

[DISCUSSION DRAFT]**TITLE II—ZERO-EMISSION
ELECTRICITY STANDARD****Subtitle A—Zero-Emission
Electricity Standard****5 SEC. 201. DEFINITIONS.**

6 In this subtitle:

7 (1) ADMINISTRATOR.—The term “Adminis-
8 trator” means the Administrator of the Environ-
9 mental Protection Agency.

10 (2) AFFILIATE.—The term “affiliate” has the
11 meaning given such term in section 1262 of the En-
12 ergy Policy Act of 2005 (42 U.S.C. 16451).

13 (3) ASSOCIATE COMPANY.—The term “associate
14 company” has the meaning given such term in sec-
15 tion 1262 of the Energy Policy Act of 2005 (42
16 U.S.C. 16451).

17 (4) BEHIND-THE-METER GENERATION SYS-
18 TEM.—The term “behind-the-meter generation sys-
19 tem” means a system of generation of electric en-
20 ergy that operates on the electric consumer side of
21 the applicable utility meter.

1 (5) BENEFICIAL ELECTRIFICATION-RELATED
2 REDUCTION.—The term “beneficial electrification-re-
3 lated reduction” means the net reduction of the ag-
4 gregate greenhouse gas emissions attributable to a
5 retail electricity supplier and an electric consumer as
6 the result of the replacement of a nonelectric energy
7 source used by the electric consumer with electric
8 energy provided by the retail electricity supplier, in-
9 cluding for the purpose of transportation, space
10 heating, water heating, or industrial processes.

11 (6) CARBON DIOXIDE EQUIVALENT.—The term
12 “carbon dioxide equivalent” means the number of
13 metric tons of carbon dioxide emissions with the
14 same global warming potential over a 20-year period
15 as 1 metric ton of another greenhouse gas, includ-
16 ing, in determining such global warming potential—

17 (A) the effects of climate-carbon feedbacks
18 for both carbon dioxide and the other green-
19 house gas, as determined in accordance with
20 the Fifth Assessment Report of the Intergov-
21 ernmental Panel on Climate Change; and

22 (B) for methane, the effect of carbon diox-
23 ide resulting from methane oxidation in the at-
24 mosphere.

1 (7) CARBON INTENSITY.—The term “carbon in-
2 tensity” means the carbon dioxide equivalent emis-
3 sions associated with the generation of 1 megawatt-
4 hour of electric energy, as determined by the Admin-
5 istrator under section 204.

6 (8) ELECTRIC CONSUMER.—The term “electric
7 consumer” has the meaning given such term in sec-
8 tion 3 of the Public Utility Regulatory Policies Act
9 of 1978 (16 U.S.C. 2602).

10 (9) FEDERAL POWER MARKETING ADMINISTRA-
11 TION.—The term “Federal Power Marketing Admin-
12 istration” means the Bonneville Power Administra-
13 tion, the Southeastern Power Administration, the
14 Southwestern Power Administration, or the Western
15 Area Power Administration.

16 (10) GENERATING UNIT.—The term “gener-
17 ating unit” means a unit or system of units that—

18 (A) generates electric energy that is con-
19 sumed in the United States;

20 (B) generates not fewer than 20 megawatt-
21 hours of electric energy per calendar year; and

22 (C)(i) delivers electric energy to the elec-
23 tric grid; or

24 (ii) in the case of a behind-the-meter gen-
25 eration system—

1 (I) delivers electric energy to the elec-
2 tric grid; or

3 (II) generates electric energy that is
4 consumed onsite for a useful purpose other
5 than for generating electric energy.

6 (11) GENERATOR.—The term “generator”
7 means the owner or operator of a generating unit.

8 (12) GREENHOUSE GAS.—The term “green-
9 house gas” includes each of the following:

10 (A) Carbon dioxide.

11 (B) Methane.

12 (C) Nitrous oxide.

13 (D) Sulfur hexafluoride.

14 (E) Any hydrofluorocarbon.

15 (F) Any perfluorocarbon.

16 (G) Nitrogen trifluoride.

17 (H) Any fully fluorinated linear, branched,
18 or cyclic—

19 (i) alkane;

20 (ii) ether;

21 (iii) tertiary amine; or

22 (iv) aminoether.

23 (I) Any perfluoropolyether.

24 (J) Any hydrofluoropolyether.

1 (K) Any other fluorocarbon, except for a
2 fluorocarbon with a vapor pressure of less than
3 1 mm of Hg absolute at 25 degrees Celsius.

