

(A) may bear interest, not to exceed 5 percent, to be used for purposes that include—

- (i) to establish a loan loss reserve; and
- (ii) to offset personnel and program costs of eligible entities to provide the loans;

(B) shall finance energy efficiency measures for the purpose of decreasing energy usage or costs of the qualified consumer by an amount that ensures, to the maximum extent practicable, that a loan term of not more than 10 years will not pose an undue financial burden on the qualified consumer, as determined by the eligible entity;

(C) shall not be used to fund purchases of, or modifications to, personal property unless the personal property is or becomes attached to real property (including a manufactured home) as a fixture;

(D) shall be repaid through charges added to the recurring service bill for the property for, or at which, energy efficiency measures are or will be implemented, on the condition that this requirement does not prohibit—

- (i) the voluntary prepayment of a loan by the owner of the property; or
- (ii) the use of any additional repayment mechanisms that are—

(I) demonstrated to have appropriate risk mitigation features, as determined by the eligible entity; or

(II) required if the qualified consumer is no longer a customer of the eligible entity; and

(E) shall require an energy audit by an eligible entity to determine the impact of proposed energy efficiency measures on the energy costs and consumption of the qualified consumer.

## (2) Contractors

In addition to any other qualified general contractor, eligible entities may serve as general contractors.

## (e) Contract for measurement and verification, training, and technical assistance

### (1) In general

Not later than 90 days after February 7, 2014, the Secretary—

(A) shall establish a plan for measurement and verification, training, and technical assistance of the program; and

(B) may enter into 1 or more contracts with a qualified entity for the purposes of—

- (i) providing measurement and verification activities; and
- (ii) developing a program to provide technical assistance and training to the employees of eligible entities to carry out this section.

### (2) Use of subcontractors authorized

A qualified entity that enters into a contract under paragraph (1) may use subcontractors to assist the qualified entity in carrying out the contract.

## (f) Additional authority

The authority provided in this section is in addition to any other authority of the Secretary to offer loans under any other law.

## (g) Effective period

Subject to the availability of funds and except as otherwise provided in this section, the loans and other expenditures required to be made under this section shall be available until expended, with the Secretary authorized to make new loans as loans are repaid.

## (h) Publication

Not later than 120 days after the end of each fiscal year, the Secretary shall publish a description of—

- (1) the number of applications received under this section for that fiscal year;
- (2) the number of loans made to eligible entities under this section for that fiscal year; and
- (3) the recipients of the loans described in paragraph (2).

## (i) Authorization of appropriations

There is authorized to be appropriated to carry out this section \$75,000,000 for each of fiscal years 2014 through 2023.

(Pub. L. 107-171, title VI, § 6407, as added Pub. L. 113-79, title VI, § 6205, Feb. 7, 2014, 128 Stat. 857; amended Pub. L. 115-334, title VI, § 6303, Dec. 20, 2018, 132 Stat. 4749.)

## REFERENCES IN TEXT

The Rural Electrification Act of 1936, referred to in subsec. (c)(4), is act May 20, 1936, ch. 432, 49 Stat. 1363, which is classified generally to chapter 31 (§901 et seq.) of this title. For complete classification of this Act to the Code, see section 901 of this title and Tables.

## CODIFICATION

Section was not enacted as part of title IX of Pub. L. 107-171, which comprises this chapter.

## AMENDMENTS

2018—Subsec. (b)(2). Pub. L. 115-334, § 6303(1), substituted “efficiency (including cost-effective on- or off-grid renewable energy or energy storage systems).” for “efficiency.”

Subsec. (c)(4). Pub. L. 115-334, § 6303(2)(B), added par. (4). Former par. (4) redesignated (5).

Subsec. (c)(5). Pub. L. 115-334, § 6303(2)(A), redesignated par. (4) as (5). Former par. (5) redesignated (6).

Subsec. (c)(5)(B). Pub. L. 115-334, § 6303(2)(C), substituted “(7)” for “(6)”.

Subsec. (c)(6) to (8). Pub. L. 115-334, § 6303(2)(A), redesignated pars. (5) to (7) as (6) to (8), respectively.

Subsec. (c)(9). Pub. L. 115-334, § 6303(2)(D), added par. (9).

Subsec. (d)(1)(A). Pub. L. 115-334, § 6303(3)(A), substituted “5 percent” for “3 percent” in introductory provisions.

Subsec. (d)(1)(D). Pub. L. 115-334, § 6303(3)(B), substituted “recurring service” for “electric” in introductory provisions.

