



Heating the Midwest

*The State of Biomass Thermal: How the Industry is
Positioned for Growth in Minnesota*

April 10, 2017

Outline

- Background on Clean Energy Economy Minnesota
- Context setting in MN
- State legislative updates
- Looking ahead

About Clean Energy Economy Minnesota (CEEM)

CEEM is an industry-led non-profit organization dedicated to strengthening Minnesota's clean energy business ecosystem.

Our Mission:

To provide educational leadership, collaboration, and policy analysis that accelerates clean energy market growth and smart energy policies.

- We promote the business case for energy efficiency and clean energy to drive innovation and expand markets.

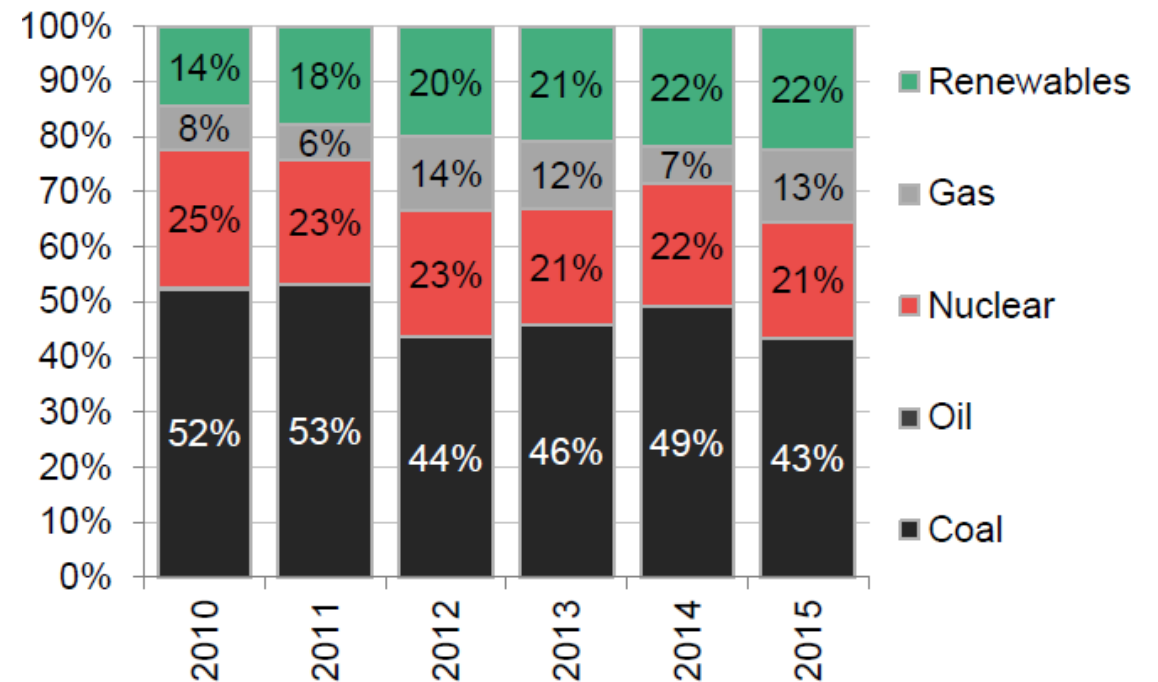
Our Members and Partners



A Remarkable Energy Transformation in MN

- MN spends up to **\$18B** per year on imported fossil fuels
- Renewable generation is trending upwards due in large part to strong state policy support
- Retail electricity price was 9.5 cents/kWh v. US average 10.5 cents/kWh in 2015
- Despite progress, MN is behind on meeting GHG reduction targets