4 (13) QUALIFIED COMBINED HEAT AND POWER
5 SYSTEM.—The term “qualified combined heat and
6 power system” means a system that—

7 (A) uses the same energy source for the si-
8 multaneous or sequential generation of electric
9 energy and thermal energy;

10 (B) produces at least—

11 (i) 20 percent of the useful energy of
12 the system in the form of electric energy;
13 and

14 (ii) 20 percent of the useful energy of
15 the system in the form of useful thermal
16 energy;

17 (C) to the extent that the system uses bio-
18 mass, uses only qualified renewable biomass;
19 and

20 (D) operates with an energy efficiency per-
21 centage, as determined in accordance with sec-
22 tion 48(c)(3)(C)(i) of the Internal Revenue
23 Code of 1986, of greater than 60 percent on a
24 year-round basis.

25 (14) QUALIFIED ELECTRICITY GENERATION.—

1 (A) IN GENERAL.—The term “qualified
2 electricity generation” means the number of
3 megawatt-hours of electric energy that a gener-
4 ator generates using a generating unit and—

5 (i) sells directly or indirectly for use
6 by electric consumers for purposes other
7 than resale; or

8 (ii) that is consumed onsite for a use-
9 ful purpose other than for generating elec-
10 tric energy.

11 (B) AFFILIATE SALES.—For purposes of
12 calculating the quantity of electric energy sold
13 by a retail electricity supplier under this para-
14 graph, the quantity of electric energy sold—

15 (i) by an affiliate of the retail elec-
16 tricity supplier, or an associate company of
17 the retail electricity supplier, to an electric
18 consumer (other than to a lessee or tenant
19 of the affiliate or associate company) shall
20 be treated as sold by the retail electricity
21 supplier; and

22 (ii) by such retail electricity supplier
23 to an affiliate, lessee, or tenant of the re-
24 tail electricity supplier shall not be consid-
25 ered to be a sale to an electric consumer.

1 (15) QUALIFIED LOW-CARBON FUEL.—

2 (A) IN GENERAL.—The term “qualified
3 low-carbon fuel” means a fuel that—

4 (i) is produced through any process
5 that significantly limits or avoids green-
6 house gas emissions; and

7 (ii) does not release greenhouse gas
8 emissions during combustion.

9 (B) INCLUSION.—The term “qualified low-
10 carbon fuel” includes, subject to subparagraph
11 (A)—

12 (i) ammonia; and

13 (ii) hydrogen.

14 (16) QUALIFIED RENEWABLE BIOMASS.—

15 (A) IN GENERAL.—The term “qualified re-
16 newable biomass” means—

17 (i) any crop byproduct, or crop res-
18 idue, harvested from actively managed, or
19 fallow, agricultural nonforested land that
20 was cleared before January 1, 2021, if the
21 harvesting of the byproduct or residue does
22 not lead to a net decline in soil organic
23 matter for the applicable land;

24 (ii) any cellulose, hemicellulose, or
25 lignin that is derived from a woody or

1 nonwoody plant that is planted for “closed-
2 loop biomass”, as defined in section
3 45(c)(2) of the Internal Revenue Code of
4 1986, on land that was, as of January 1,
5 2021—

6 (I) actively managed cropland or
7 fallow and nonforested cropland, as
8 defined by the Department of Agri-
9 culture;

10 (II) a brownfield site (as defined
11 in section 101(39) of the Comprehen-
12 sive Environmental Response, Com-
13 pensation, and Liability Act of 1980
14 (42 U.S.C. 9601(39))); or

15 (III) an abandoned mine site;

16 (iii) nonhazardous algal or other
17 micro-crop matter;

18 (iv) waste—

19 (I) that is burned in a qualified
20 combined heat and power system; and

21 (II) that is—

22 (aa) a gas that is primarily
23 composed of methane, and that
24 has been generated entirely from
25 the decomposition of organic

1 matter, including sewage, food
2 waste, animal waste, and agricul-
3 tural waste;

4 (bb) nonhazardous land-
5 scape or right-of-way trimmings;

6 (cc) vegetative matter re-
7 moved from an area located not
8 more than 200 yards from a
9 building, residence, or camp-
10 ground for the purpose of pro-
11 tecting structures from wildfire;

12 (dd) any byproduct of a
13 wood mill or paper mill oper-
14 ation, including lignin in spent
15 pulping liquors, that is dem-
16 onstrated to otherwise be burned
17 for energy onsite;

18 (ee) plant material removed
19 for the purposes of invasive or
20 noxious plant species control; or

21 (ff) downed wood from ex-
22 treme weather events; and

23 (v) food waste.