Subsec. (h). Pub. L. 115-334, § 6303(5), added subsec. (h). Former subsec. (h) redesignated (i).

Subsec. (i). Pub. L. 115-334, § 6303(4), (6), redesignated subsec. (h) as (i) and substituted “2023” for “2018”.

## § 8108. Biomass research and development

### (a) Definitions

In this section:

#### (1) Biobased product

The term “biobased product” means—

- (A) an industrial product (including chemicals, materials, and polymers) produced from biomass;

(B) a commercial or industrial product (including animal feed and electric power) derived in connection with the conversion of biomass to fuel; or

(C) carbon dioxide that—

(i) is intended for permanent sequestration or utilization; and

(ii) is a byproduct of the production of the products described in subparagraphs (A) and (B).

**(2) Demonstration**

The term “demonstration” means demonstration of technology in a pilot plant or semi-works scale facility, including a plant or facility located on a farm.

**(3) Initiative**

The term “Initiative” means the Biomass Research and Development Initiative established under subsection (e).

**(b) Cooperation and coordination in biomass research and development**

**(1) In general**

The Secretary of Agriculture and the Secretary of Energy shall coordinate policies and procedures that promote research and development regarding the production of biofuels and biobased products.

**(2) Points of contact**

To coordinate research and development programs and activities relating to biofuels and biobased products that are carried out by their respective departments—

(A) the Secretary of Agriculture shall designate, as the point of contact for the Department of Agriculture, an officer of the Department of Agriculture appointed by the President to a position in the Department before the date of the designation, by and with the advice and consent of the Senate; and

(B) the Secretary of Energy shall designate, as the point of contact for the Department of Energy, an officer of the Department of Energy appointed by the President to a position in the Department before the date of the designation, by and with the advice and consent of the Senate.

**(c) Biomass Research and Development Board**

**(1) Establishment**

There is established the Biomass Research and Development Board to carry out the duties described in paragraph (3).

**(2) Membership**

The Board shall consist of—

(A) the point of contacts of the Department of Energy and the Department of Agriculture, who shall serve as cochairpersons of the Board;

(B) a senior officer of each of the Department of the Interior, the Environmental Protection Agency, the National Science Foundation, and the Office of Science and Technology Policy, each of whom shall have a rank that is equivalent to the rank of the points of contact; and

(C) at the option of the Secretary of Agriculture and the Secretary of Energy, other

members appointed by the Secretaries (after consultation with the Board).

**(3) Duties**

The Board shall—

(A) coordinate research and development activities relating to biofuels and biobased products—

(i) between the Department of Agriculture and the Department of Energy; and

(ii) with other departments and agencies of the Federal Government;

(B) provide recommendations to the points of contact concerning administration of this chapter;

(C) ensure that—

(i) solicitations are open and competitive with awards made annually; and

(ii) objectives and evaluation criteria of the solicitations are clearly stated and minimally prescriptive, with no areas of special interest; and

(D) ensure that the panel of scientific and technical peers assembled under subsection (e) to review proposals is composed predominantly of independent experts selected from outside the Departments of Agriculture and Energy.

**(4) Funding**

Each agency represented on the Board is encouraged to provide funds for any purpose under this section.

**(5) Meetings**

The Board shall meet at least quarterly.

**(d) Biomass Research and Development Technical Advisory Committee**

**(1) Establishment**

There is established the Biomass Research and Development Technical Advisory Committee to carry out the duties described in paragraph (3).

**(2) Membership**

**(A) In general**

The Advisory Committee shall consist of—

(i) an individual affiliated with the biofuels industry;

(ii) an individual affiliated with the biobased industrial and commercial products industry;

(iii) an individual affiliated with an institution of higher education who has expertise in biofuels and biobased products;

(iv) 2 prominent engineers or scientists from government or academia who have expertise in biofuels and biobased products;

(v) an individual affiliated with a commodity trade association;

(vi) 2 individuals affiliated with environmental or conservation organizations;

(vii) an individual associated with State government who has expertise in biofuels and biobased products;

(viii) an individual with expertise in energy and environmental analysis;

(ix) an individual with expertise in the economics of biofuels and biobased products;

(x) an individual with expertise in agricultural economics;

(xi) an individual with expertise in plant biology and biomass feedstock development;

(xii) an individual with expertise in agronomy, crop science, or soil science;

(xiii) an individual with expertise in carbon dioxide capture, utilization, and sequestration; and

(xiv) at the option of the points of contact, other members.

#### **(B) Appointment**

The members of the Advisory Committee shall be appointed by the points of contact.

