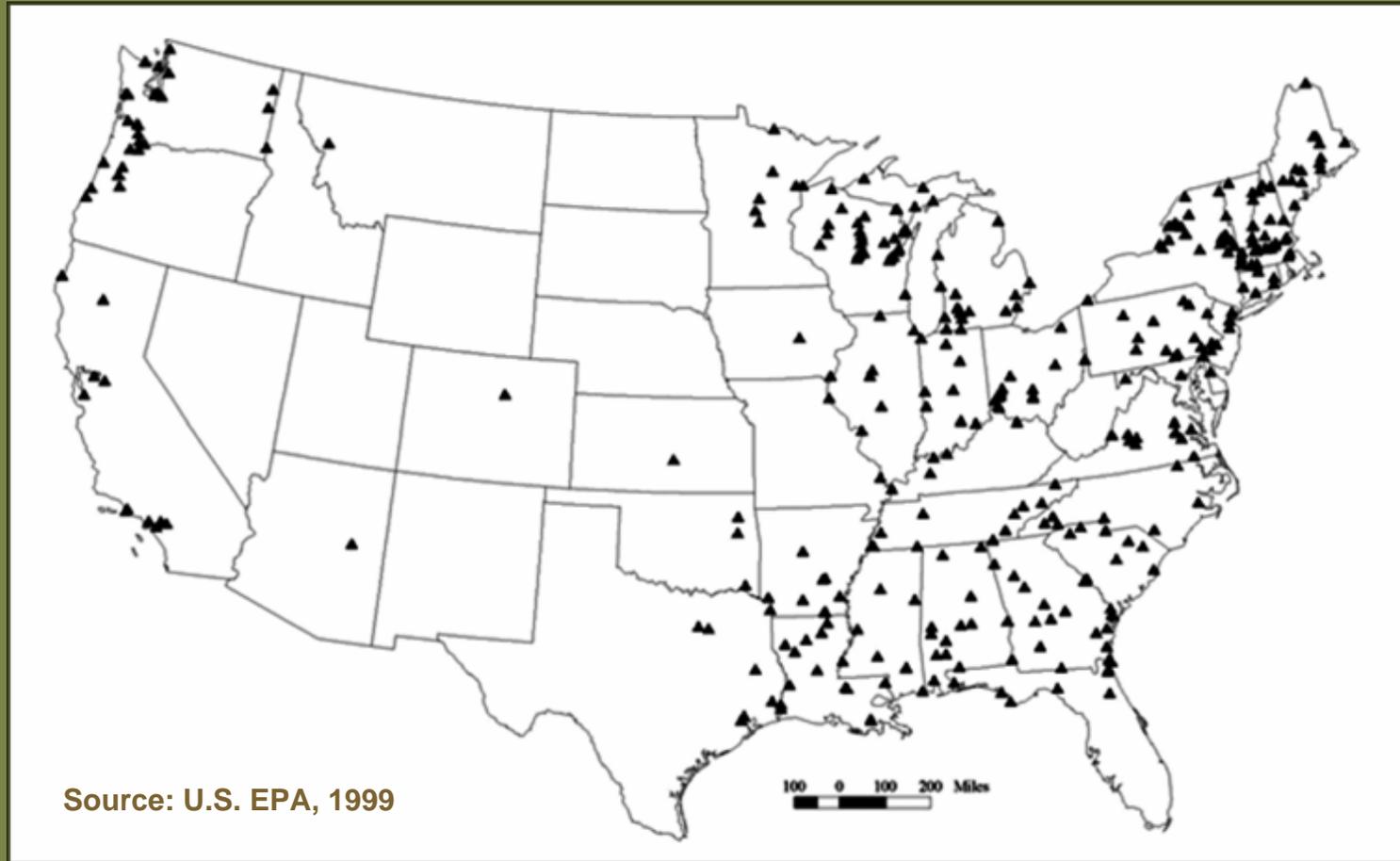


U.S. Biomass Facilities



Heat, Power, Ethanol, and Biodiesel Products

Pulp, Paper, Paperboard Mills



Competitive Grants Program

Targeted priorities include:

- Economic competitiveness of hardwood industries
- Providing information and technology (assist existing and emerging businesses, biomass, urban wood utilization, hazardous fuels reduction)
- Encourage adoption of new technology
- Support entrepreneurs and startup businesses
- Address global issues – invasive species

Competitive Grants Program

Additional priorities:

- Providing training at the facility
- Developing user-friendly publications and software programs
- Results in 12 – 18 months
- Multistate projects
- Demonstrated industry support for WERC projects



