



Michigan Biomass Thermal Energy Organizations

Bill Cook, Forester / Biologist

Regalizatın?



Efforts are individual.

Some are old.

Some are new.

Some are planned.

The background of the slide features a silhouette of a branch with several round, dark fruits, possibly berries or small apples, set against a vibrant sunset or sunrise sky with shades of red and purple. The overall scene is dark, with the text providing a stark contrast.

**Most “biomass” efforts
are to generate power.**

**Biomass thermal is the
ugly cousin that nobody
takes to the dance.**

<http://michiganwoodenergy.org>

FINAL REPORT

**EXPLORING WOODY BIOMASS RETROFIT
OPPORTUNITIES IN MICHIGAN BOILER
OPERATIONS**

9/28/2007

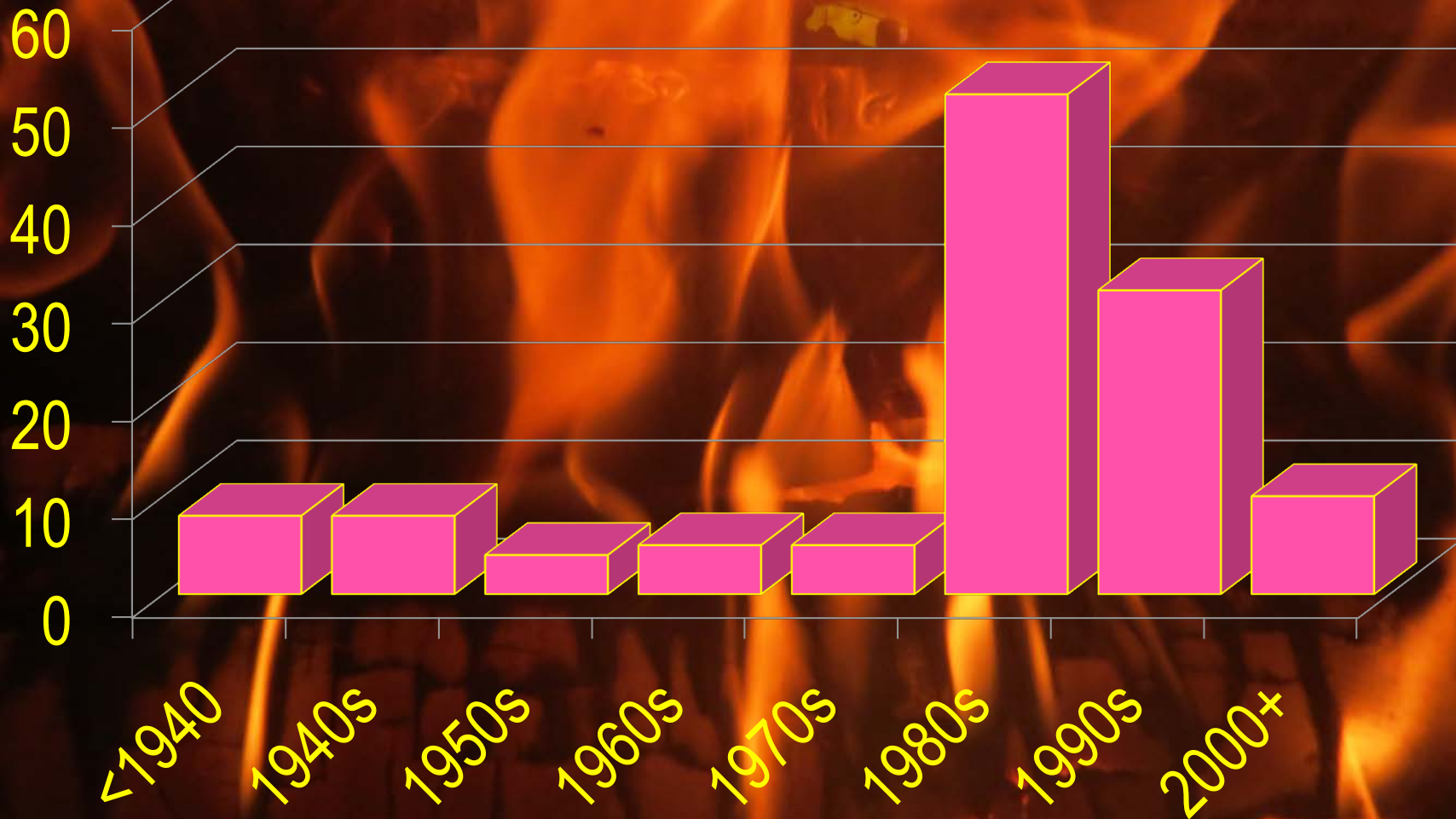
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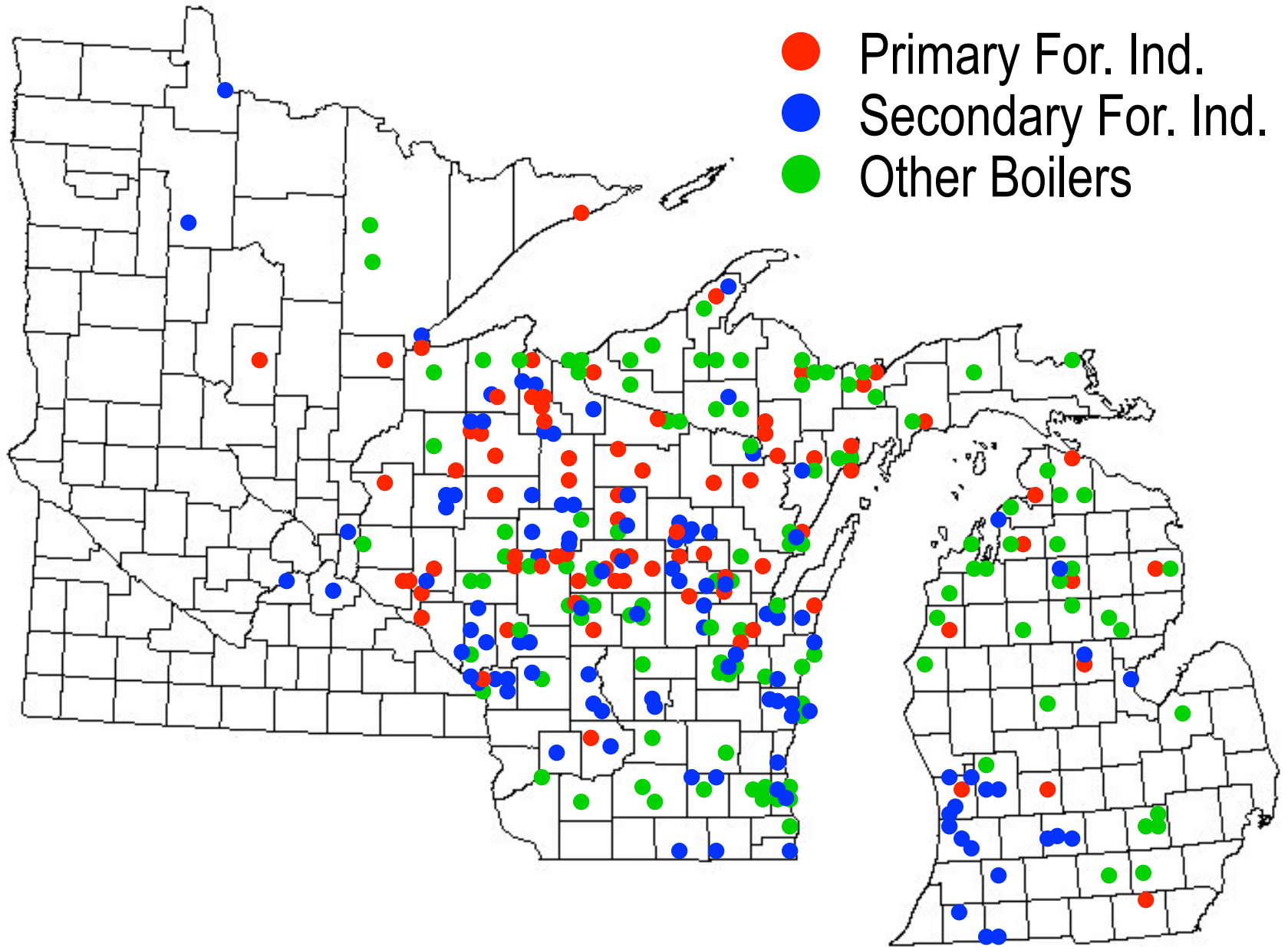
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Project Partners:

Education & Resource Center
Action Program

Michigan Wood-fired Boilers (2005)







- Michigan.gov Home
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Farm anaerobic
 Wind
 Electricity
 Nothing thermal

renewable energy

On October 12, 2008, Public Act 295 was signed into law. This Act, known as the Clean, Renewable and Efficient Energy Act, establishes a Renewable Energy Standard for the State of Michigan. The Renewable Energy Standard requires Michigan electric providers to achieve a retail supply portfolio that includes at least ten percent renewable energy by 2015.

spotlight online services

- [Wind Energy Resource Zone Report 2014](#) PDF
- [Act 295 Renewable Energy Report to Legislature 2014](#) PDF
- [Net Metering Report 2012](#) PDF
- [Report on the Implementation of P.A. 295 Wind Energy Resource Zones](#) PDF
- [Implementation of Wind Energy Resource Zones 2012](#) PDF
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- [Synopsis of MI Renewable Energy Legislation](#) PDF
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- Database of State Incentives for Renewable Energy (DSIRE)
 - US DOE Efficiency & Renewable Energy Network
 - Michigan State Energy Office
 - GLREA - Great Lakes Renewable Energy Association
 - EIA Michigan Renewable Electricity Profile



MPSC
Mission

The mission of the Michigan Public Service Commission is to grow Michigan's economy and enhance the quality of life of its communities by assuring safe and reliable energy, telecommunications, and transportation services at reasonable rates.



