



# Ecosystem Workforce Program

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

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

### Biomass business survey

A total of 47 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 Washington. We surveyed 15 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 17 significant energy-related investments made between 2004 and 2014. These investments included:

- Installing new or upgraded biomass boilers
- Opening new domestic and international markets for products
- Investing in new types of wood processing and storage technology
- Adding other technological, process, or equipment investments

### Key findings

**Nearly half of biomass investments were influenced by federal or state policies.** Respondents said that eight (47%) of the 17 significant investments made were explicitly influenced by public policies.

### Washington

- We identified identified **47 biomass firms** in the State of Washington (harvesters/haulers, wood energy producers, pellet producers, and institutional wood heat users).
- Of the biomass-related investments made, **47%** were influenced by policy.
- The **Biomass Crop Assistance Program** was the policy most frequently identified as influential on business investment decisions.
- Washington biomass representatives expressed concerns about the **unintended consequences** of biomass promotion policies and the **ineligibility of federal wood** for renewable energy incentives.

Power and utility companies identified the largest number of influential policies, followed by institutional biomass users (such as hospitals and schools), biomass harvesting and transportation firms, and pellet producers. Market forces were the primary influence on the other nine investments.

**Financial disbursements, tax policies, and governmental rules and regulations were deemed most influential.** For those investments influenced by state or federal policy, the most influential policies reported were tax policies (e.g., exemptions, allowances, deductions, and credits), financial disbursements (e.g., grants, loans, cost-share programs, and direct payments), and government rules and regulations. 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 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. One firm reported that this program helped them obtain woody material to later convert to chips for sale to local and international biomass energy markets. The only other financial policy explicitly mentioned was a state hog fuel tax exemption, which prompted one firm to upgrade their electrical generator and hog fuel dryer. Several other unnamed grants and tax credits were listed by businesses as directly influencing investment decisions.

Washington biomass firms were also influenced by regulatory policies. A federal policy explicitly identified was the Clean Air Act, which drove one firm to invest in a new boiler. Businesses also reported that Bonneville Power Administration's Energy Smart Industrial program prompted operational equipment upgrades, such as added automated control systems. The program was formed to support Bonneville Power Administration's industrial customers with efficiency investments. Another policy explicitly identified was the state Forest Biomass Initiative, which was implemented to foster the development of forest biomass-to-energy pilot projects and demonstrations. Businesses reported that this policy stimulated equipment upgrades, such as the installation of combined heat and power equipment.

**Policy design may limit uptake.** Respondents voiced a number of concerns regarding the unintended consequences of policies. For example, some felt that the sudden exhaustion of Biomass Crop Assistance Program funds harmed new biomass businesses that expected the assistance program to continue. Others complained that federal Clean Air Act regulations made their operations too difficult and worked against the establishment of a robust biomass industry. Some businesses complained that national forest management policies had narrowly defined provisions that excluded wood energy production from receiving incentives.

## Implications

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

- Financial disbursements, tax policies, and governmental rules and regulations were reported to be the most influential on investments made. This is consistent with national analyses showing a relationship between increased wood energy use financial disbursement and tax policies.
- Washington respondents identified fewer investments overall than respondents from other states.
- Respondents expressed some frustrations about the lack of stability in the policy landscape and the potentially negative impacts of regulations on the robustness of the biomass industry.

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 Washington's diverse biomass supply chain participants.

## More information

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

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

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