



Farm Bill Primer: Energy Title

Omnibus farm bills have been enacted periodically to address agricultural and food programs. The most recent farm bill—the Agriculture Improvement Act of 2018 (2018 farm bill; P.L. 115-334)—contains 12 titles, including Title IX, Energy. It has been extended three times, most recently through FY2026 by P.L. 119-37, §5002. The 2018 farm bill is the fourth farm bill to contain an energy title. In preparation for another farm bill, Congress may examine funding and oversight of the energy title programs as well as (1) the effects of related requirements provided under non-agriculture legislation (e.g., the Renewable Fuel Standard [RFS]), (2) market activity for conventional energy (e.g., the price of oil), and (3) the opportunity to use biofuels in aircraft (e.g., sustainable aviation fuel) and in ships (e.g., sustainable maritime fuel).

This In Focus summarizes the 2018 farm bill energy title, energy title funding for the last four farm bills, legislative support for agriculture-related energy, and legislative issues as background and context for upcoming discussions about authorizing another farm bill. This In Focus reviews all sections of 7 U.S.C. Ch. 107, Renewable Energy Research and Development, as well as sections enacted under other titles of the 2018 farm bill.

2018 Farm Bill Energy Title

The 2018 farm bill energy title primarily focused on support for renewable energy—particularly agriculture-related energy—as well as energy efficiency and bioproducts (e.g., bio-based cleaning supplies). The 2018 farm bill authorized 12 energy programs and initiatives. This total included reauthorization of 11 activities and establishment of one new program—the Carbon Utilization and Biogas Education Program. The law repealed one program and one initiative—the Repowering Assistance Program and the Rural Energy Self-Sufficiency Initiative, respectively. The 12 authorized programs and initiatives are

- 7 U.S.C. §8102: Biobased Markets Program;
- 7 U.S.C. §8103: Biorefinery, Renewable Chemical, and Biobased Product Manufacturing Assistance (Program);
- 7 U.S.C. §8105: Bioenergy Program for Advanced Biofuels;
- 7 U.S.C. §8106: Biodiesel Fuel Education Program;
- 7 U.S.C. §8107: Rural Energy for America Program (REAP);
- 7 U.S.C. §8107a: Rural Energy Savings Program;
- 7 U.S.C. §8108: Biomass Research and Development (Initiative);
- 7 U.S.C. §8110: Feedstock Flexibility Program for Bioenergy Producers;
- 7 U.S.C. §8111: Biomass Crop Assistance Program;

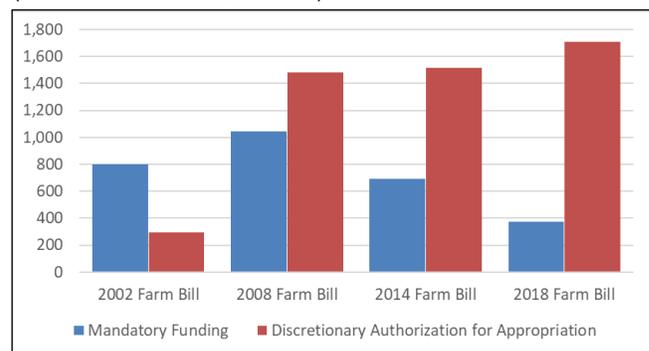
- 7 U.S.C. §8113: Community Wood Energy and Wood Innovation Program;
- 7 U.S.C. §8114: Sun Grant Program; and
- 7 U.S.C. §8115: Carbon Utilization and Biogas Education Program.

Of the 11 reauthorized activities, seven programs and one initiative were amended under the 2018 farm bill (§8102, §8103, §8105, §8107, §8107a, §8108, §8111, and §8113), and three programs generally were unchanged (§8106, §8110, and §8114). For more discussion of the energy title programs, see CRS In Focus IF10288, *Overview of the 2018 Farm Bill Energy Title Programs*, by Kelsi Bracmort.

Energy Title Funding

Like previous bills, the 2018 farm bill addresses funding for Title IX programs. The five-year FY2019-FY2023 total mandatory funding and the total discretionary funding authorized to be appropriated are \$375 million and \$1.7 billion, respectively (see **Figure 1**). The mandatory funding for the energy title comprises approximately 0.1% of the Congressional Budget Office’s 2018 farm bill total mandatory program estimate of \$428 billion over the same five-year period.

Figure 1. Energy Title Funding in 2002-2018 Farm Bills
(in millions of dollars, nominal)



Sources: P.L. 107-171, P.L. 110-246, P.L. 113-79, P.L. 115-334.

Notes: Mandatory funding for the 2002 farm bill covered a six-year period, whereas the other farm bills covered a five-year period.

Mandatory funding for the energy title has varied in each bill—with the largest amount, approximately \$1 billion (nominal) over five years, provided in the 2008 farm bill (P.L. 110-246). Nominal mandatory funding has declined in each farm bill since. Under the 2018 farm bill, five programs received mandatory funding, fewer than before. The §8103 and §8107 programs combined constitute close to 87% of the total mandatory funding in Title IX.