“Wood burning biomass plants make a significant contribution to Michigan’s renewable energy portfolio. For 2010, EIA data show that wood burning biomass plants were the primary source of renewable energy for the state.”



**Yet, NO programs to
build upon that success
or support expansion of
biomass thermal.**

**But, programs for
nearly everything else.**



Upper Peninsula

*Resource Conservation
and Development Council*



BURN-UP

Biomass Utilization & Restoration Network
for the Upper Peninsula

Grant-funded through 2009
Information & demonstrations

<http://www.upwoodybiomass.org>



Michigan DOES have biomass thermal.

Older Achievement Highlights

Pinecrest Health Care

Several schools

Many forest product mills

**Many non-forest industry
facilities**



Recent Achievement Highlights

NMU Boiler

Verso Biomass Boiler

L'Anse Warden

Bordine Nursery

Oakland University

Biogenic Reagents



Upcoming Achievement Highlights

MSU Simon Plant

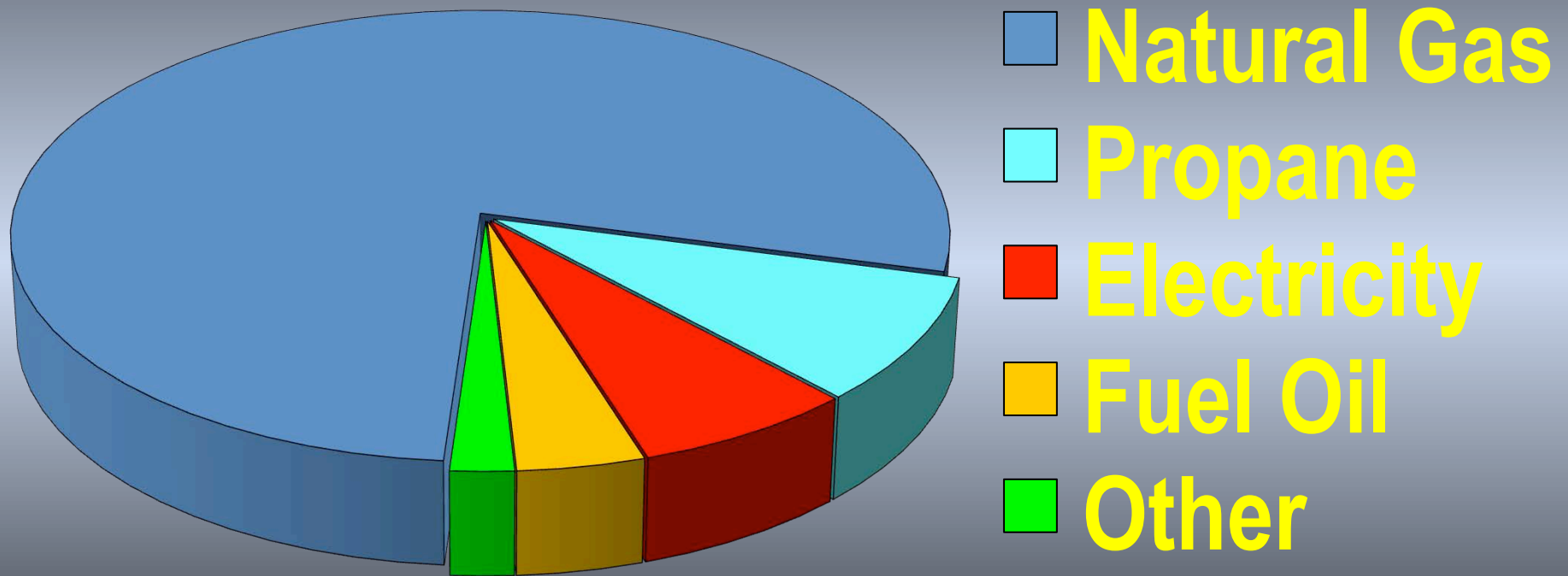
Escanaba Power Plant

Battle Creek VA Hospital

“WUPPDR” & U.P. Biomass

Michigan State University - FBIC

Firewood - Home Heating





275,000 CORDS OF WOOD

(million cum, ~300,000 dry tons)

Michigan adds ~31 of these piles each year

Heat for 55,000 homes

54 Pinecrest DE facilities

(over 9 million square feet)

23% of NewPage consumption

87% of Potlatch mill in the U.P.

~32 million gallons ethanol

Governor's Forestry Summit

April 2013

Biomaterials Initiative

October 2013

Future?



Organization?
Yeah, we could use some.



