



Farm Bill Legislative Side-By-Side

BIOREFINERY, RENEWABLE CHEMICAL, AND BIOBASED PRODUCT MANUFACTURING ASSISTANCE PROGRAM

Program Description

The USDA Rural Development's [Biorefinery, Renewable Chemical, and Biobased Product Manufacturing Assistance Program](#) provides loan guarantees of up to \$250 million to develop advanced biofuels, renewable chemicals, and bio-based product manufacturing facilities to deliver new and innovative technologies.

Climate Highlights

Advanced biofuels, renewable chemicals, and bio-based products are created from renewable materials that [reduce](#) the need for fossil fuels. A 2020 [report](#) from USDA found that the U.S. bio-based products industry added \$470 billion to the economy and supported 4.6 million jobs in 2017. The report also estimated that the U.S. bio-based industry displaces 9.4 million barrels of oil every year.

Funding

The 2018 Farm Bill ([P.L.115-334](#)) authorized annual discretionary funding of \$75 million for the program through fiscal year (FY) 2023. Mandatory funding for the program was established at \$50 million for FY 2019 and \$25 million for FY 2020. Congress did not provide appropriations for the program in FY 2023 or FY 2024.

Legislative Side-By-Side

The following Side-by-Side compares the House and Senate versions of the Farm Bill’s Biorefinery, Renewable Chemical, and Biobased Product Manufacturing Assistance Program with current law. Underlined text indicates suggested additions to current law. Struck text indicates suggested deletions to current law. “No change” indicates that the entire section was left unaltered.

Current Law 7 USC §8103 (October 2022)	House Version House Agriculture Committee amended text pages 722 – 727 (May 2024)	Senate Version
<p>(a) Purpose The purpose of this section is to assist in the development of new and emerging technologies for the development of advanced biofuels, renewable chemicals, and biobased product manufacturing so as to—</p> <ul style="list-style-type: none"> (1) increase the energy independence of the United States; (2) promote resource conservation, public health, and the environment; (3) diversify markets for agricultural and forestry products and agriculture waste material; and (4) create jobs and enhance the economic development of the rural economy. 	<p>No change</p>	<p>This resource will be updated as the Senate legislative Farm Bill text is released.</p>
<p>(b) Definitions In this section:</p> <p>(1) Biobased product manufacturing The term "biobased product manufacturing" means development, construction, and retrofitting of technologically new commercial-scale processing and manufacturing equipment and required facilities that will be used to convert renewable chemicals and other biobased outputs of biorefineries into end-user products on a commercial scale.</p> <p>(2) Eligible entity The term "eligible entity" means an individual, entity, Indian tribe, or unit of State or local government, including a corporation, farm cooperative, farmer cooperative organization, association of agricultural producers, National Laboratory, institution of higher education, rural electric cooperative, public power entity, or consortium of any of those entities.</p> <p>(3) Eligible technology The term "eligible technology" means, as determined by the Secretary—</p>	<p>(b) Definitions In this section:</p> <p>(1) Biobased product manufacturing The term "biobased product manufacturing" means development, construction, and retrofitting of technologically new <u>or innovative</u> commercial-scale processing and manufacturing equipment and required facilities that will be used to convert renewable chemicals and other biobased outputs of biorefineries into end-user products, <u>renewable chemicals, or biobased products</u> on a commercial scale.</p> <p>(2) Eligible entity The term "eligible entity" means an individual, entity, Indian tribe, or unit of State or local government, including a corporation, farm cooperative, farmer cooperative organization, association of agricultural producers, National Laboratory, institution of higher education, rural electric cooperative, public power entity, or consortium of any of those entities.</p> <p>(3) Eligible technology The term "eligible technology" means, as determined by the Secretary—</p>	