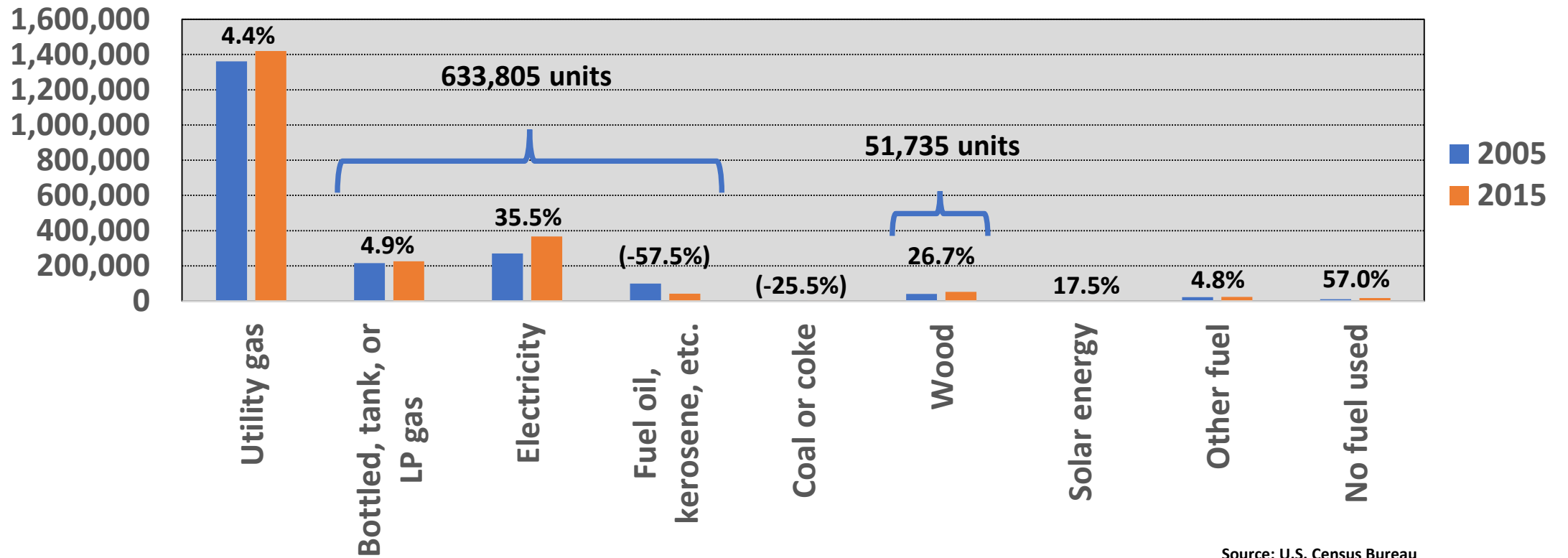
MN Electricity Generation Mix by Technology



Source: Bloomberg New Energy Finance

Snapshot of Biomass Heating - MN

Occupied Housing Units by House Heating Fuel
% Change



Source: U.S. Census Bureau

Biomass Thermal/CHP Policy Priorities MN Legislature

- Republican control of MN Legislature
 - 77 GOP – 57 DFL; GOP extended majority in House
 - 34 GOP – 33 DFL; GOP flipped majority in Senate
- SF 1937/HF 2209 Energy Omnibus Bills heading to Conference Committee
- HF 2209 – Adjustment of Biomass Fuel Requirement/Biomass Power Mandate; amends or terminates Xcel Energy PPA's; jeopardizes 400,000 cords of wood annually
- Introduced SF 728/HF 917 Residential Biomass Heating System Tax Credit



Rep. Pat Garofalo (R)
District: 58B

Chair: House Job Growth and
Energy Affordability Policy and
Finance Committee

Home: Farmington



Sen. Dave Osmek (R)
District: 33

Chair: Senate Energy and Utilities
Finance and Policy Committee

Home: Mound

MN Statewide Wood Energy Team

- MN DNR received a 3-year \$250k grant from the U.S. Department of Agriculture
- Focused on enhancing the use of renewable wood energy systems throughout the state
- Primary objective is to replace fuel oil and propane systems in commercial and institutional buildings with innovative wood energy systems
- Engineering assistance provided to evaluate and conduct feasibility analyses



Source: MN DNR



Project Stove Swap

- Environmental Initiative's voluntary program in 17 Northeastern MN counties in partnership with Minnesota Power
- Provides financial incentives to consumers, businesses, and non-profits to replace older wood heating appliances
- Includes EPA-certified woodstoves and fireplace inserts, pellet stoves and inserts, forced air furnaces, and hydronic heaters
- Incentive amounts vary by appliance and income level (up to \$4k general; up to \$10k income-qualified)



Source: Environmental Initiative

Interested in being a participating vendor?