WERC Biomass Investments

FY 2005: \$973,121

Nine projects



FY 2006: \$585,566

Ten projects

Utilization Options for Emerald Ash Borer-Killed Ash

- Goal is to minimize removal and disposal costs of EAB-infected ash trees
- Turning wood waste into usable products
- Training urban foresters and tree care workers on proper log manufacturing



WERC FY 2006 Biomass Investments

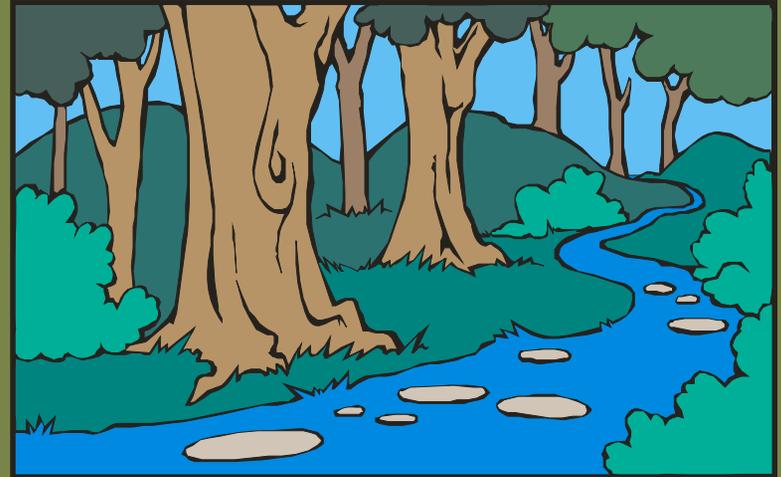
(Ten Projects) \$585,566

- Use of Eastern Hardwoods for Wood Plastic Composites – TN
- Efficacy of Vacuum Control of EAB and Pinewood Nematode Infested Wood – VA
- Design of Rapid Deployment Wood Recovery System After the Disaster – ME
- Ash Utilization Options: Biomass Energy Development and Industry Training – MI
- Assessment of Hardwood Sawmill Chip Availability in Appalachia – WV
- Finger Jointed Wood Packaging Pilot Facility – VA
- Assessing the Opportunity to Use Wood Residues as Commercial and Industrial Fuel Source – WV
- Production of Ethanol from WV Wood Waste – WV
- Eastern Hardwood Region Woody Biomass Energy Opportunity – MA
- Urban Wood Utilization: Finished Wood Products Production – MI

Results and Outcomes

WERC's Investment in Biomass

- Demonstration projects
- More diverse energy portfolio
- Healthier forests
- Less waste along the entire supply and manufacturing chain
- Sustainable forest-based rural communities



WERC Future Biomass Directions

- Feasibility assessments
- Include wide range of biomass options (Include value-added, urban and forest health)
- Expand biomass emphasis in grants program
- Support to NA staff and States
- Develop portfolio of successful demonstration projects
- Develop analytical tools for use by interested parties
- Information dissemination for impact – outreach and library
- Regional biomass conferences and meetings at WERC



NA Biomass Success Stories



New Hampshire Biomass Partnership



CROTCHED MOUNTAIN

OFFERING A LIFELONG ALLIANCE TO PEOPLE WITH DISABILITIES

Planning to install a district heating system for 750,000 square feet of campus buildings



CROTCHED MOUNTAIN HORIZONS

A Newsletter for Families and Friends of Crotched Mountain

Fall 2004
Vol. 4, No. 3

IN THIS EDITION

From the President

David Hedstrom, DDS
Joins Board of Trustees

New Residential Options

Brain Injury Awareness Day
September 19, 2004

The Many Faces of Philanthropy

Rene Paquin, Vision Specialist,
Shares Expertise Abroad

Adaptive Dance Performance
and Workshops October 2
at Fall Festival

Tree House Ribbon Cutting

In the spirit of staying forever young, Crotched Mountain celebrates the opening of New Hampshire's first wheelchair accessible tree house.



Crotched Mountain President and CEO Don Shanway and Dana Arnie, Director of the Christopher Reeve Paralysis Foundation, at the grand opening of the new house. Janet People Magazine article.

Graduation Ceremony Honors 22 Students at Crotched Mountain School June 16, 2004

"Education is about change," said Crotched Mountain School Principal Asher Campbell in his welcome remarks on "how these young men and women have changed" during their years at Crotched Mountain School.

The "tamed woods" is not always an easy find, acknowledged Campbell, citing the family of a day student that traveled 140 miles, round trip, each day over the last four years to attend Crotched Mountain School—an arduous total of 130,000 miles.