24 (B) LIMIT OF INCLUSION OF INVASIVE
25 SPECIES.—Except as provided in subparagraph

1 (A)(iv)(II)(ee), the term “qualified renewable
2 biomass” does not include any matter that the
3 Secretary of Agriculture, in consultation with
4 other Federal or State departments and agen-
5 cies the Secretary determines appropriate, de-
6 termines is derived from—

7 (i) a plant that is invasive or noxious;

8 or

9 (ii) a species or varieties of plants
10 that are potentially invasive.

11 (C) OVERSIGHT.—The Administrator shall
12 consult with the Chiefs of the United States
13 Forest Service, the Fish and Wildlife Service,
14 and the Natural Resources Conservation Serv-
15 ice in implementing subparagraphs (A) and
16 (B).

17 (D) EMISSIONS.—The term “qualified re-
18 newable biomass” does not include any biomass
19 the processing or combustion of which results in
20 emissions of—

21 (i) an air pollutant for which air qual-
22 ity criteria has been issued under section
23 108 of the Clean Air Act (42 U.S.C.
24 7408); or

1 (ii) a hazardous air pollutant (as de-
2 fined in section 112 of the Clean Air Act
3 (42 U.S.C. 7412(b))).

4 (17) QUALIFIED WASTE-TO-ENERGY.—The
5 term “qualified waste-to-energy” means electric en-
6 ergy generated—

7 (A) from the combustion of—

8 (i) post-recycled municipal solid waste,
9 provided such combustion does not result
10 in emissions of—

11 (I) an air pollutant for which air
12 quality criteria has been issued under
13 section 108 of the Clean Air Act (42
14 U.S.C. 7408); or

15 (II) a hazardous air pollutant (as
16 defined in section 112 of the Clean
17 Air Act (42 U.S.C. 7412));

18 (ii) gas produced from the gasification
19 or pyrolization of post-recycled municipal
20 solid waste;

21 (iii) waste described in paragraph
22 (16)(A)(iv)(II);

23 (iv) other animal waste or animal by-
24 products;

25 (v) food waste;

1 (vi) a gas that is primarily composed
2 of methane, and that has been generated
3 entirely from the decomposition of organic
4 matter, including sewage, food waste, ani-
5 mal waste, and agricultural waste; or

6 (vii) if diverted from or separated
7 from other waste out of a municipal waste
8 stream—

9 (I) paper products that are not
10 commonly recyclable;

11 (II) solid-wood yard waste, pal-
12 lets, or crates; or

13 (III) manufacturing and con-
14 struction debris; and

15 (B) at a facility that the Administrator has
16 certified, within the past 3 years, is in compli-
17 ance with all applicable Federal and State envi-
18 ronmental permits.

19 (18) RETAIL ELECTRICITY SUPPLIER.—The
20 term “retail electricity supplier”, as determined for
21 each calendar year, means an entity in the United
22 States that sold not fewer than 20 megawatt-hours
23 of electric energy to electric consumers for purposes
24 other than resale during the preceding calendar
25 year.

1 (19) SALE.—The term “sale”, when used with
2 respect to electric energy, has the meaning given
3 such term in section 3(13) of the Public Utility Reg-
4 ulatory Policies Act of 1978 (16 U.S.C. 2602(13)).

5 (20) STATE.—Except as otherwise provided in
6 this title, the term “State” means a State of the
7 United States and any district, commonwealth, terri-
8 tory, or possession of the United States.

9 (21) ZERO-EMISSION ELECTRICITY.—The term
10 “zero-emission electricity” means the amount, in
11 megawatt-hours, of electric energy generated by a
12 generating unit that is not associated with the re-
13 lease of greenhouse gases into the atmosphere, as
14 calculated by multiplying—

15 (A) the qualified electricity generation of
16 the generating unit; by

17 (B) the number that equals—

18 (i) 1.0; less

19 (ii) the quotient obtained by divid-
20 ing—

21 (I) the carbon intensity of the
22 generating unit; by

23 (II) 0.82.

1 (22) ZERO-EMISSION ELECTRICITY CREDIT.—
2 The term “zero-emission electricity credit” means a
3 credit issued pursuant to section 204.

