



## Overview of Bioenergy Programs in the 2014 Farm Bill

Congress has long encouraged the production of renewable energy and products derived from agriculture-based feedstock in pursuit of various policy goals. These goals include U.S. energy security, greenhouse gas emission reduction, and increased demand for U.S. farm products. Since the late 1970s, Congress has employed a wide range of policy mechanisms and incentives to expand the production and use of agriculture-based renewable energy (e.g., tax incentives to blend biofuels with gasoline, loan guarantees to construct production facilities, and a consumption mandate for biofuels). There are multiple energy programs authorized and funded through the farm bill; the most recent farm bill (2014) expires in FY2018. An issue for Congress is whether to continue to support renewable energy and products from agriculture-based feedstock, and, if so, at what cost.

The 2002 farm bill authorized several agriculture-based bioenergy programs. Since that time, the energy title in succeeding farm bills mostly has reauthorized—and in some cases modified—bioenergy programs. For instance, with only a few exceptions, Title IX of the 2014 farm bill (P.L. 113-79) reauthorized the major bioenergy programs from the 2008 farm bill (P.L. 110-246), while providing many of them with mandatory funding (i.e., not dependent on annual appropriations) for the five-year life of the bill, FY2014-FY2018.

A summary of the legislative debate and a brief description of the farm bill bioenergy programs follow. **Table 1** identifies the implementing agency by program and provides authorized funding levels. For more background, see CRS Report R43416, *Energy Provisions in the 2014 Farm Bill (P.L. 113-79): Status and Funding*.

### Legislative Debate

Support for renewable energy and products from agriculture-based feedstock is a perennial issue for Congress. The viability of such energy may require continued support for some time if it is to compete with fossil fuels, promote rural development, and improve the environment. Some argue that it is not appropriate to use federal resources to support such energy or related products, particularly in circumstances where they may not be able to compete on their own in an open market and when disagreement exists about their potential economic and environmental impact. Also, some view the farm bill energy programs as less significant than mandates and tax incentives. The following bioenergy programs appeared in the 2014 farm bill:

**Section 9002: Biobased Markets Program.** Referred to as the BioPreferred Program at USDA. Promotes biobased products through two initiatives: (1) a mandatory purchasing requirement for federal agencies and their contractors and (2) a voluntary labeling initiative for biobased products. Products that meet the minimum

biobased content criteria may display the U.S. Department of Agriculture (USDA) Certified Biobased Product label.

**Section 9003: Biorefinery, Renewable Chemical, and Biobased Product Manufacturing Assistance Program.** Seeks to facilitate the development of new and emerging technologies for advanced biofuels, renewable chemical, and biobased product manufacturing by providing loan guarantees for constructing or retrofitting commercial-scale biorefineries.

**Section 9004: Repowering Assistance Program (RAP).** Provides payments to those biorefineries in existence as of June 18, 2008, that replace fossil fuel-based heat and power systems with renewable biomass. The Secretary of Agriculture determines the amount of the payment. USDA reports it provides funding up to 50% of total eligible project costs.

**Section 9005: Bioenergy Program for Advanced Biofuels.** Provides payments to producers to support and expand advanced biofuels (i.e., not derived from corn starch). One payment type is based on “actual” biofuel production, and a second is for production increases. A cap of 5% of available funds per year is imposed on facilities that exceed an annual capacity of 150 million gallons.

**Section 9006: Biodiesel Fuel Education Program.** Provides grants to nonprofit organizations and institutions of higher education that educate government and private entities that operate fleet vehicles, the public, and others about the benefits of biodiesel.

**Section 9007: Rural Energy for America Program (REAP).** Provides eligible entities (e.g., state, tribe, or local governments; land-grant colleges and universities; rural electric cooperatives; and public power entities) with grants for conducting energy audits and conducting renewable energy development assistance. Also provides loan guarantees and grants for energy efficiency improvement projects and renewable energy systems (RESs). RESs include biofuels, and power generation from wind, solar, biomass, geothermal, ocean, and some hydropower sources. RESs exclude retail energy dispensers (e.g., blender pumps).

