

26 USC 45Z : Clean fuel production credit

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From Title 26-INTERNAL REVENUE CODE

Subtitle A-Income Taxes

CHAPTER 1-NORMAL TAXES AND SURTAXES

Subchapter A-Determination of Tax Liability

PART IV-CREDITS AGAINST TAX

Subpart D-Business Related Credits

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§45Z. Clean fuel production credit

(a) Amount of credit

(1) In general

For purposes of section 38, the clean fuel production credit for any taxable year is an amount equal to the product of-

- (A) the applicable amount per gallon (or gallon equivalent) with respect to any transportation fuel which is-
 - (i) produced by the taxpayer at a qualified facility, and
 - (ii) sold by the taxpayer in a manner described in paragraph (4) during the taxable year, and

(B) the emissions factor for such fuel (as determined under subsection (b)).

(2) Applicable amount

(A) Base amount

In the case of any transportation fuel produced at a qualified facility which does not satisfy the requirements described in subparagraph (B), the applicable amount shall be 20 cents.

(B) Alternative amount

In the case of any transportation fuel produced at a qualified facility which satisfies the requirements under paragraphs (6) and (7) of subsection (f), the applicable amount shall be \$1.00.

(3) Definition of sustainable aviation fuel

For purposes of this section, the term "sustainable aviation fuel" means liquid fuel, the portion of which is not kerosene, which is sold for use in an aircraft and which-

- (A) meets the requirements of-
 - (i) ASTM International Standard D7566, or
 - (ii) the Fischer Tropsch provisions of ASTM International Standard D1655, Annex A1, and

(B) is not derived from palm fatty acid distillates or petroleum.

(4) Sale

For purposes of paragraph (1), the transportation fuel is sold in a manner described in this paragraph if such fuel is sold by the taxpayer to an unrelated person-

- (A) for use by such person in the production of a fuel mixture,
- (B) for use by such person in a trade or business, or
- (C) who sells such fuel at retail to another person and places such fuel in the fuel tank of such other person.

(5) Rounding

If any amount determined under paragraph (1) is not a multiple of 1 cent, such amount shall be rounded to the nearest cent.

(b) Emissions factors

(1) Emissions factor

(A) Calculation

(i) In general

The emissions factor of a transportation fuel shall be an amount equal to the quotient of-

- (I) an amount equal to-
 - (aa) 50 kilograms of CO₂e per mmBTU, minus
 - (bb) the emissions rate for such fuel, divided by

(II) 50 kilograms of CO₂e per mmBTU.

(B) Establishment of emissions rate

(i) In general

Subject to clauses (ii), (iii), (iv), and (v), the Secretary shall annually publish a table which sets forth the emissions rate for similar types and categories of transportation fuels based on the amount of lifecycle greenhouse gas emissions (as described in section 211(o)(1)(H) of the Clean Air Act (42 U.S.C. 7545(o)(1)(H)), as in effect on the date of the enactment of this section) for such fuels, expressed as kilograms of CO₂e per mmBTU, which a taxpayer shall use for purposes of this section.

(ii) Non-aviation fuel

In the case of any transportation fuel which is not a sustainable aviation fuel, the lifecycle greenhouse gas emissions of such fuel shall be based on the most recent determinations under the Greenhouse gases, Regulated Emissions, and Energy use in Transportation model developed by Argonne National Laboratory, or a successor model (as determined by the Secretary).

(iii) Aviation fuel

In the case of any transportation fuel which is a sustainable aviation fuel, the lifecycle greenhouse gas emissions of such fuel shall be determined in accordance with-

- (I) the most recent Carbon Offsetting and Reduction Scheme for International Aviation which has been adopted by the International Civil Aviation Organization with the agreement of the United States, or
- (II) any similar methodology which satisfies the criteria under section 211(o)(1)(H) of the Clean Air Act (42 U.S.C. 7545(o)(1)(H)), as in effect on the date of enactment of this section.

(iv) Exclusion of indirect land use changes

Notwithstanding clauses (i), (ii), and (iii), the emissions rate shall be adjusted as necessary to exclude any emissions attributed to indirect land use change. Any such adjustment shall be based on regulations or methodologies determined by the Secretary.