4 **SEC. 202. ZERO-EMISSION ELECTRICITY REQUIREMENT.**

5 (a) ZERO-EMISSION ELECTRICITY REQUIREMENT.—

6 (1) CREDIT SUBMISSION REQUIREMENT.—

7 (A) IN GENERAL.—Except as otherwise
8 provided in this section, effective beginning with
9 calendar year 2023, for each calendar year, not
10 later than June 1 of the following calendar
11 year, each retail electricity supplier shall submit
12 to the Administrator a quantity of zero-emis-
13 sion electricity credits that is equal to—

14 (i) for each of calendar years 2023
15 and 2024, the quantity of zero-emission
16 electricity credits determined under para-
17 graph (3) for the retail electricity supplier
18 for such calendar year; and

19 (ii) for calendar year 2025 and each
20 calendar year thereafter, the average of the
21 quantity of zero-emission electricity credits
22 determined under paragraph (3) for the re-
23 tail electricity supplier for such calendar
24 year and the two prior calendar years.

1 (B) ACCOUNTING FOR UNDERCOMPLIANCE
2 DUE TO ENERGY LOSS.—Notwithstanding sub-
3 paragraph (A)(ii), beginning in 2035, and for
4 each calendar year thereafter, if the percentage
5 of national undercompliance due to energy loss
6 is greater than 1 for the calendar year, a retail
7 electricity supplier that has a percentage of in-
8 dividual undercompliance due to energy loss
9 that is greater than 1 for the calendar year
10 shall submit to the Administrator a quantity of
11 zero-emission electricity credits that is equal to
12 the number obtained by dividing—

13 (i) the quantity of zero-emission elec-
14 tricity credits described in subparagraph
15 (A)(ii); by

16 (ii) the number that equals 1 minus—

17 (I) the percentage of national
18 undercompliance due to energy loss
19 for the calendar year; divided by

20 (II) 100.

21 (2) VOLUNTARY ASSIGNMENT OF COMPLIANCE
22 OBLIGATION BY PUBLIC POWER UTILITIES AND
23 ELECTRIC COOPERATIVES.—Any retail electricity
24 supplier that is an electric cooperative, a State, or
25 any political subdivision of a State, may elect to

1 enter into an agreement with a political subdivision
2 of a State, an electric cooperative that has an obliga-
3 tion to serve such retail electricity supplier, or a gen-
4 erator, to assign any reporting or compliance obliga-
5 tion under this title to such other political subdivi-
6 sion of a State, electric cooperative, or generator. An
7 assignment made under this paragraph shall be es-
8 tablished through a binding agreement executed
9 among the relevant parties.

10 (3) QUANTITY OF ZERO-EMISSION ELECTRICITY
11 CREDITS.—

12 (A) IN GENERAL.—For each calendar year,
13 the Administrator shall determine a quantity of
14 zero-emission electricity credits for a retail elec-
15 tricity supplier that is equal to the product ob-
16 tained by multiplying—

17 (i) the total quantity of electric en-
18 ergy, in megawatt-hours, consumed by
19 electric consumers of the retail electricity
20 supplier during the calendar year, that is
21 provided by the retail electricity supplier or
22 by a behind-the-meter generation system,
23 as reported under subsection (b); by

24 (ii) the minimum percentage of zero-
25 emission electricity for the calendar year.

1 (B) DEDUCTION FOR BENEFICIAL ELEC-
2 TRIFICATION.—

3 (i) DEDUCTION.—To account for ben-
4 efcial electrification, in calculating the
5 total quantity of electric energy consumed
6 by electric consumers of a retail electricity
7 supplier under subparagraph (A)(i), the
8 Administrator shall deduct a quantity, in
9 megawatt-hours, determined in accordance
10 with clause (ii).

11 (ii) DETERMINATION.—The Adminis-
12 trator shall make a determination of the
13 quantity of electric energy, in megawatt-
14 hours, associated with beneficial electrifica-
15 tion-related reductions for a retail elec-
16 tricity supplier for a calendar year. Such
17 determination shall be made on the basis
18 of—

19 (I) the carbon intensity of the
20 electric energy sold by the retail elec-
21 tricity supplier that results in such
22 beneficial electrification-related reduc-
23 tions; and

24 (II) the greenhouse gas emissions
25 of nonelectric energy sources that

1 were replaced with electric energy pro-
2 vided by the retail electricity supplier
3 which results in such beneficial elec-
4 trification-related reductions.

5 (iii) PHASE-OUT OF DEDUCTION.—In
6 determining the quantity of electric energy
7 to deduct under clause (ii), the Adminis-
8 trator shall ensure that the deduction is re-
9 duced to zero at the same rate that the
10 minimum percentage of zero-emission elec-
11 tricity increases to 100 percent.