**Section 9008: Biomass Research and Development Initiative (BRDI).** Offers competitive funding through grants, contracts, and financial assistance for research, development, and demonstration of technologies and processes for biofuels and biobased products. Eligibility is limited to institutions of higher learning, national laboratories, federal or state research agencies, and private and nonprofit entities.

**Section 9009: Feedstock Flexibility Program (FFP).** Designed to help stabilize sugar prices so as to avoid costly forfeitures under the sugar loan program. Under FFP, USDA’s Commodity Credit Corporation (CCC) may

purchase sugar from processors for resale to ethanol producers for fuel ethanol.

**Section 9010: Biomass Crop Assistance Program (BCAP).** Makes payments to owners and operators of agricultural land and nonindustrial private forest land for establishing, producing, and delivering biomass feedstock to eligible processing plants. Payments include (1) within BCAP project areas, establishment payments for perennial crops and annual payments of up to five years for non-

woody crops and 15 years for woody biomass crops; and (2) matching payments for up to two years for crop collection, harvest, storage, and transportation of qualified biomass.

**Section 9012: Community Wood Energy Program.** Provides matching grants to state and local governments that develop community wood energy plans, purchase and upgrade wood energy systems for public buildings, and establish or expand biomass consumer cooperatives.

**Table I. 2014 Farm Bill Energy Programs: FY2017 Authorized and Appropriated Funding**

Title IX Energy Program Name	Implementing Agency	2014 Farm Bill Section	U.S. Code Citation	2014 Farm Bill Mandatory Funding (M) and Authorization of Discretionary Appropriations (D) for FY2017 (millions of dollars)	FY2017 Appropriation (millions of dollars)
Biobased Markets Program (i.e., BioPreferred Program)	USDA AD	§9002	7 U.S.C. 8102	M - \$3 D - \$2	M - \$3 D - \$0
Biorefinery, Renewable Chemical, and Biobased Product Manufacturing Assistance Program	USDA RD	§9003	7 U.S.C. 8103	M - \$0 D - \$75	M - \$0 <sup>a</sup> D - \$0
Repowering Assistance Program	USDA RD	§9004	7 U.S.C. 8104	M - \$0 D - \$10	M - \$0 D - \$0
Bioenergy Program for Advanced Biofuels	USDA RD	§9005	7 U.S.C. 8105	M - \$15 D - \$20	M - \$15 D - \$0
Biodiesel Fuel Education Program	USDA NIFA and USDA OEPNU	§9006	7 U.S.C. 8106	M - \$1 D - \$1	M - \$1 D - \$0
Rural Energy for America Program	USDA RD	§9007	7 U.S.C. 8107	M - \$50 D - \$20	M - \$50 D - \$0.352
Biomass Research and Development Initiative	USDA NIFA and DOE	§9008	7 U.S.C. 8108(e)	M - \$3 D - \$20 and DOE funding match of \$3	M - \$3 D - \$0 USDA, \$3 DOE
Feedstock Flexibility Program	USDA FSA	§9009	7 U.S.C. 8110	M - SSAN D - Not authorized	M - \$0 D - \$0
Biomass Crop Assistance Program	USDA FSA	§9010	7 U.S.C. 8111	M - \$25 D - Not authorized	M - \$25 <sup>a</sup> D - \$0
Community Wood Energy Program	USDA FS	§9012	7 U.S.C. 8113	M - None provided D - \$5	M - \$0 D - \$0

**Source:** P.L. 115-31, P.L. 113-79, appropriation committee reports, CRS, and various USDA and DOE publications.

**Notes:** AD=Assistant Secretary for Administration; D=discretionary funding; DOE=Department of Energy; FS=Forest Service; FSA=Farm Service Agency; M=mandatory funding; NIFA=National Institute of Food and Agriculture; OEPNU=Office of Energy Policy and New Uses; RD=Rural Development; SSAN=such sums as necessary. The mandatory funding is subject to sequestration, which is unspecified in the table.

a. Both §9003 and §9010 were subject to changes in mandatory spending (CHIMPS) of \$20 million. §9003 was limited to \$151 million in carryover funding. §9010 was limited to \$3 million. For more information, see Table 15 in CRS Report R44588, *Agriculture and Related Agencies: FY2017 Appropriations*.