<p>(A) a technology that is being adopted in a viable commercial-scale operation of a biorefinery that produces any 1 or more, or a combination, of—</p> <ul style="list-style-type: none"> (i) an advanced biofuel; (ii) a renewable chemical; or (iii) a biobased product; and <p>(B) a technology not described in subparagraph (A) that has been demonstrated to have technical and economic potential for commercial application in a biorefinery that produces any 1 or more, or a combination, of—</p> <ul style="list-style-type: none"> (i) an advanced biofuel; (ii) a renewable chemical; or (iii) a biobased product. 	<p>(A) a technology that is being adopted in a viable commercial-scale operation of a biorefinery that produces any 1 or more, or a combination, of—</p> <ul style="list-style-type: none"> (i) an advanced biofuel; (ii) a renewable chemical; or (iii) a biobased product; and <p>(B) a technology not described in subparagraph (A) that has been demonstrated to have technical and economic potential for commercial application in a biorefinery that produces any 1 or more, or a combination, of—</p> <ul style="list-style-type: none"> (i) an advanced biofuel; (ii) a renewable chemical; or (iii) a biobased product. 	
<p>(c) Assistance The Secretary shall make available to eligible entities guarantees for loans made to fund the development, construction, and retrofitting of commercial-scale biorefineries using eligible technology.</p>	<p>No change</p>	
<p>(d) Loan guarantees (1) Selection criteria (A) In general In approving loan guarantee applications, the Secretary shall establish a priority scoring system that assigns priority scores to each application and only approve applications that exceed a specified minimum, as determined by the Secretary. (B) Feasibility In approving a loan guarantee application, the Secretary shall determine the technical and economic feasibility of the project based on a feasibility study of the project described in the application conducted by an independent third party.</p>	<p>(d) Loan guarantees (1) Selection criteria (A) In general In approving loan guarantee applications, the Secretary shall establish a priority scoring system that assigns priority scores to each application and only approve applications that exceed a specified minimum, as determined by the Secretary. (B) Feasibility In approving (B) Feasibility (i) In general <u>In approving</u> a loan guarantee application, the Secretary shall determine the technical and economic feasibility of the project based on a feasibility study of the project described in the application conducted by an independent third party. (ii) Waiver <u>The Secretary may waive the requirement that the applicant must demonstrate commercial viability for projects adopting commercially available technology.</u> (C) Technical review agreement (i) In general <u>The Secretary shall enter into an agreement with each project applicant that clearly outlines the specific</u></p>	

objectives, outcomes, and conditions by which the Secretary determines successful technical feasibility of the project under this section.

(ii) Conditions of agreement

The agreement provided under clause (i) shall include clear guidelines and expectations for the methodologies, protocols, and procedures, and what the eligible technology must demonstrate, for the Department to determine technical feasibility from an integrated demonstration unit, including—

(I) a set timeline for the integrated demonstration unit campaign and final technical report to show reliable evidence of continuous, steady-state production;

(II) criteria and methods for evaluating the project's success, including any third-party assessments or evaluations that may be conducted during the demonstration period and at the conclusion of the set timeline;

(III) criteria and methods to prove the ability of the integrated demonstration unit to use project-specific feedstock for the production of advanced biofuels, renewable chemicals, or biobased products at a yield and quality consistent with the design basis of the project;

(IV) required information and conditions that demonstrate operation duration, quality, and quantity specification; and

(V) any other information that, if supplied to the Secretary, would assist the eligible entity in sufficiently demonstrating a project's technical feasibility.

(iii) Failure to comply with agreement

(I) Noncompliance notification

If a project applicant fails to comply with the technical feasibility requirements as provided under clause (ii), the Secretary shall issue a written notice to the project applicant detailing the specific deficiencies and providing a reasonable timeframe for the project applicant to rectify the issues.

(II) Corrective action period

The project applicant shall have a period of not more than 90 days from the date of issuance of the noncompliance notice to address the identified deficiencies and submit a revised technical feasibility assessment for reconsideration.