12 (C) SYSTEM SUPPORT RESOURCE.—For
13 any calendar year in which a generating unit
14 that is owned by a retail electricity supplier has
15 been designated a System Support Resource by
16 the Federal Energy Regulatory Commission
17 and is thereby required, by an Independent Sys-
18 tem Operator or Regional Transmission Organi-
19 zation, or under a State-regulated resource
20 planning process, to remain in operation be-
21 cause retirement of the generating unit would
22 harm the reliability of the electric energy trans-
23 mission system, in calculating the total quantity
24 of electric energy consumed by electric con-
25 sumers of the retail electricity supplier under

1 subparagraph (A)(i), the Administrator shall
2 deduct the quantity of megawatt-hours of elec-
3 tricity generated by such generating unit during
4 such calendar year.

5 (4) AVERAGE CREDIT PRICES.—For each cal-
6 endar year, the Administrator shall—

7 (A) analyze the market for zero-emission
8 electricity credits in order to determine the av-
9 erage annual price of zero-emission electricity
10 credits for the calendar year;

11 (B) determine whether the average annual
12 price of a zero-emission electricity credit deter-
13 mined under subparagraph (A) is less than the
14 breakthrough credit price under paragraph (6)
15 for the calendar year; and

16 (C) publish the determinations made under
17 subparagraphs (A) and (B) by not later than
18 January 31 of the year following the calendar
19 year.

20 (5) DEFINITIONS.—In this subsection:

21 (A) ANNUAL PERCENTAGE INCREASE.—

22 (i) IN GENERAL.—Except as provided
23 in clause (ii), the term “annual percentage
24 increase” means, with respect to a retail

1 electricity supplier, the product obtained by
2 multiplying—

3 (I) the difference between 100
4 percent and the baseline zero-emission
5 electricity percentage; by—

6 (II) $\frac{1}{27}$.

7 (ii) ACCELERATED ANNUAL PERCENT-
8 AGE INCREASE.—Notwithstanding clause
9 (i), beginning with calendar year 2026, if
10 the Administrator determines under para-
11 graph (4) that the average annual price of
12 a zero-emission electricity credit for each
13 of the 3 or more calendar years prior to a
14 calendar year (in this clause referred to as
15 “the applicable calendar year”) is less than
16 the breakthrough credit price for the appli-
17 cable calendar year, the term “annual per-
18 centage increase” means, for the 1 cal-
19 endar year that begins 4 years after the
20 end of the applicable calendar year, the
21 percentage that is—

22 (I) twice the percentage described
23 in clause (i) if the period of break-
24 through credit prices is 3 consecutive
25 calendar years;

1 (II) three times the percentage
2 described in clause (i) if the period of
3 breakthrough credit prices is 4 con-
4 secutive calendar years;

5 (III) four times the percentage
6 described in clause (i) if the period of
7 breakthrough credit prices is 5 con-
8 secutive calendar years;

9 (IV) five times the percentage de-
10 scribed in clause (i) if the period of
11 breakthrough credit prices is 6 con-
12 secutive calendar years; and

13 (V) six times the percentage de-
14 scribed in clause (i) if the period of
15 breakthrough credit prices is 7 con-
16 secutive calendar years.

17 (B) BASELINE ZERO-EMISSION ELEC-
18 TRICITY PERCENTAGE.—

19 (i) IN GENERAL.—The term “baseline
20 zero-emission electricity percentage”
21 means, with respect to a retail electricity
22 supplier, the average percentage of the
23 electric energy consumed by all electric
24 consumers of the retail electricity supplier

1 that is zero-emission electricity during cal-
2 endar years 2017, 2018, and 2019.

3 (ii) ELECTION.—For any retail elec-
4 tricity supplier served by an Independent
5 System Operator or a Regional Trans-
6 mission Organization, or participating in a
7 joint unit commitment and centralized eco-
8 nomic dispatch system regulated by the
9 Federal Energy Regulatory Commission,
10 the retail electricity supplier may elect to
11 set its baseline zero-emission electricity
12 percentage under clause (i) on the basis of
13 the zero-emission electricity and electric
14 energy consumed by either—

15 (I) all electric consumers of the
16 retail electricity supplier; or

17 (II) all electric consumers served
18 by the Independent System Operator,
19 Regional Transmission Organization,
20 or the applicable joint unit commit-
21 ment and centralized economic dis-
22 patch system that serves the retail
23 electricity supplier.