Nominal discretionary authorizations for appropriations increased over the last three farm bills. Under the 2018 farm bill, discretionary funding is authorized for all but one

of the energy title programs—the §8110 program. For most of the programs receiving both mandatory and discretionary funding, the discretionary authorization is almost equivalent to or exceeds the mandatory funding amount. However, total discretionary appropriations after the 2018 farm bill have been lower than the amounts authorized to be appropriated. Four programs have received discretionary funding under the 2018 farm bill: §8107, §8107a, §8113, and §8114.

Agriculture-Related Energy

Agriculture-related energy is defined, for the purposes herein, as energy derived from agricultural or forestry feedstocks (e.g., crops, woody biomass, food waste, manure). Agriculture-related energy, or *bioenergy*, may be in the form of liquid transportation fuels, electric power, or heat. The most prevalent form is ethanol—a liquid fuel commonly blended with gasoline for use in motor vehicles.

There are opportunities and challenges associated with bioenergy production. Bioenergy often is viewed as renewable and as having fewer detrimental environmental effects than many conventional energy sources. However, disagreement exists about the environmental effects of certain types of bioenergy (e.g., greenhouse gas emission impacts of cornstarch ethanol, land-use changes, water quality impacts). Some view bioenergy as having the potential to stimulate economic development in rural areas. However, there can be limitations—primarily infrastructure and economic—to the production, distribution, and consumption of bioenergy.

Legislative Support for Agriculture-Related Energy

Congress has supported agriculture-related energy for more than 40 years through energy, agriculture, and tax laws. One of Congress's initial measures to support agriculture-related energy was the Energy Security Act of 1980 (P.L. 96-294). This act established a biomass energy program, including an Office of Alcohol Fuels within the Department of Energy, a municipal waste biomass energy program, and several initiatives for forestry energy. Congress created an energy title in the 2002 farm bill (P.L. 107-171), which assisted farmers with purchasing renewable energy systems and increasing energy efficiency. This agricultural legislation was followed by the Energy Policy Act of 2005 (P.L. 109-58), which established the RFS that mandates U.S. transportation fuel contain a minimum volume of biofuel, and by the Energy Independence and Security Act of 2007 (P.L. 110-140), which expanded the mandate. Congress subsequently passed the 2008 farm bill (P.L. 110-246), which renewed authorization for and expanded renewable energy programs established in the 2002 farm bill, and the 2014 farm bill (P.L. 113-79), which extended most of the renewable energy provisions of the 2008 farm bill. Congress then passed the 2018 farm bill, which extended most of the 2014 renewable energy provisions.

Congress established tax incentives for biofuels, including the Volumetric Ethanol Excise Tax Credit (which expired in 2011) and the Biodiesel Tax Credit (which expired in 2024) in the American Jobs Creation Act of 2004 (P.L. 108-357). P.L. 117-169, commonly known as the Inflation Reduction Act of 2022 (IRA), extended certain tax

incentives for biofuels, including biodiesel and renewable diesel, through the end of 2024. The law also established a sustainable aviation fuel tax credit that would, after 2024, have been absorbed into a new clean fuel production credit (CFPC), available through 2027. The 2025 reconciliation act (P.L. 119-21) modified the CFPC in significant ways and extended it through 2029. The act also reinstated the small agri-biodiesel producer credit through the end of 2026, doubled its value from 10 cents to 20 cents per gallon, and allowed fuel producers to claim both that credit and the CFPC for the same fuel.

Legislative Issues

As Congress prepares for another farm bill, it may assess agriculture-related energy in at least three domains—agriculture, the environment, and economic development. Potential issues for Congress include (1) the amount of discretionary and mandatory funding provided for 2018 farm bill energy title programs, (2) the impact of the IRA's financial support on energy title programs, and (3) the impact of energy title programs on other legislative efforts (e.g., the RFS, fuel tax incentives).

Congress may consider a few points specific to the energy title programs when addressing the aforementioned issues. First, with the exception of REAP, many of the energy title programs lack a budget baseline—a projection at a particular point in time of what future federal spending on mandatory programs would be under current law. Thus, a reauthorization of some of the energy title programs in the 2018 farm bill could be scored as new mandatory spending and may require budgetary offsets to pay for it.

Second, in the past, authorizations have exceeded discretionary appropriations for the energy title programs. Going forward, some may assert that Congress does not need to provide discretionary funding because some of the energy title programs receive mandatory funding. Others may contend that the programs cannot be fully effective if Congress does not appropriate the discretionary funding.

Third, the relationship between other policy mechanisms (e.g., consumption mandates, tax incentives) and the energy title programs remains an issue. To date, the discussion about agriculture-related energy has mostly focused on liquid transportation fuels (e.g., ethanol) for vehicles. Tax policy and energy policy have maintained this focus with the RFS and certain credits. In addition, some in Congress advocate to expand the use of higher blends of ethanol, such as E15. Congress may debate whether to direct support to other types of agriculture-related energy.

Lastly, supplies of oil and natural gas, along with both energy and agricultural commodity prices, are a consideration when discussing the energy title programs. The energy title programs were established and expanded partly in response to high energy prices and concerns about energy independence. Given current economic conditions and the priorities of the Trump Administration, it is not clear what the interplay will be between agriculture-related energy prices and oil and natural gas prices.

Kelsi Bracmort, Specialist in Natural Resources and Energy Policy

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