



Bioenergy Policy Incentives

FACT SHEET 6.4

INTRODUCTION

Bioenergy, including forest biomass for energy, is a promising energy source. As outlined in other fact sheets, this source of energy has many benefits to society and the environment. Advancing the production and consumption of bioenergy will likely require incentives beyond those currently available to energy producers and consumers. These incentives could include tax credits, exemptions, grants, loans, and cost-share programs. Given that the environmental and social benefits induced from bioenergy production and consumption are not fully accounted for in the market price, these types of incentives offer promise.

Many federal and state policies support bioenergy development. This fact sheet focuses on incentive programs, particularly those related to the producers of forest biomass. Incentives for bioenergy are currently offered primarily by federal and state governments. At the federal level, several current legislations such as the Energy Policy Act of 2005, the Healthy Forests Restoration Act of 2003, and the Farm Security and Reinvestment Act of 2002 address the provision of such incentives. While federal programs are the most visible, many states also have incentives for businesses interested in developing renewable energy sources. Many of these incentives are in the form of tax credits.

FEDERAL POLICY LEGISLATION RELATED TO BIOENERGY

The *Energy Policy Act of 2005* includes provisions for funding research, development, demonstration, and commercial application activities related to bioenergy development for the fiscal years 2007–2009. Major programs related to forest biomass and bioenergy are:

- GRANTS FOR THE UTILIZATION OF FOREST BIOMASS DERIVED FROM PREVENTIVE TREATMENTS SUCH AS FIRE HAZARD REDUCTION, DISEASE OR INSECT INFESTATION CONTROL, AND FOREST HEALTH RESTORATION (SECTION 210)
 - Up to \$20/green ton for the utilization of this biomass (though this program is not currently funded).
 - Up to \$500,000 to individuals engaged in developing or researching opportunities to improve the use of or add value to this biomass.
- EXTENSION OF THE RENEWABLE ELECTRICITY PRODUCTION CREDIT THROUGH DECEMBER 31, 2007 (SECTION 202). The credit is 0.75 cents/kWh for open-loop biomass, including forest-related biomass, for a term of 10 years.
- PRODUCTION INCENTIVES FOR CELLULOSIC BIOFUELS (SECTION 942). Its main purpose



is to accelerate the deployment and commercialization of biofuels by delivering the first one billion gallons in annual cellulosic fuels production by 2015. Incentives are based on set payments per gallon of biofuel produced. Priority will go to those projects that demonstrate great potential for local and regional economic development, include agricultural producers or cooperatives as equity partners, and agree to provide fair compensation to feedstock suppliers.

- **SMALL BUSINESS BIOPRODUCT MARKETING AND CERTIFICATION GRANTS.** This program is to provide working capital for the marketing of bio-based products and the certification of bio-based products (USDA Certified Bio-based Products as described in the Farm Security and Rural Investment Act of 2002). The grants are limited to \$100,000, with preference given to those entities with fewer than 50 employees.
- **REGIONAL BIOECONOMY DEVELOPMENT GRANTS.** These grants are available to regional bioeconomy development associations, agricultural or energy trade associations, and land grant institutions. The grants are to be used to support and promote the growth and development of a regional bioeconomy served by the entity applying for the grant. Competitive grants are available to enterprises owned by agricultural producers to demonstrate innovations in harvesting and preprocessing of feedstocks for ethanol, heat, or electricity production.
- **FINANCING FOR BIO-REFINERY DEMONSTRATIONS.** These demonstrations should be located throughout the country. In addition they should involve demonstration of

collecting and treating biomass lignocellulosic feedstocks and producing various products including transportation fuels, high-value bio-based chemicals, substitutes for petroleum-based products, electricity, and useful heat.

More information about the programs available through the Energy Policy Act of 2005 can be found by accessing the text of the act at <http://thomas.loc.gov/cgi-bin/query/z?c109:H.R.6.ENR>:

Title II of the *Healthy Forests Restoration Act of 2003* encourages the utilization of biomass generated from forest thinnings aimed at reducing the risk of wildfire and disease or insect infestations. The Act amends the Biomass Research and Development Act of 2002 by increasing the funding from \$49 million to \$54 million for research that integrates silviculture, harvesting, product development, processing information, and economic evaluation. It also creates a Biomass Commercial Utilization Grant Program that makes grants to individuals who own or operate a facility that uses biomass for energy production. The funding for this program was authorized at \$5 million annually from 2004 to 2008. Additionally it amends Section 2371 of the Food and Agriculture, Conservation, and Trade Act of 1990 by authorizing a Rural Revitalization Through Forestry program with annual funding of \$5 million from 2004 to 2008. This program focuses on adapting technologies, creating community-based enterprises, and establishing small businesses to use biomass and small-diameter materials. Added value is generated when biomass is used for electricity generation or other higher value bio-based chemicals such as fuels and chemicals. Preference should go to persons in





preferred communities. A preferred community has a population of less than 50,000 and is located near land that is at risk of catastrophic wildfire, disease, or insect infestation.