24 (iii) NOTIFICATION OF ELECTION.—A
25 retail electricity supplier shall inform the

1 Administrator of its election under clause
2 (ii) not later than 180 days after the date
3 of enactment of this Act.

4 (C) BREAKTHROUGH CREDIT PRICE.—The
5 term “breakthrough credit price” means, for a
6 calendar year, the price listed in the table under
7 paragraph (6) labeled “breakthrough credit
8 price”.

9 (D) MINIMUM PERCENTAGE OF ZERO-
10 EMISSION ELECTRICITY.—The term “minimum
11 percentage of zero-emission electricity” means,
12 with respect to a retail electricity supplier—

13 (i) for each of calendar years 2023
14 and 2024, the baseline zero-emission elec-
15 tricity percentage;

16 (ii) for each of calendar years 2025
17 through 2050, the amount, not to exceed
18 100 percent, obtained by adding—

19 (I) the minimum percentage of
20 zero-emission electricity for the pre-
21 vious calendar year; and

22 (II) the annual percentage in-
23 crease; and

24 (iii) for each calendar year after 2050,
25 100 percent.

1 (E) PERCENTAGE OF INDIVIDUAL UNDER-
2 COMPLIANCE DUE TO ENERGY LOSS.—The term
3 “percentage of individual undercompliance due
4 to energy loss” means, with respect to a cal-
5 endar year, for a retail electricity supplier, the
6 number that is equal to—

7 (i) 100; multiplied by
8 (ii) the number that is equal to—
9 (I) the number that is obtained
10 by dividing—

11 (aa) the number of zero-
12 emission electricity credits that
13 the retail electricity supplier
14 would be required to submit to
15 the Administrator but for para-
16 graph (1)(B); by

17 (bb) the number of mega-
18 watt-hours of electric energy sold
19 by the retail electricity supplier
20 to electric consumers; less

21 (II) the number that is obtained
22 by dividing—

23 (aa) the number of zero-
24 emission electricity credits award-
25 ed by the Administrator to gen-

1 erators for the electric energy
2 that is sold by the retail elec-
3 tricity supplier to electric con-
4 sumers; by

5 (bb) the number of mega-
6 watt-hours of electric energy gen-
7 erated by the generators that is
8 provided to the retail electricity
9 supplier for sale to electric con-
10 sumers.

11 (F) PERCENTAGE OF NATIONAL UNDER-
12 COMPLIANCE DUE TO ENERGY LOSS.—The term
13 “percentage of national undercompliance due to
14 energy loss” means, with respect to a calendar
15 year, the number that is equal to—

16 (i) 100; multiplied by

17 (ii) the number that is equal to—

18 (I) the number that is obtained
19 by dividing—

20 (aa) the total number of
21 zero-emission electricity credits
22 that all retail electricity suppliers
23 would be required to submit but
24 for paragraph (1)(B); by

1 (bb) the total number of
2 megawatt-hours of electric energy
3 sold by retail electricity suppliers
4 to electric consumers; less

5 (II) the number that is obtained
6 by dividing—

7 (aa) the total number of
8 zero-emission electricity credits
9 awarded by the Administrator to
10 all generators; by

11 (bb) the total number of
12 megawatt-hours of electric energy
13 generated by all generators.

14 (G) PERIOD OF BREAKTHROUGH CREDIT
15 PRICES.—The term “period of breakthrough
16 credit prices” means the number of consecutive
17 calendar years for which the average annual
18 price of a zero-emission electricity credit is less
19 than the breakthrough credit price for each
20 such year, as determined by the Administrator
21 under paragraph (4).

22 (6) ALTERNATIVE COMPLIANCE PAYMENTS;
23 BREAKTHROUGH CREDIT PRICES.—For a calendar
24 year, amounts of alternative compliance payments
25 and breakthrough credit prices are as follows:

Calendar year	Breakthrough Credit Price	Alternative compliance payment
2023	\$10.75	\$21.50
2024	\$11.50	\$23.00
2025	\$12.25	\$24.50
2026	\$13.00	\$26.00
2027	\$13.75	\$27.50
2028	\$14.50	\$29.00
2029	\$15.25	\$30.50
2030	\$16.00	\$32.00
2031	\$16.75	\$33.50
2032	\$17.50	\$35.00
2033	\$18.25	\$36.50
2034	\$19.00	\$38.00
2035	\$19.75	\$39.50
2036	\$20.50	\$41.00
2037	\$21.25	\$42.50
2038	\$22.00	\$44.00
2039	\$22.75	\$45.50
2040	\$23.50	\$47.00
2041	\$24.25	\$48.50
2042	\$25.00	\$50.00
2043	\$25.75	\$51.50
2044	\$26.50	\$53.00
2045	\$27.25	\$54.50
2046	\$28.00	\$56.00
2047	\$28.75	\$57.50
2048	\$29.50	\$59.00
2049	\$30.25	\$60.50
2050 and each cal- endar year thereafter	\$31.00	\$62.00.