Representing the class of 2004, Catelyn Jean told students, families and guests that she "learned how to be happy with myself at Crotched Mountain" and that she "appreciates the help transitioning to the real world." In addition to her studies at Crotched Mountain School, Catelyn attended

Continued on page 4

"May you build a ladder to the stars and climb on every rung. May you stay forever young." *Forever Young* by Bob Dylan

People have come from as far away as California to see it. It's been featured on the front page of the *Wall Street Journal*, in the *Los Angeles Times* and *People Magazine*—even the *Forbes* (*Global*) *New Yorker*—and on local and national radio and television. And now the tree house is open to children of all ages who want to swing gently in the sways of these giant oaks, to enjoy the colors, textures, sounds and smells of the woods and to get away from everyday cares.

Against a green and leafy landscape, and skin that shimmered to rain but held off long enough to complete the ceremony, about 150 donors and volunteers gathered in front of the steps that gently winds 150 ft. through the woods to the tree house for a ribbon cutting and official opening.



Students Jerry Merz and Char Freeman welcomed the guests and introduced Crotched Mountain President and CEO Don Shanway. Shanway spoke of the ingredients of this wonderful project—dreams and financial support and volunteers and how it all came together when young people with disabilities from Crotched Mountain worked side-by-side with students from Carver High School and Grant Brook School to build the tree house.

The *Tree House Poem* was read by its author, Steve Smiles, who is a teaching assistant at Crotched Mountain School.

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VT North Country Hospital Powers with Wood



Fire Hazard Reduction in Minnesota



NA's Biomass Niche

- NA has...



NA's Biomass Niche

- Accessible and available forests



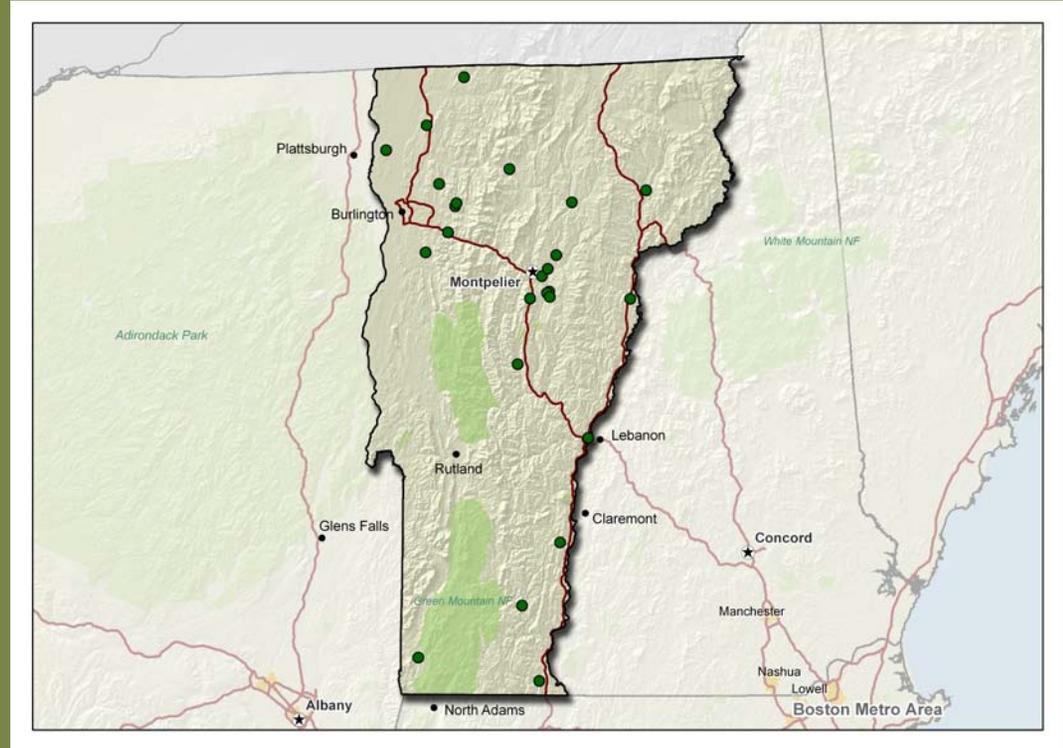
NA's Biomass Niche

- Existing infrastructure



NA's Biomass Niche

- Momentum and a critical mass



NA's Biomass Niche

■ Capacity



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For more information

<http://www.na.fs.fed.us/ea/werc/werc.shtml/>



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