



# Ecosystem Workforce Program

BRIEFING PAPER  
NUMBER 74  
SPRING 2017



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

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

**W**ood-based biomass energy plays a key role in Oregon'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 Oregon and in creating strategic opportunities along the biomass supply chain.

### Biomass business survey

A total of 93 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 Oregon. We surveyed 48 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 71 significant energy-related investments made between 1989 and 2014. These investments included:

- Installing new or upgraded boilers
- Purchasing new harvesting, transportation, and processing equipment
- Adding co-generation facilities to existing wood products plants
- Utilizing new types of wood byproducts to produce energy
- Investing in air quality and workplace safety upgrades
- Adding other technological, process, or market investments

### Key findings

*A majority of biomass investments were influenced by federal or state policies.* Respondents said that

### Oregon

- We identified identified **93 biomass firms** in the State of Oregon (harvesters/haulers, wood energy producers, pellet producers, and institutional wood heat users).
- Of the biomass-related investments made, **52%** were influenced by policy.
- The **Biomass Producer or Collector Tax Credit** was the policy most frequently identified as influential on business investment decisions.
- Oregon biomass representatives expressed concern that the **application requirements** for biomass incentives were **onerous**, policies had **unintended consequences**, and a lack of stability in the policy landscape created **uncertainty**.

37 (52%) of the 71 significant investments made were explicitly influenced by public policies. Businesses involved in biomass harvesting and transportation identified the largest number of influential policies, followed by power and utility companies, institutional biomass users (such as hospitals and schools), and pellet producers. Market forces were the primary driver of the other 34 investments.

**Financial disbursements and tax 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 policies were tax policies (e.g., exemptions, allowances, deductions, and credits). This matches with our nationwide research showing that financial disbursement and tax policies were associated with increases in wood energy production across all states in the U.S.

**Both state and federal policies were important.** The Biomass Producer or Collector Tax Credit was the policy most frequently mentioned as influential by responding businesses. This state policy provides a tax credit for qualified biomass used to produce biofuel or electricity generated from anaerobic digestion, pellets, or torrefaction. Businesses reported that this policy stimulated several equipment upgrades. Another tax credit explicitly identified was the Oregon Business Energy Tax Credit, which was enacted to boost alternative energy expansion. Businesses reported that this policy stimulated investments in production processes, operational efficiency, and new or upgraded equipment. Another policy explicitly identified was the state Tax Credit for Renewable Energy Equipment Manufacturers, which provided tax credits for the construction and installation of renewable energy systems. This policy prompted several businesses to invest in equipment upgrades, such as new chippers.

Oregon biomass firms also took advantage of financial disbursement and regulatory policies. Some businesses invested in process changes and equipment upgrades as a result of the federal Biomass Crop Assistance Program, which provided funds to match payments to eligible material owners for the delivery of qualified feedstock to biomass conversion facilities. Other businesses identified the federal American Recovery and Reinvestment Act, which helped increase and diversify market-related opportunities and helped businesses to “remove fossil fuels” from their operations. Another federal policy explicitly mentioned was the Clean Air Act, which drove firms to update their emissions equipment. Businesses also identified the state Renewable Energy Portfolio Standard, which mandates a minimum proportion of renewable sources in the state’s energy portfolio (as of 2016, the mandate is that 50% of the state’s energy

must come from renewable sources by 2040). This policy prompted businesses to invest in new designs, product sourcing, and testing of new products.

**Policy design may limit uptake.** Respondents voiced a number of concerns regarding the application requirements for biomass incentives and the lack of stability in the policy landscape. A common complaint was that policies had unintended consequences; for example, some felt that federal air quality and national forest management policies worked against the establishment of a robust biomass sector. Some businesses complained about sudden changes in program guidelines, such as the change from green tons to bone-dry tons in the Biomass Producer or Collector Tax Credit. Others complained about what seemed like a sudden exhaustion of funds in the Biomass Crop Assistance Program. 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 Oregon broadly match those from other states in the study (California, Michigan, Minnesota, Washington, and Wisconsin):

- Financial disbursement and tax policies were reported to be the most influential on investments made. This is consistent with national analyses showing a relationship between increased wood energy use and state disbursement and tax policies.
- Oregon respondents more frequently identified policies as influential on wood energy investments than did respondents from other states.
- Oregon businesses that utilized financial disbursement and tax policies expressed generally positive experiences.

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 Oregon’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 Marcus Kauffman, Oregon Department of Forestry.*

The University of Oregon is an equal-opportunity, affirmative-action institution committed to cultural diversity and compliance with the Americans with Disabilities Act. This publication will be made available in accessible formats upon request. © 2017 University of Oregon.