(iv) Technical feasibility approval

(C) Scoring system

In determining the priority scoring system for loan guarantees under subsection (c), the Secretary shall consider—

- (i) whether the applicant has established a market for the advanced biofuel and the byproducts produced;
- (ii) whether the area in which the applicant proposes to place the biorefinery has other similar facilities;
- (iii) whether the applicant is proposing to use a feedstock not previously used in the production of advanced biofuels;
- (iv) whether the applicant is proposing to work with producer associations or cooperatives;
- (v) the level of financial participation by the applicant, including support from non-Federal and private sources;
- (vi) whether the applicant has established that the adoption of the process proposed in the application will have a positive impact on resource conservation, public health, and the environment;
- (vii) whether the applicant can establish that if adopted, the biofuels production technology proposed in the application will not have any significant negative impacts on existing manufacturing plants or other facilities that use similar feedstocks;
- (viii) the potential for rural economic development;
- (ix) the level of local ownership proposed in the application; and
- (x) whether the project can be replicated.

(D) Project diversity

In approving loan guarantee applications, the Secretary shall ensure that, to the extent practicable, there is diversity in the types of projects approved for loan guarantees to ensure that as wide a range as possible of technologies, products, and approaches are assisted.

(2) Limitations

(A) Maximum amount of loan guaranteed

The principal amount of a loan guaranteed under subsection (c) may not exceed \$250,000,000.

(B) Maximum percentage of loan guaranteed

(i) In general

Except as otherwise provided in this subparagraph, a loan guaranteed under subsection (c) shall be in an amount not to exceed 80 percent of the project costs, as determined by the Secretary.

Upon fulfillment of the conditions of agreement established under clause (ii) or approval of the revised technical feasibility assessment under clause (iii)(II), the Secretary shall determine the project to be technically feasible.

~~(C)~~(D) Scoring system

In determining the priority scoring system for loan guarantees under subsection (c), the Secretary shall consider—

- (i) whether the applicant has established a market for the advanced biofuel and the byproducts produced;
- (ii) whether the area in which the applicant proposes to place the biorefinery has other similar facilities;
- (iii) whether the applicant is proposing to use a feedstock not previously used in the production of advanced biofuels;
- (iv) whether the applicant is proposing to work with producer associations or cooperatives;
- (v) the level of financial participation by the applicant, including support from non-Federal and private sources;
- (vi) whether the applicant has established that the adoption of the process proposed in the application will have a positive impact on resource conservation, public health, and the environment;
- (vii) whether the applicant can establish that if adopted, the biofuels production technology proposed in the application will not have any significant negative impacts on existing manufacturing plants or other facilities that use similar feedstocks;
- (viii) the potential for rural economic development;
- (ix) the level of local ownership proposed in the application; and
- (x) whether the project can be replicated.

~~(D)~~(E) Project diversity

In approving loan guarantee applications, the Secretary shall ensure that, to the extent practicable, there is diversity in the types of projects approved for loan guarantees to ensure that as wide a range as possible of technologies, products, and approaches are assisted.

(2) Limitations

(A) Maximum amount of loan guaranteed

The principal amount of a loan guaranteed under subsection (c) may not exceed \$250,000,000.

(B) Maximum percentage of loan guaranteed

(i) In general

Except as otherwise provided in this subparagraph, a loan guaranteed under subsection (c) shall be in an amount not to exceed 80 percent of the project costs, as determined by the Secretary.

