

# Ecosystem Workforce Program

BRIEFING PAPER NUMBER 33

FALL 2011



## IMPACTS OF THE BIOMASS PRODUCER OR COLLECTOR TAX CREDIT ON OREGON'S WOOD FUELS MARKET AND ECONOMY

MAX NIELSEN-PINCUS, MATT KRUMENAUER, KATE MACFARLAND, AND CASSANDRA MOSELEY

In recent years, federal and state governments across the United States have sought to foster the development of renewable energy using a variety of policies. One such program is Oregon's Biomass Producer or Collector (BPC) tax credit, which encourages the production, collection, and transportation of biomass for biofuel production. Relatively little is known about how policies such as the BPC tax credit affect woody biomass utilization, making it difficult to know which policies are the most effective at fostering biomass energy development. This briefing paper reports the results of an evaluation of the effects of the BPC tax credit on the Oregon's wood fuel market and economy.

### Approach

We developed statistical models to forecast the price of wood fuels and the volume of forest biomass used in the wood fuels market and compared them to actual volume and prices before and after the BPC tax credit was implemented. We then developed economic impact models of forest biomass production based on biomass production cost data from the Oregon Department of Forestry and a financial survey of biomass producers who applied for the credit.

### Findings

Approximately 85 percent of the BPC tax credit in 2010 was awarded to collectors of forest biomass from logging slash or stewardship projects, offering \$10 per green ton of forest biomass delivered to bioenergy facilities. Forest biomass certified by the BPC tax credit program in 2010 traveled an average of over 100 miles from forest

to bioenergy facility. Our analysis of the BPC tax credit indicates the program has:

1. Helped prices in the wood fuels market remain competitive
2. Supported between 32 and 73 Oregon jobs in 2010
3. Created more economic activity than the program costs in foregone tax revenue.

### BPC tax credit effects on the wood fuel market.

The start of the BPC tax credit program in 2007 coincided with a severe recession and crash in the housing and forest products markets. The reduced availability of mill residuals for bioenergy feedstocks increased the demand for forest biomass. Our research suggests that the BPC tax credit likely affected the wood fuels market by preventing higher feedstock prices and lower market volumes that would have otherwise occurred. The tax credit likely improved the margin



UNIVERSITY OF OREGON

INSTITUTE FOR A SUSTAINABLE ENVIRONMENT

5247 University of Oregon

Eugene OR 97403-5247

T 541-346-4545 F 541-346-2040

ewp@uoregon.edu • ewp.uoregon.edu

on forest biomass production. Forest biomass volume increased between 100,000 and 190,000 bone dry tons (BDT) more than the forecast models predicted for 2007 – 2010, and prices were about \$7 per BDT less than predicted after the BPC tax credit became available. Funding from the USDA Biomass Crop Assistance Program and American Recovery and Reinvestment Act are other likely contributors to these trends in the wood fuels market. The BPC tax credit and these other government interventions appear to have been successful in incentivizing bioenergy production from forest biomass.

**Economic impacts of the BPC tax credit on Oregon's economy.** At a time of high unemployment, government budget deficits, and market weakness, the BPC tax credit appears to be an economic lever that has incentivized more economic activity than it cost. Our research indicates that collection and delivery of biomass under the BPC tax credit program created an average of about five jobs, nearly \$250,000 in wages and benefits, and over \$850,000 in to-

tal economic activity per 10,000 BDT of forest biomass. Based on the Oregon Department of Energy's (ODOE) accounting of certified tax credits for 2010, and our economic impact and wood fuels market models, we estimate that the forest biomass portion of the tax credit program likely supported between 32 and 73 jobs in Oregon in 2010, and approximately 11 to 24 percent of the forest biomass portion of the wood fuels market. The results also indicate that BPC tax credit program, independent of other policy incentives, likely generated at least as much value for Oregon's economy as the program cost in foregone tax revenues, and may have produced up to 2.4 times more value for Oregon's economy than it cost.

### **More Information**

The complete report, EWP Working Paper #32, "Impacts of the Biomass Producer or Collector Tax Credit on Oregon's Wood Fuels Market and Economy" is forthcoming on the web at [ewp.uoregon.edu](http://ewp.uoregon.edu).

---

*This briefing paper was made possible with funding from the Oregon Department of Energy.*