1 (b) REPORTING ON BEHIND-THE-METER GENERA-
2 TION SYSTEMS.—Effective beginning in calendar year
3 2023, each retail electricity supplier serving one or more
4 behind-the-meter generation systems may, not later than
5 January 1 of each calendar year, submit to the Adminis-
6 trator—

7 (1) verification of the carbon intensity of be-
8 hind-the-meter generation systems connected to the
9 retail electricity supplier; and

1 (2) the quantity of electric energy generated by
2 each such behind-the-meter generation system that
3 is consumed for a useful purpose by electric con-
4 sumers served by the retail electricity supplier.

5 (c) ALTERNATIVE COMPLIANCE PAYMENTS.—A re-
6 tail electricity supplier may satisfy the requirements of
7 subsection (a) with respect to a calendar year, in whole
8 or in part, by submitting to the Administrator, in lieu of
9 each zero-emission electricity credit that would otherwise
10 be due, an alternative compliance payment equal to the
11 amount determined for such calendar year in accordance
12 with the table in subsection (a)(6), adjusted for inflation.

13 (d) DETERMINATION OF INADEQUATE AVAILABILITY
14 OF ZERO-EMISSION ELECTRICITY TECHNOLOGY.—

15 (1) PETITION FOR DETERMINATION.—A retail
16 electricity supplier (referred to in this subsection as
17 the “petitioner”) may submit to the Administrator a
18 petition for the Administrator to make a determina-
19 tion of inadequate availability of technology relating
20 to zero-emission electricity with respect to a calendar
21 year.

22 (2) CONDITIONS.—The Administrator shall
23 make an affirmative determination under paragraph
24 (1) (referred to in this title as a “determination of

1 inadequate availability of technology”) for a calendar
2 year only if—

3 (A) a petition is submitted to the Adminis-
4 trator by January 31 of the following calendar
5 year;

6 (B) the average annual price of zero-emis-
7 sion electricity credits is equal to or greater
8 than the alternative compliance payment under
9 subsection (a)(6) for such calendar year;

10 (C) the Administrator determines the num-
11 ber of megawatt-hours of zero-emission elec-
12 tricity that could have been generated or pur-
13 chased by the petitioner using technology that
14 was available during such calendar year—

15 (i) at or below the cost per megawatt-
16 hour of the technology used to generate
17 the electricity sold by the petitioner in the
18 previous calendar year; and

19 (ii) while enabling the petitioner to
20 operate its system at an adequate level of
21 reliability; and

22 (D) the number of megawatt-hours deter-
23 mined under subparagraph (C) is less than the
24 number of zero-emission electricity credits the

1 petitioner would be required to submit under
2 subsection (a).

3 (3) CREDIT SUBMISSION.—Notwithstanding
4 subsection (a)(1), if the Administrator makes a de-
5 termination of inadequate availability of technology
6 for a petitioner for a calendar year, as described
7 under this subsection, the petitioner shall not be re-
8 quired to submit for such calendar year more than
9 the number of zero-emission electricity credits equal
10 to the number of megawatt-hours determined under
11 paragraph (2)(C).

12 (4) CARBON MITIGATION AWARDS.—For the
13 calendar year identified under paragraph (3), if the
14 Administrator makes one or more determinations of
15 inadequate availability of technology under this sub-
16 section, the Administrator shall award under section
17 205(b) an amount of money equal to the sum of—

18 (A) the total amount paid by retail elec-
19 tricity suppliers as alternative compliance pay-
20 ments; and

21 (B) the total amount of the alternative
22 compliance payments that would have been
23 made by the petitioner or petitioners but for the
24 determination of inadequate availability of tech-
25 nology made under paragraph (2).