<p>(ii) Other direct Federal funding The amount of a loan guaranteed for a project under subsection (c) shall be reduced by the amount of other direct Federal funding that the eligible entity receives for the same project.</p> <p>(iii) Authority to guarantee the loan The Secretary may guarantee up to 90 percent of the principal and interest due on a loan guaranteed under subsection (c).</p> <p>(C) Loan guarantee fund distribution Of the funds made available for loan guarantees for a fiscal year under subsection (g), 50 percent of the funds shall be reserved for obligation during the second half of the fiscal year.</p>	<p>(ii) Other direct Federal funding The amount of a loan guaranteed for a project under subsection (c) shall be reduced by the amount of other direct Federal funding that the eligible entity receives for the same project.</p> <p>(iii) Authority to guarantee the loan The Secretary may guarantee up to 90 percent of the principal and interest due on a loan guaranteed under subsection (c).</p> <p>(C) Loan guarantee fund distribution Of the funds made available for loan guarantees for a fiscal year under subsection (g), 50 percent of the funds shall be reserved for obligation during the second half of the fiscal year.</p>	
<p>(e) Consultation In carrying out this section, the Secretary shall consult with the Secretary of Energy.</p>	<p>No change</p>	
<p>(f) Condition on provision of assistance</p> <p>(1) In general As a condition of receiving a grant or loan guarantee under this section, an eligible entity shall ensure that all laborers and mechanics employed by contractors or subcontractors in the performance of construction work financed, in whole or in part, with the grant or loan guarantee, as the case may be, shall be paid wages at rates not less than those prevailing on similar construction in the locality, as determined by the Secretary of Labor in accordance with sections 3141 through 3144, 3146, and 3147 of title 40.</p> <p>(2) Authority and functions The Secretary of Labor shall have, with respect to the labor standards described in paragraph (1), the authority and functions set forth in Reorganization Plan Numbered 14 of 1950 (5 U.S.C. App) and section 3145 of title 40.</p>	<p>No change</p>	
<p>(g) Funding</p> <p>(1) Mandatory funding</p> <p>(A) In general Subject to subparagraph (B), of the funds of the Commodity Credit Corporation, the Secretary shall use for the cost of loan guarantees under this section, to remain available until expended—</p> <ul style="list-style-type: none"> (i) \$100,000,000 for fiscal year 2014; (ii) \$50,000,000 for each of fiscal years 2015 and 2016; 	<p>(g) Funding</p> <p>(1) Mandatory funding</p> <p>(A) In general Subject to subparagraph (B), of the funds of the Commodity Credit Corporation, the Secretary shall use for the cost of loan guarantees under this section, to remain available until expended—</p> <ul style="list-style-type: none"> (i) \$100,000,000 for fiscal year 2014; (ii) \$50,000,000 for each of fiscal years 2015 and 2016; 	

<p>(iii) \$50,000,000 for fiscal year 2019; and (iv) \$25,000,000 for fiscal year 2020.</p> <p>(B) Biobased product manufacturing Of the total amount of funds made available for fiscal years 2014 and 2015 under subparagraph (A), the Secretary may use for the cost of loan guarantees under this section not more than 15 percent of such funds to promote biobased product manufacturing.</p> <p>(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 \$75,000,000 for each of fiscal years 2014 through 2023.</p>	<p>(iii) \$50,000,000 for fiscal year 2019; and (iv) \$25,000,000 for fiscal year 2020.</p> <p>(B) Biobased product manufacturing Of the total amount of funds made available for fiscal years 2014 and 2015 under subparagraph (A), the Secretary may use for the cost of loan guarantees under this section not more than 15 percent of such funds to promote biobased product manufacturing.</p> <p>(2) Discretionary funding In addition to any other funds made available to carry out this section, there</p> <p>(g) Funding There is authorized to be appropriated to carry out this section \$75,000,000 for each of fiscal years 2014 through 2023-2029.</p>	
<p>(h) Additional funding for electric loans for renewable energy (1) Appropriations Notwithstanding subsections (a) through (e), and (g), in addition to amounts otherwise available, there is appropriated to the Secretary for fiscal year 2022, out of any money in the Treasury not otherwise appropriated, \$1,000,000,000, to remain available until September 30, 2031, for the cost of loans under section 940g of title 7, including for projects that store electricity that support the types of eligible projects under that section, which shall be forgiven in an amount that is not greater than 50 percent of the loan based on how the borrower and the project meets the terms and conditions for loan forgiveness consistent with the purposes of that section established by the Secretary, except as provided in paragraph (3).</p> <p>(2) Limitation The Secretary shall not enter into any loan agreement pursuant this subsection that could result in disbursements after September 30, 2031.</p> <p>(3) Exception The Secretary shall establish criteria for waiving the 50 percent limitation described in paragraph (1).</p>	<p>(h) Additional funding for electric loans for renewable energy (1) Appropriations Notwithstanding subsections (a) through (e), and (g), in addition to amounts otherwise available, there is appropriated to the Secretary for fiscal year 2022, out of any money in the Treasury not otherwise appropriated, \$1,000,000,000, to remain available until September 30, 2031-2029, for the cost of loans under section 940g of title 7, including for projects that store electricity that support the types of eligible projects under that section, which shall be forgiven in an amount that is not greater than 50 percent of the loan based on how the borrower and the project meets the terms and conditions for loan forgiveness consistent with the purposes of that section established by the Secretary, except as provided in paragraph (3).</p> <p>(2) Limitation The Secretary shall not enter into any loan agreement pursuant this subsection that could result in disbursements after September 30, 2031-2029.</p> <p>(3) Exception The Secretary shall establish criteria for waiving the 50 percent limitation described in paragraph (1).</p>	
<p>(i) Biofuel infrastructure and agriculture product market expansion (1) Appropriation Notwithstanding subsections (a) through (e) and subsection (g), in addition to amounts otherwise available, there is appropriated to the Secretary for fiscal year 2022, out of any money in the Treasury not otherwise appropriated, \$500,000,000, to remain available until September 30, 2031, to carry out this subsection.</p>	<p>(i) Biofuel infrastructure and agriculture product market expansion (1) Appropriation Notwithstanding subsections (a) through (e) and subsection (g), in addition to amounts otherwise available, there is appropriated to the Secretary for fiscal year 2022, out of any money in the Treasury not otherwise appropriated, \$500,000,000, to remain</p>	