#### **(3) Duties**

The Advisory Committee shall—

(A) advise the points of contact with respect to the Initiative; and

(B) evaluate and make recommendations in writing to the Board regarding whether—

(i) funds authorized for the Initiative are distributed and used in a manner that is consistent with the objectives, purposes, and considerations of the Initiative;

(ii) solicitations are open and competitive with awards made annually;

(iii) objectives and evaluation criteria of the solicitations are clearly stated and minimally prescriptive, with no areas of special interest;

(iv) the points of contact are funding proposals under this chapter that are selected on the basis of merit, as determined by an independent panel of scientific and technical peers predominantly from outside the Departments of Agriculture and Energy; and

(v) activities under this chapter are carried out in accordance with this chapter.

#### **(4) Coordination**

To avoid duplication of effort, the Advisory Committee shall coordinate its activities with those of other Federal advisory committees working in related areas.

#### **(5) Meetings**

The Advisory Committee shall meet at least quarterly.

#### **(6) Terms**

Members of the Advisory Committee shall be appointed for a term of 3 years.

### **(e) Biomass Research and Development Initiative**

#### **(1) In general**

The Secretary of Agriculture and the Secretary of Energy, acting through their respective points of contact and in consultation with the Board, shall establish and carry out a Biomass Research and Development Initiative under which competitively awarded grants, contracts, and financial assistance are provided to, or entered into with, eligible entities to carry out research on and development and demonstration of—

(A) biofuels and biobased products; and

(B) the methods, practices, and technologies, for the production of biofuels and biobased products.

#### **(2) Objectives**

The objectives of the Initiative are to develop—

(A) technologies and processes necessary for abundant commercial production of biofuels at prices competitive with fossil fuels;

(B) high-value biobased products—

(i) to enhance the economic viability of biofuels and power;

(ii) to serve as substitutes for petroleum-based feedstocks and products;

(iii) to enhance the value of coproducts produced using the technologies and processes; and

(iv) to permanently sequester or utilize carbon dioxide described in subsection (a)(1)(C); and

(C) a diversity of economically and environmentally sustainable domestic sources of renewable biomass for conversion to biofuels, bioenergy, and biobased products.

#### **(3) Technical areas**

The Secretary of Agriculture and the Secretary of Energy, in consultation with the Administrator of the Environmental Protection Agency and heads of other appropriate departments and agencies (referred to in this subsection as the “Secretaries”), shall direct the Initiative in the 3 following areas:

##### **(A) Feedstocks development**

Research, development, and demonstration activities regarding feedstocks and feedstock logistics (including the harvest, handling, transport, preprocessing, and storage) relevant to production of raw materials for conversion to biofuels and biobased products.

##### **(B) Biofuels and biobased products development**

Research, development, and demonstration activities to support—

(i) the development of diverse cost-effective technologies for the use of cellulosic biomass in the production of biofuels and biobased products;

(ii) product diversification through technologies relevant to production of a range of biobased products (including chemicals, animal feeds, and cogenerated power) that potentially can increase the feasibility of fuel production in a biorefinery; and

(iii) the development of technologies to permanently sequester or utilize carbon dioxide described in subsection (a)(1)(C).

##### **(C) Biofuels development analysis**

###### **(i) Strategic guidance**

The development of analysis that provides strategic guidance for the application of renewable biomass technologies to improve sustainability and environmental quality, cost effectiveness, security, and rural economic development.

###### **(ii) Energy and environmental impact**

Development of systematic evaluations of the impact of expanded biofuel production on the environment (including forest

land) and on the food supply for humans and animals, including the improvement and development of tools for life cycle analysis of current and potential biofuels.

**(iii) Assessment of Federal land**

Assessments of the potential of Federal land resources to increase the production of feedstocks for biofuels and biobased products, consistent with the integrity of soil and water resources and with other environmental considerations.

**(4) Additional considerations**

Within the technical areas described in paragraph (3), the Secretaries shall support research and development—

(A) to create continuously expanding opportunities for participants in existing biofuels production by seeking synergies and continuity with current technologies and practices;

(B) to maximize the environmental, economic, and social benefits of production of biofuels and derived biobased products on a large scale; and

(C) to facilitate small-scale production and local and on-farm use of biofuels, including the development of small-scale gasification technologies for production of biofuel from cellulosic feedstocks.

