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

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Wood-based biomass energy plays a key role in California’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 California and in creating strategic opportunities along the biomass supply chain.

Biomass business survey

A total of 64 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 California. We surveyed 16 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 27 significant energy-related investments made between 1992 and 2014. These investments included:

- Purchasing new harvesting, transportation, and processing equipment
- Installing new or upgraded boilers
- Investing in emissions control technology
- Utilizing new types of wood byproducts to produce energy
- Adding other technological, process, or market investments

Key findings

Almost one-third of biomass investments were influenced by federal or state policies. Respondents said that eight (30%) of the 27 significant investments

California

- We identified identified **64 biomass firms** in the State of California (harvesters/haulers, wood energy producers, pellet producers, and institutional wood heat users).
- Of the biomass-related investments made, **30%** were influenced by policy.
- California’s **Renewables Portfolio Standard** was the policy most frequently identified as influential on business investment decisions.
- California businesses expressed frustrations with the **design of existing state and federal policies** and with the corresponding **negative impacts of regulations** on the robustness of the biomass industry.

made were explicitly influenced by public policies. Power and utility companies identified the largest number of influential policies, followed by businesses involved in biomass harvesting and transportation. Institutional biomass users (such as hospitals and schools) and pellet producers did not identify any

influential policies. Market forces were the primary influence on the other 19 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 broadly matches with our nationwide research showing that financial disbursement policies were associated with increases in wood energy production across all states in the U.S.

Both state and federal policies were important.

California's Renewables Portfolio Standard was the policy most frequently mentioned by responding businesses. This policy requires electricity providers to increase procurement from renewable resources to 33% by 2020. Businesses reported that this policy stimulated equipment upgrades, such as upgraded emissions technologies and new equipment that allows a firm to use wood byproducts to produce energy. Another explicitly identified policy was the federal Public Utility Regulatory Policies Act, which drove one firm to install a new biomass boiler. This act was established in 1978 to increase energy conservation and stimulate domestic production, including promoting cogeneration.

California biomass firms also took advantage of financial disbursement and tax policies. One firm invested in biomass transportation equipment 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. Another policy explicitly identified was the state Public Interest Energy Research program, which was enacted to foster research and development programs that drive innovation and help advance renewable energy technologies and efficiencies. Businesses also mentioned the state Self-Generation Incentive Program, which offers rebates to firms that produce electricity from various renewable sources. Several other unnamed grants and tax credits were listed by businesses as directly influencing investment decisions.

Policy design may limit uptake. Respondents voiced a number of concerns regarding the design or implementation of individual policies and the interactions among policies. A common complaint was the unintended consequences of policies; for example, some felt that the Biomass Crop Assistance Program benefited some businesses to the detriment of others. Others complained that state and federal tax credits privileged wind and solar energy production over biomass, putting them at a competitive disadvantage. Some businesses felt that federal Clean Air Act regulations made their operations too difficult. Others complained of the difficulties with accessing raw material on federal forestlands.

Implications

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

- Financial disbursement 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 financial disbursement and tax policies.
- California respondents more frequently identified regulatory policies as influential than did respondents from other states. California businesses also expressed the greatest frustration with the role of environmental regulations.
- Respondents raised complaints regarding the design of existing state and federal policies and the alignment of biomass promotion policies with other regulatory policies.

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 California'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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