<p>(2) Use of funds</p> <p>The Secretary shall use the amounts made available by paragraph (1) to provide grants, for which the Federal share shall be not more than 75 percent of the total cost of carrying out a project for which the grant is provided, on a competitive basis, to increase the sale and use of agricultural commodity-based fuels through infrastructure improvements for blending, storing, supplying, or distributing biofuels, except for transportation infrastructure not on location where such biofuels are blended, stored, supplied, or distributed—</p> <p>(A) by installing, retrofitting, or otherwise upgrading fuel dispensers or pumps and related equipment, storage tank system components, and other infrastructure required at a location related to dispensing certain biofuel blends to ensure the increased sales of fuels with high levels of commodity-based ethanol and biodiesel that are at or greater than the levels required in the Notice of Funding Availability for the Higher Blends Infrastructure Incentive Program for Fiscal Year 2020, published in the Federal Register (85 Fed. Reg. 26656), as determined by the Secretary; and</p> <p>(B) by building and retrofitting home heating oil distribution centers or equivalent entities and distribution systems for ethanol and biodiesel blends.</p>	<p>available until September 30, 2031<u>2029</u>, to carry out this subsection.</p> <p>(2) Use of funds</p> <p>The Secretary shall use the amounts made available by paragraph (1) to provide grants, for which the Federal share shall be not more than 75 percent of the total cost of carrying out a project for which the grant is provided, on a competitive basis, to increase the sale and use of agricultural commodity-based fuels through infrastructure improvements for blending, storing, supplying, or distributing biofuels, except for transportation infrastructure not on location where such biofuels are blended, stored, supplied, or distributed—</p> <p>(A) by installing, retrofitting, or otherwise upgrading fuel dispensers or pumps and related equipment, storage tank system components, and other infrastructure required at a location related to dispensing certain biofuel blends to ensure the increased sales of fuels with high levels of commodity-based ethanol and biodiesel that are at or greater than the levels required in the Notice of Funding Availability for the Higher Blends Infrastructure Incentive Program for Fiscal Year 2020, published in the Federal Register (85 Fed. Reg. 26656), as determined by the Secretary; and</p> <p>(B) by building and retrofitting home heating oil distribution centers or equivalent entities and distribution systems for ethanol and biodiesel blends.</p>	
<p>(j) USDA assistance for rural electric cooperatives</p> <p>(1) Appropriation</p> <p>Notwithstanding subsections (a) through (e) and (g), in addition to amounts otherwise available, there is appropriated to the Secretary for fiscal year 2022, out of any money in the Treasury not otherwise appropriated, \$9,700,000,000, to remain available until September 30, 2031, for the long-term resiliency, reliability, and affordability of rural electric systems by providing to an eligible entity (defined as an electric cooperative described in section 501(c)(12) or 1381(a)(2) of title 26 and is or has been a Rural Utilities Service electric loan borrower pursuant to the Rural Electrification Act of 1936 or serving a predominantly rural area or a wholly or jointly owned subsidiary of such electric cooperative) loans, modifications of loans, the cost of loans and modifications, and other financial assistance to achieve the greatest reduction in carbon dioxide, methane, and nitrous oxide emissions associated with rural electric systems through the purchase of renewable energy, renewable energy systems, zero-emission systems, and carbon capture and storage systems, to deploy such systems, or to make energy efficiency</p>	<p>(j) USDA assistance for rural electric cooperatives</p> <p>(1) Appropriation</p> <p>Notwithstanding subsections (a) through (e) and (g), in addition to amounts otherwise available, there is appropriated to the Secretary for fiscal year 2022, out of any money in the Treasury not otherwise appropriated, \$9,700,000,000, to remain available until September 30, 2031<u>2029</u>, for the long-term resiliency, reliability, and affordability of rural electric systems by providing to an eligible entity (defined as an electric cooperative described in section 501(c)(12) or 1381(a)(2) of title 26 and is or has been a Rural Utilities Service electric loan borrower pursuant to the Rural Electrification Act of 1936 or serving a predominantly rural area or a wholly or jointly owned subsidiary of such electric cooperative) loans, modifications of loans, the cost of loans and modifications, and other financial assistance to achieve the greatest reduction in carbon dioxide, methane, and nitrous oxide emissions associated with rural electric systems through the purchase of renewable energy, renewable energy systems, zero-emission systems, and carbon capture and storage systems, to deploy such systems, or to make energy efficiency</p>	