**(5) Eligibility**

To be eligible for a grant, contract, or assistance under this section, an applicant shall be—

- (A) an institution of higher education;
- (B) a National Laboratory;
- (C) a Federal research agency;
- (D) a State research agency;
- (E) a private sector entity;
- (F) a nonprofit organization; or
- (G) a consortium of 2 or more entities described in subparagraphs (A) through (F).

**(6) Administration**

**(A) In general**

After consultation with the Board, the points of contact shall—

(i) publish annually 1 or more joint requests for proposals for grants, contracts, and assistance under this subsection;

(ii) require that grants, contracts, and assistance under this section be awarded based on a scientific peer review by an independent panel of scientific and technical peers;

(iii) give special consideration to applications that—

(I) involve a consortia of experts from multiple institutions;

(II) encourage the integration of disciplines and application of the best technical resources; and

(III) increase the geographic diversity of demonstration projects; and

(iv) require that the technical areas described in each of subparagraphs (A), (B), and (C) of paragraph (3) receive not less than 15 percent of funds made available to carry out this section.

**(B) Cost share**

**(i) Research and development projects**

**(I) In general**

Except as provided in subclause (II), the non-Federal share of the cost of a research or development project under this section shall be not less than 20 percent.

**(II) Reduction**

The Secretary of Agriculture or the Secretary of Energy, as appropriate, may reduce the non-Federal share required under subclause (I) if the appropriate Secretary determines the reduction to be necessary and appropriate.

**(ii) Demonstration and commercial projects**

The non-Federal share of the cost of a demonstration or commercial project under this section shall be not less than 50 percent.

**(C) Technology and information transfer**

The Secretary of Agriculture and the Secretary of Energy shall ensure that applicable research results and technologies from the Initiative are—

(i) adapted, made available, and disseminated, as appropriate; and

(ii) included in the best practices database established under section 5925e(e)<sup>1</sup> of this title.

**(f) Administrative support and funds**

**(1) In general**

The Secretary of Energy and the Secretary of Agriculture may provide such administrative support and funds of the Department of Energy and the Department of Agriculture to the Board and the Advisory Committee as are necessary to enable the Board and the Advisory Committee to carry out their duties under this section.

**(2) Other agencies**

The heads of the agencies referred to in subsection (c)(2)(B), and the other members of the Board appointed under subsection (c)(2)(C), are encouraged to provide administrative support and funds of their respective agencies to the Board and the Advisory Committee.

**(3) Limitation**

Not more than 4 percent of the amount made available for each fiscal year under subsection (h) may be used to pay the administrative costs of carrying out this section.

**(g) Reports**

For each fiscal year for which funds are made available to carry out this section, the Secretary of Energy and the Secretary of Agriculture shall jointly submit to Congress a detailed report on—

(1) the status and progress of the Initiative, including a report from the Advisory Committee on whether funds appropriated for the Initiative have been distributed and used in a manner that is consistent with the objectives and requirements of this section;

<sup>1</sup> See References in Text note below.

(2) the general status of cooperation and research and development efforts carried out at each agency with respect to biofuels and biobased products; and

(3) the plans of the Secretary of Energy and the Secretary of Agriculture for addressing concerns raised in the report, including concerns raised by the Advisory Committee.

#### (h) Funding

##### (1) Mandatory funding

Of the funds of the Commodity Credit Corporation, the Secretary of Agriculture shall use to carry out this section, to remain available until expended—

- (A) \$20,000,000 for fiscal year 2009;
- (B) \$28,000,000 for fiscal year 2010;
- (C) \$30,000,000 for fiscal year 2011;
- (D) \$40,000,000 for fiscal year 2012; and
- (E) \$3,000,000 for each of fiscal years 2014 through 2017.

##### (2) Discretionary funding

In addition to any other funds made available to carry out this section, there is authorized to be appropriated to carry out this section \$20,000,000 for each of fiscal years 2014 through 2023.

(Pub. L. 107-171, title IX, §9008, as added Pub. L. 110-234, title IX, §9001(a), May 22, 2008, 122 Stat. 1318, and Pub. L. 110-246, §4(a), title IX, §9001(a), June 18, 2008, 122 Stat. 1664, 2079; amended Pub. L. 112-240, title VII, §701(f)(7), Jan. 2, 2013, 126 Stat. 2365; Pub. L. 113-79, title IX, §9008, Feb. 7, 2014, 128 Stat. 931; Pub. L. 115-334, title VII, §7507, Dec. 20, 2018, 132 Stat. 4823.)

#### REFERENCES IN TEXT

Section 5925e of this title, referred to in subsec. (e)(6)(C)(ii), was repealed by Pub. L. 113-79, title VII, §7212(a), Feb. 7, 2014, 128 Stat. 886.