Contact:

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50% by 2030 Renewable Energy Standard

“If we redouble our efforts, and raise Minnesota’s Renewable Energy Standard to 50 percent by 2030, we will improve air quality, continue to drive down the cost of renewable energy, and generate thousands of new energy jobs.” – Lt. Gov. Tina Smith

Opportunities for CHP and Biomass Thermal:

- Expand CIP goals and incentives to promote use of utility and non-utility-owned CHP
- Expand RES to include goals for CHP technologies and provisions for RES credit to encourage use of biomass thermal energy
- Require electric utilities to demonstrate they have considered CHP opportunities before building new generation capacity



Stay Involved!

- Very few lawmakers with background and knowledge on energy policy
- Opportunity for businesses to organize and educate around pro-market and pro-consumer messages
- Jobs, Jobs, and Jobs; >2,000 new jobs annually over 15 years with expansion of CHP
- Would help achieve 10 percent of the emission reductions needed to be on target in 2030
- CHP can be integrated into microgrids to operate independent of the grid; improves resiliency



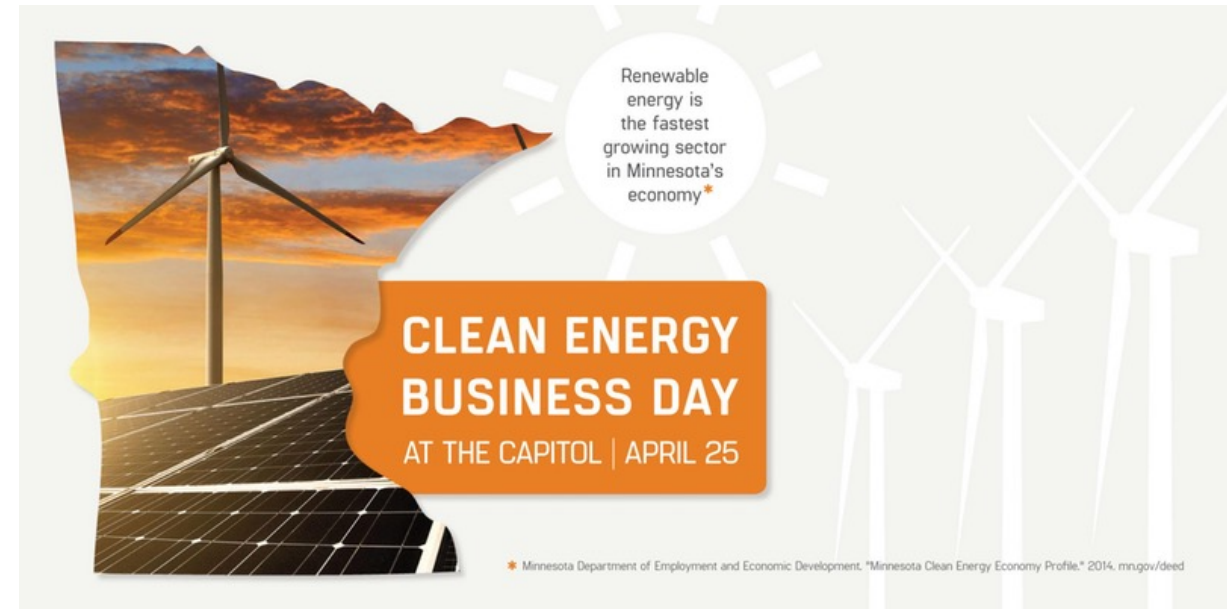
Your business voice and leadership on these issues matter!

Clean Energy Business Day at the Capitol

WHO: Businesses involved with advancing and integrating energy efficiency and clean energy technology

WHY: Educate lawmakers on key bills and how policy impacts business planning and investment decisions

WHEN: April 25, 2017



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