<p>improvements to electric generation and transmission systems of the eligible entity after August 16, 2022.</p> <p>(2) Limitation No eligible entity may receive an amount equal to more than 10 percent of the total amount made available by this subsection.</p> <p>(3) Requirement The amount of a grant under this subsection shall be not more than 25 percent of the total project costs of the eligible entity carrying out a project using a grant under this subsection.</p> <p>(4) Prohibition Nothing in this subsection shall be interpreted to authorize funds of the Commodity Credit Corporation for activities under this subsection if such funds are not expressly authorized or currently expended for such purposes.</p> <p>(5) Disbursements The Secretary shall not enter into, pursuant to this subsection- (A) any loan agreement that may result in a disbursement after September 30, 2031; or (B) any grant agreement that may result in any outlay after September 30, 2031.</p>	<p>improvements to electric generation and transmission systems of the eligible entity after August 16, 2022.</p> <p>(2) Limitation No eligible entity may receive an amount equal to more than 10 percent of the total amount made available by this subsection.</p> <p>(3) Requirement The amount of a grant under this subsection shall be not more than 25 percent of the total project costs of the eligible entity carrying out a project using a grant under this subsection.</p> <p>(4) Prohibition Nothing in this subsection shall be interpreted to authorize funds of the Commodity Credit Corporation for activities under this subsection if such funds are not expressly authorized or currently expended for such purposes.</p> <p>(5) Disbursements The Secretary shall not enter into, pursuant to this subsection- (A) any loan agreement that may result in a disbursement after September 30, 2031<u>2029</u>; or (B) any grant agreement that may result in any outlay after September 30, 2031<u>2029</u>.</p>	
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This resource will be updated as final House and Senate legislative Farm Bill texts are released.

This fact sheet is available electronically (with hyperlinks and endnotes) at www.eesi.org/papers.

The Environmental and Energy Study Institute (EESI) is a non-profit organization founded in 1984 on a bipartisan basis by members of Congress to help educate and inform policymakers, their staff, stakeholders, and the American public about the benefits of a low-emissions economy that prioritizes energy efficiency, renewable energy, and new clean energy technologies. In 1988, EESI declared that addressing climate change is a moral imperative, which has since guided our work toward our vision: a sustainable, resilient, and equitable world.