(v) Animal manures

With respect to any transportation fuel which is derived from animal manure, the Secretary-

- (I) shall provide a distinct emissions rate with respect to such fuel based on the specific animal manure feedstock, which may include dairy manure, swine manure, poultry manure, or any other sources as are determined appropriate by the Secretary, and
- (II) notwithstanding subparagraph (E), may provide an emissions rate that is less than zero.

(C) Rounding of emissions rate

The Secretary may round the emissions rates under subparagraph (B) to the nearest multiple of 5 kilograms of CO₂e ¹ per mmBTU.

(D) Provisional emissions rate

In the case of any transportation fuel for which an emissions rate has not been established under subparagraph (B), a taxpayer producing such fuel may file a petition with the Secretary for determination of the emissions rate with respect to such fuel.

(E) Prohibition on negative emission rates

For purposes of this section, the emissions rate for a transportation fuel may not be less than zero.

(2) Rounding

If any amount determined under paragraph (1)(A) is not a multiple of 0.1, such amount shall be rounded to the nearest multiple of 0.1.

(c) Inflation adjustment

(1) In general

In the case of calendar years beginning after 2024, the 20 cent amount in subsection (a)(2)(A) and the \$1.00 amount in subsection (a)(2)(B) shall each be adjusted by multiplying such amount by the inflation adjustment factor for the calendar year in which the sale of the transportation fuel occurs. If any amount as increased under the preceding sentence is not a multiple of 1 cent, such amount shall be rounded to the nearest multiple of 1 cent.

(2) Inflation adjustment factor

For purposes of paragraph (1), the inflation adjustment factor shall be the inflation adjustment factor determined and published by the Secretary pursuant to section 45Y(c), determined by substituting "calendar year 2022" for "calendar year 1992" in paragraph (3) thereof.

(d) Definitions

In this section:

(1) mmBTU

The term "mmBTU" means 1,000,000 British thermal units.

(2) CO₂e

The term "CO₂e" means, with respect to any greenhouse gas, the equivalent carbon dioxide (as determined based on relative global warming potential).

(3) Greenhouse gas

The term "greenhouse gas" has the same meaning given that term under section 211(o)(1)(G) of the Clean Air Act (42 U.S.C. 7545(o)(1)(G)), as in effect on the date of the enactment of this section.

(4) Qualified facility

The term "qualified facility"-

(A) means a facility used for the production of transportation fuels, and

(B) does not include any facility for which one of the following credits is allowed under section 38 for the taxable year:

(i) The credit for production of clean hydrogen under section 45V.

(ii) The credit determined under section 46 to the extent that such credit is attributable to the energy credit determined under section 48 with respect to any specified clean hydrogen production facility for which an election is made under subsection (a)(15) of such section.

(iii) The credit for carbon oxide sequestration under section 45Q.

(5) Transportation fuel

(A) In general

The term "transportation fuel" means a fuel which-

(i) is suitable for use as a fuel in a highway vehicle or aircraft,

(ii) has an emissions rate which is not greater than 50 kilograms of CO₂e per mmBTU,

(iii) is not derived from coprocessing an applicable material (or materials derived from an applicable material) with a feedstock which is not biomass, and

(iv) is not produced from a fuel for which a credit under this section is allowable.

(B) Definitions

In this paragraph-

(i) Applicable material

The term "applicable material" means-

(I) monoglycerides, diglycerides, and triglycerides,

(II) free fatty acids, and

(III) fatty acid esters.

(ii) Biomass

The term "biomass" has the same meaning given such term in section 45K(c)(3).

(C) Regulations and guidance

The Secretary shall issue such regulations or other guidance as the Secretary determines necessary to carry out the purposes of subparagraph (A)(iv).

(e) Guidance

Not later than January 1, 2025, the Secretary shall issue guidance regarding implementation of this section, including calculation of emissions factors for transportation fuel, the table described in subsection (b)(1)(B)(i), and the determination of clean fuel production credits under this section.