More information related to the Healthy Forests Restoration Act of 2003 can be found at <http://www.theorator.com/bills108/hr1904.html>.

The *Farm Security and Reinvestment Act of 2002* provides loan and grant programs for rural businesses that are involved in creating energy from biomass sources. Rural Business Opportunity Grants, the Rural Business Investment Program, the Rural Business and Industry Loan Program, and the Renewable Energy Development Loan and Grant Program all provide funding opportunities for rural businesses that include value-added agricultural and forestry products, including bioenergy and biofuels. Value-Added Agricultural Product Marketing Development Grants provide funding to expand markets for value-added agricultural products.

A competitive grant program supports the development of biorefineries to convert biomass into multiple products, including fuels, chemicals, and electricity. These grants were not included in previous farm legislation. Funding was also authorized to assist producers and rural businesses in purchasing renewable energy systems and making energy efficiency improvements.

More information about the Farm Security and Rural Investment Act and its programs can be found by accessing its text at <http://thomas.loc.gov/cgi-bin/query/D?c107:1:./temp/~c107uCjQrr::>

STATE POLICIES AND INCENTIVES

Most state-level bioenergy incentives are currently offered in terms of tax credits. Several states also provide Renewable Energy Production Credits to supplement the similar federal programs. Additionally, some state governments offer grant, loan, and cost-share programs. These programs are generally administered by the state departments of agriculture, energy offices, rural development agencies, or forestry commissions. Some state energy policies such as the Renewable Portfolio Standards do not directly provide incentives, but will foster bioenergy development. A list of all state renewable energy programs is available at the Database of State Incentives for Renewable Energy (<http://www.dsireusa.org>). You can also get more information by contacting your state forestry office, rural development office, state Department of Energy, and state Department of Agriculture. Your state Cooperative Extension office can also be a potential source of information.

There are several state wildfire mitigation programs (<http://www.wildfireprograms.com>) that offer incentives for fuel treatments on private forest lands. Examples of state programs include the Wildfire Mitigation Programs in Mississippi and North Carolina and the Urban Wildland Interface Community Wildfire Preparedness Program in Texas. These state programs are focused on reducing hazardous fuels in high risk areas. Homeowner assistance and education are key areas of focus for the programs.

While not a bioenergy program directly, the Environmental Quality Incentives



Program (EQIP) (<http://www.nrcs.usda.gov/PROGRAMS/EQIP/>) helps private landowners by promoting agricultural production and environmental quality. This includes forest operations in many states. Financial and technical assistance for installing and implementing structural and management practices are available through EQIP. EQIP funds are allocated by the state conservationist based on priority concerns for each state. EQIP priorities differ from state to state and can even differ from county to county.

Technical assistance is also available from federal, regional, and state agencies to help individuals and entities interested in the development of a bioenergy industry in an area. For more information, contact your state forestry office, Cooperative Extension forestry specialist, state conservationist, or local county Extension agent.

These landowner programs are currently geared toward traditional production, conservation and rural development. While all of these programs will play a part in supporting the creation and development of a bioenergy industry, landowner incentives specific to producing woody biomass for bioenergy have not yet been developed. If the goal is to increase biomass for bioenergy, any incentives developed should focus on industry, landowners, and consumers of woody bioenergy.

CONCLUSIONS

The production and utilization of forest biomass and bioenergy generates social, economic, and environmental benefits. Some of these benefits, such as reductions in greenhouse gas emissions and enhancement of national

energy security, accrue not only to bioenergy users but to the entire society and are not currently captured in the marketplace. To overcome the market weakness, public policy and incentives can be used to account for and encourage bioenergy production. Types of incentives include technical assistance, tax treatment, and financing options. They include loans, grants, and production cost share programs for bioenergy development and consumption. This type of support will help ensure the successful development of a bioenergy industry.

To be more effective, bioenergy incentives must address the entire bioenergy value chain including biomass production, energy conversion, end-use services, and consumption in an integrated fashion. Therefore, bioenergy policy should be integrated with policies in agriculture, economic development, energy, and environmental protection.

For more information, refer to the Encyclopedia of Southern Bioenergy (<http://www.forestencyclopedia.com/Encyclopedia/bioenergy>) or Forest Bioenergy (<http://www.southernbioenergy.net/>).

