



Ecosystem Workforce Program

BRIEFING PAPER
NUMBER 72
SPRING 2017



THE EFFECT OF STATE AND FEDERAL POLICIES ON BIOMASS BUSINESS INVESTMENTS IN MICHIGAN

DENNIS BECKER, JESSE ABRAMS, EMILY FENSTER, JORDAN KUDRNA, TIMOTHY SMITH, and CASSANDRA MOSELEY

Wood-based biomass energy plays a key role in Michigan's wood products economy and in the state's commitment to renewable energy. The state has developed numerous policies and programs to support biomass energy harvesting, transportation, and production, and the federal government has implemented policies to support related business development. The research reported here investigates what policies have been most important in fostering biomass business investments in Michigan and in creating strategic opportunities along the biomass supply chain.

Biomass business survey

A total of 83 biomass harvest and transportation firms, wood-using utility companies, wood pellet and densified fuel producers, and institutional wood heat or electricity users were identified in Michigan. We surveyed 29 of these businesses in 2014 to understand the influence of state and federal policies on decisions to invest in wood energy production.

Surveyed businesses identified a total of 29 significant energy-related investments made between 1998 and 2014. These investments included:

- Purchasing new harvesting, processing, and transportation equipment
- Increasing system energy efficiency
- Utilizing new types of wood byproducts to produce energy
- Adding other technological, process, and market investments

Key findings

Nearly one-fourth of biomass investments were influenced by federal or state policies. Michigan respondents identified fewer influential policies overall than respondents from other states. Respondents said

Michigan

- We identified identified **83 biomass firms** in the State of Michigan (harvesters/haulers, wood energy producers, pellet producers, and institutional wood heat users).
- Of the biomass-related investments made, **24%** were influenced by policy.
- The **Biomass Crop Assistance Program** was the policy most frequently identified as influential on business investment decisions.
- Michigan biomass representatives expressed the **need for enhanced** state and federal **policy alignment**, and expressed concerns about the **complicated application process** associated with some incentive programs.

that seven (24%) of the 29 significant investments made were explicitly influenced by public policies. Institutional biomass users (such as hospitals and schools) identified the largest number of influential policies, followed by businesses involved in biomass harvesting and transportation and power and util-

ity companies. Pellet producers did not identify any influential policies. Market forces were the primary influence on the other 22 investments.

Financial disbursement policies were deemed most influential. For those investments influenced by state or federal policy, the most influential policies reported were financial disbursements (e.g., grants, loans, cost-share programs, and direct payments). The second most influential policy type was governmental rules and regulations. This matches with our nationwide research showing that financial disbursements were associated with increases in wood energy production across all states in the U.S.

Most of the influential policies were federal. The federal Biomass Crop Assistance Program was the policy most frequently mentioned by responding businesses. This policy provided funds to match payments to eligible material owners for the delivery of qualified feedstock to biomass conversion facilities. Businesses reported that this policy stimulated equipment upgrades, such as new chippers. Another explicitly identified federal policy was the Clean Air Act, which drove one firm to improve its conveyance systems and emissions efficiency. Another institutional user took advantage of an unnamed USDA grant, which allowed for several equipment and process upgrades, including boiler upgrades, an automated chemical feed unit, and new variable frequency drives.

The only non-federal policies mentioned by respondents were a local University Energy Action Plan, which drove one firm to improve conveyance systems and emissions efficiency, and an equipment grant from the Southeast Michigan Resource Conservation and Development Council (since renamed Sustainable Resources Alliance), which allowed one firm to invest in a new boiler.

Policy design may limit uptake. Respondents voiced a number of concerns regarding the complicated application processes associated with biomass incentive

programs. Others complained that policies were not straightforward and easy to understand. Some businesses felt that renewable energy policies privileged wind and solar energy production over biomass, putting them at a competitive disadvantage. However, not all businesses or users expressed negative views. Those who received some form of financial support for biomass production expressed generally positive experiences.

Implications

The results from Michigan broadly match those from the other states in the study (California, Minnesota, Oregon, Washington, and Wisconsin):

- Market forces, rather than public policies, were the driving force behind most reported business investments. However, nearly one-fourth of identified investments were influenced in some way by public policies.
- Michigan businesses that utilized financial disbursement policies had generally positive experiences.
- Michigan biomass business representatives expressed a desire to see more transparency and consistency in biomass policy administration as well as enhanced federal and state policy alignment.
- Respondents raised complaints about the applicability of policies to local supply chains and the corresponding distribution of financial assistance.

These findings point to the need to consider the suite of factors and policies, including many state and federal non-biomass regulatory policies, that affect the biomass energy sector. These findings also suggest the need for coordination of state and federal policies across supply chains and jurisdictions, and to consider the unique needs of Michigan's diverse biomass supply chain participants.

More information

For more information on specific state renewable energy policies, please visit:

<http://woodenergyproject.com/StatePolicies/>

This project was supported by Agriculture and Food Research Initiative Competitive Grant no. 2013-67009-20396 from the USDA National Institute of Food and Agriculture and an agreement with the U.S. Forest Service Pacific Northwest Research Station, agreement no. 13-CR-11261975-093. Header photo by Kendrick Moholt.