(f) Special rules

(1) Only registered production in the United States taken into account

(A) In general

No clean fuel production credit shall be determined under subsection (a) with respect to any transportation fuel unless-

(i) the taxpayer-

(I) is registered as a producer of clean fuel under section 4101 at the time of production, and

(II) in the case of any transportation fuel which is a sustainable aviation fuel, provides-

(aa) certification (in such form and manner as the Secretary shall prescribe) from an unrelated party demonstrating compliance with-

(AA) any general requirements, supply chain traceability requirements, and information transmission requirements established under the Carbon Offsetting and Reduction Scheme for International Aviation described in subclause (I) of subsection (b)(1)(B)(iii), or

(BB) in the case of any methodology described in subclause (II) of such subsection, requirements similar to the requirements described in subitem (AA), and

(bb) such other information with respect to such fuel as the Secretary may require for purposes of carrying out this section,

(ii) such fuel is produced in the United States, and

(iii) such fuel is exclusively derived from a feedstock which was produced or grown in the United States, Mexico, or Canada.

(B) United States

For purposes of this paragraph, the term "United States" includes any possession of the United States.

(2) Production attributable to the taxpayer

In the case of a facility in which more than 1 person has an ownership interest, except to the extent provided in regulations prescribed by the Secretary, production from the facility shall be allocated among such persons in proportion to their respective ownership interests in the gross sales from such facility.

(3) Related persons

Persons shall be treated as related to each other if such persons would be treated as a single employer under the regulations prescribed under section 52(b). In the case of a corporation which is a member of an affiliated group of corporations filing a consolidated return, such corporation shall be treated as selling fuel to an unrelated person if such fuel is sold to such a person by another member of such group. The Secretary may prescribe additional related person rules similar to the rule described in the preceding sentence for entities which are not described in such sentence, including rules for related persons with respect to which the taxpayer has reason to believe will sell fuel to an unrelated person in a manner described in subsection (a)(4).

(4) Pass-thru in the case of estates and trusts

Under regulations prescribed by the Secretary, rules similar to the rules of subsection (d) of section 52 shall apply.

(5) Allocation of credit to patrons of agricultural cooperative

Rules similar to the rules of section 45Y(g)(6) shall apply.

(6) Prevailing wage requirements

(A) In general

Subject to subparagraph (B), rules similar to the rules of section 45(b)(7) shall apply.

(B) Special rule for facilities placed in service before January 1, 2025

For purposes of subparagraph (A), in the case of any qualified facility placed in service before January 1, 2025-

(i) clause (i) of section 45(b)(7)(A) shall not apply, and

(ii) clause (ii) of such section shall be applied by substituting "with respect to any taxable year beginning after December 31, 2024, for which the credit is allowed under this section" for "with respect to any taxable year, for any portion of such taxable year which is within the period described in subsection (a)(2)(A)(ii)".

(7) Apprenticeship requirements

Rules similar to the rules of section 45(b)(8) shall apply.

(8) Restrictions relating to prohibited foreign entities

(A) In general

No credit shall be determined under subsection (a) for any taxable year beginning after the date of enactment of this paragraph if the taxpayer is a specified foreign entity (as defined in section 7701(a)(51)(B)).

(B) Other prohibited foreign entities

No credit shall be determined under subsection (a) for any taxable year beginning after the date which is 2 years after the date of enactment of this paragraph if the taxpayer is a foreign-influenced entity (as defined in section 7701(a)(51)(D), without regard to clause (i)(II) thereof).

(g) Termination

This section shall not apply to transportation fuel sold after December 31, 2029.

(Added Pub. L. 117–169, title I, §13704(a), Aug. 16, 2022, 136 Stat. 1997 ; amended Pub. L. 119–21, title VII, §70521(a)(1), (b)(1), (c)(1), (2), (d)–(f), (g)(2)(A), (B), (k)(1), July 4, 2025, 139 Stat. 276–279 .)

EDITORIAL NOTES**REFERENCES IN TEXT**

The date of the enactment of this section, referred to in subsecs. (b)(1)(B)(i), (iii)(II) and (d)(3), is the date of enactment of Pub. L. 117–169, which was approved Aug. 16, 2022.

The date of enactment of this paragraph, referred to in subsec. (f)(8), is the date of enactment of Pub. L. 119–21, which was approved July 4, 2025.

AMENDMENTS

2025-Subsec. (a)(3). Pub. L. 119–21, §70521(g)(2)(A), amended par. (3) generally. Prior to amendment, par. (3) consisted of subpars. (A) and (B) providing a special rate for the applicable amounts in par. (2) for sustainable aviation fuel and defining "sustainable aviation fuel".