#### CODIFICATION

Pub. L. 110-234 and Pub. L. 110-246 enacted identical sections. Pub. L. 110-234 was repealed by section 4(a) of Pub. L. 110-246.

#### PRIOR PROVISIONS

A prior section 8108, Pub. L. 107-171, title IX, §9010, May 13, 2002, 116 Stat. 485, related to continuation of bioenergy program, prior to the general amendment of this chapter by Pub. L. 110-246. See section 8105 of this title.

A prior section 9008 of Pub. L. 107-171 amended title III of Pub. L. 106-224, which was classified to chapter 112 (§8601 et seq.) of this title prior to repeal by Pub. L. 110-246, §9001(b).

#### AMENDMENTS

2018—Subsec. (a)(1)(C). Pub. L. 115-334, §7507(1), added subpar. (C).

Subsec. (d)(2)(A)(xiii), (xiv). Pub. L. 115-334, §7507(2), added cl. (xiii) and redesignated former cl. (xiii) as (xiv).

Subsec. (e)(2)(B)(iv). Pub. L. 115-334, §7507(3)(A), added cl. (iv).

Subsec. (e)(3)(B)(iii). Pub. L. 115-334, §7507(3)(B), added cl. (iii).

Subsec. (h)(2). Pub. L. 115-334, §7507(4), substituted “2023” for “2018”.

2014—Subsec. (h)(1)(E). Pub. L. 113-79, §9008(1), added subpar. (E).

Subsec. (h)(2). Pub. L. 113-79, §9008(2), substituted “\$20,000,000 for each of fiscal years 2014 through 2018”

for “\$35,000,000 for each of fiscal years 2009 through 2013”.

2013—Subsec. (h)(2). Pub. L. 112-240 substituted “2013” for “2012”.

#### EFFECTIVE DATE OF 2013 AMENDMENT

Amendment by Pub. L. 112-240 effective Sept. 30, 2012, see section 701(j) of Pub. L. 112-240, set out in a 1-Year Extension of Agricultural Programs note under section 8701 of this title.

#### EFFECTIVE DATE

Enactment of this section and repeal of Pub. L. 110-234 by Pub. L. 110-246 effective May 22, 2008, the date of enactment of Pub. L. 110-234, see section 4 of Pub. L. 110-246, set out as a note under section 8701 of this title.

#### § 8109. Repealed. Pub. L. 115-334, title IX, §9008, Dec. 20, 2018, 132 Stat. 4886

Section, Pub. L. 107-171, title IX, §9009, as added Pub. L. 110-234, title IX, §9001(a), May 22, 2008, 122 Stat. 1324, and Pub. L. 110-246, §4(a), title IX, §9001(a), June 18, 2008, 122 Stat. 1664, 2085; amended Pub. L. 112-240, title VII, §701(f)(8), Jan. 2, 2013, 126 Stat. 2365, established the Rural Energy Self-Sufficiency Initiative.

A prior section 8109, Pub. L. 107-171, title IX, §9011, as added Pub. L. 108-199, div. A, title VII, §778(b), Jan. 23, 2004, 118 Stat. 41, related to research, extension, and educational programs on biobased energy technologies and products, prior to the general amendment of this chapter by Pub. L. 110-246. See section 8114 of this title.

#### § 8110. Feedstock flexibility program for bioenergy producers

##### (a) Definitions

In this section:

##### (1) Bioenergy

The term “bioenergy” means fuel grade ethanol and other biofuel.

##### (2) Bioenergy producer

The term “bioenergy producer” means a producer of bioenergy that uses an eligible commodity to produce bioenergy under this section.

##### (3) Eligible commodity

The term “eligible commodity” means a form of raw or refined sugar or in-process sugar that is eligible to be marketed in the United States for human consumption or to be used for the extraction of sugar for human consumption.

##### (4) Eligible entity

The term “eligible entity” means an entity located in the United States that markets an eligible commodity in the United States.

##### (b) Feedstock flexibility program

##### (1) In general

##### (A) Purchases and sales

For each of the 2008 through 2023 crops, the Secretary shall purchase eligible commodities from eligible entities and sell such commodities to bioenergy producers for the purpose of producing bioenergy in a manner that ensures that section 7272 of this title is operated at no cost to the Federal Government by avoiding forfeitures to the Commodity Credit Corporation.

##### (B) Competitive procedures

In carrying out the purchases and sales required under subparagraph (A), the Sec-