Subsec. (b)(1)(B)(i). Pub. L. 119–21, §70521(c)(2), substituted "clauses (ii), (iii), (iv), and (v)" for "clauses (ii) and (iii)".

Subsec. (b)(1)(B)(iv), (v). Pub. L. 119–21, §70521(c)(1), added cls. (iv) and (v).

Subsec. (b)(1)(C). Pub. L. 119–21, §70521(b)(1)(A), added subpar. (C) and struck out former subpar. (C). Prior to amendment, text read as follows:

"(i) **IN GENERAL.**-Subject to clause (ii), the Secretary may round the emissions rates under subparagraph (B) to the nearest multiple of 5 kilograms of CO₂e per mmBTU.

"(ii) **EXCEPTION.**-In the case of an emissions rate that is between 2.5 kilograms of CO₂e per mmBTU and -2.5 kilograms of CO₂e per mmBTU, the Secretary may round such rate to zero."

Subsec. (b)(1)(E). Pub. L. 119–21, §70521(b)(1)(B), added subpar. (E).

Subsec. (c)(1). Pub. L. 119–21, §70521(g)(2)(B), substituted "and the \$1.00 amount in subsection (a)(2)(B)" for ", the \$1.00 amount in subsection (a)(2)(B), the 35 cent amount in subsection (a)(3)(A)(i), and the \$1.75 amount in subsection (a)(3)(A)(ii)".

Subsec. (d)(5)(A)(iv). Pub. L. 119–21, §70521(e)(1), added cl. (iv).

Subsec. (d)(5)(C). Pub. L. 119–21, §70521(e)(2), added subpar. (C).

Subsec. (f)(1)(A)(iii). Pub. L. 119–21, §70521(a)(1), added cl. (iii).

Subsec. (f)(3). Pub. L. 119–21, §70521(f), inserted at end "The Secretary may prescribe additional related person rules similar to the rule described in the preceding sentence for entities which are not described in such sentence, including rules for related persons with respect to which the taxpayer has reason to believe will sell fuel to an unrelated person in a manner described in subsection (a)(4)."

Subsec. (f)(8). Pub. L. 119–21, §70521(k)(1), added par. (8).

Subsec. (g). Pub. L. 119–21, §70521(d), substituted "December 31, 2029" for "December 31, 2027".

STATUTORY NOTES AND RELATED SUBSIDIARIES**EFFECTIVE DATE OF 2025 AMENDMENT**

Pub. L. 119–21, [title VII, §70521\(a\)\(2\), July 4, 2025](#), 139 Stat. 276 , provided that: "The amendments made by this subsection [amending this section] shall apply to transportation fuel produced after December 31, 2025."

Pub. L. 119–21, [title VII, §70521\(b\)\(2\), July 4, 2025](#), 139 Stat. 276 , provided that: "The amendments made by this subsection [amending this section] shall apply to emissions rates published for transportation fuel produced after December 31, 2025."

Pub. L. 119–21, [title VII, §70521\(c\)\(3\), July 4, 2025](#), 139 Stat. 277 , provided that: "The amendments made by this subsection [amending this section] shall apply to emissions rates published for transportation fuel produced after December 31, 2025."

Pub. L. 119–21, [title VII, §70521\(g\)\(2\)\(C\), July 4, 2025](#), 139 Stat. 278 , provided that: "The amendments made by this paragraph [amending this section] shall apply to fuel produced after December 31, 2025."

Pub. L. 119–21, [title VII, §70521\(k\)\(2\), July 4, 2025](#), 139 Stat. 279 , provided that: "The amendment made by this subsection [amending this section] shall apply to taxable years beginning after the date of enactment of this Act [July 4, 2025]."

EFFECTIVE DATE

Pub. L. 117–169, [title I, §13704\(c\), Aug. 16, 2022](#), 136 Stat. 2003 , provided that: "The amendments made by this section [enacting this section and amending sections 25C, 30C, 38, and 4101 of this title] shall apply to transportation fuel produced after December 31, 2024."

¹ So in original. Probably should be "CO₂e".