1 (e) EXEMPTIONS.—

2 (1) RECIPIENTS OF ACCELERATION INVEST-
3 MENT CREDITS.—A qualified zero-emission elec-
4 tricity taxpayer that receives a zero-emission elec-
5 tricity acceleration investment credit for a calendar
6 year under section 45V of the Internal Revenue
7 Code of 1986, as added by section 301 of this Act,
8 shall not be subject to the requirements to submit
9 zero-emission electricity credits under this section
10 for such calendar year and each calendar year there-
11 after.

12 (2) RECIPIENTS OF ACCELERATION GRANTS.—
13 An eligible electricity provider that is awarded a
14 grant under section 302 of this Act for a calendar
15 year shall not be subject to the requirements to sub-
16 mit zero-emission electricity credits under this sec-
17 tion for such calendar year and each calendar year
18 thereafter, as long as the condition described under
19 section 302(a)(1) continues to be met.

20 **SEC. 203. ZERO-EMISSION ELECTRICITY CREDIT TRADING**
21 **PROGRAM.**

22 (a) ESTABLISHMENT.—Not later than 1 year after
23 the date of enactment of this Act, the Administrator shall
24 establish a zero-emission electricity credit trading program
25 under which—

1 (1) the Administrator shall record, track, auc-
2 tion, and transfer zero-emission electricity credits;
3 and

4 (2) a generator to whom such zero-emission
5 electricity credits are issued may sell or otherwise
6 transfer those credits, as provided or allowed by ap-
7 plicable contracts, through—

8 (A) any auction established under the zero-
9 emission electricity credit trading program;

10 (B) direct sales; or

11 (C) other transactional arrangements that
12 sell electric energy or generating capacity either
13 separately or combined with the transfer of
14 zero-emission electricity credits, including trans-
15 actions that pair zero-emission electricity cred-
16 its with the demand of the retail electricity sup-
17 plier.

18 (b) ADMINISTRATION.—In carrying out the program
19 under this section, the Administrator shall ensure that a
20 zero-emission electricity credit may be—

21 (1) submitted only once under section 202(a);

22 and

23 (2) only purchased by, transferred to, or other-
24 wise secured by a retail electricity supplier.

25 (c) DELEGATION OF MARKET FUNCTION.—

1 (1) IN GENERAL.—In carrying out the program
2 under this section, the Administrator may delegate,
3 to one or more appropriate entities—

4 (A) the administration of a transparent
5 national market for the sale or trade of zero-
6 emission electricity credits; and

7 (B) the tracking of dispatch of zero-emis-
8 sion electricity generation.

9 (2) ADMINISTRATION.—In making a delegation
10 under paragraph (1), the Administrator shall ensure
11 that the tracking and reporting of information con-
12 cerning zero-emission electricity generation is trans-
13 parent, verifiable, and independent of any entities
14 subject to an obligation under this title.

15 (d) BANKING OF ZERO-EMISSION ELECTRICITY
16 CREDITS.—A zero-emission electricity credit may be used
17 for compliance with the requirements of section 202 for—

18 (1) the calendar year for which the zero-emis-
19 sion electricity credit is issued (in this subsection re-
20 ferred to as “the applicable calendar year”); and

21 (2)(A) any of the 5 calendar years following the
22 applicable calendar year, if the Administrator deter-
23 mines under section 202(a)(4) that the average an-
24 nual price of a zero-emission electricity credit is
25 equal to or less than the breakthrough credit price

1 for each of the 3 calendar years prior to the applica-
2 ble calendar year; or

3 (B) if the Administrator has not made the de-
4 termination under subparagraph (A)—

5 (i) any of the 5 calendar years following
6 the applicable calendar year, if the applicable
7 calendar year is any of calendar years 2023
8 through 2029;

9 (ii) any of the 4 calendar years following
10 the applicable calendar year, if the applicable
11 calendar year is any of calendar years 2030
12 through 2034;

13 (iii) any of the 3 calendar years following
14 the applicable calendar year, if the applicable
15 calendar year is any of calendar years 2035
16 through 2039; and

17 (iv) any of the 2 calendar years following
18 the applicable calendar year, if the applicable
19 calendar year is 2040 or any calendar year
20 thereafter.

21 **SEC. 204. DETERMINATION AND ISSUANCE OF QUANTITY**
22 **OF ZERO-EMISSION ELECTRICITY CREDITS.**

23 (a) **ISSUANCE OF ZERO-EMISSION ELECTRICITY**
24 **CREDITS.**—The Administrator shall issue to each gener-
25 ator a quantity of zero-emission electricity credits deter-

1 mined in accordance with this section not later than
2 March 1 of the calendar year after the calendar year for
3 which the zero-emission electricity credits are issued.

4 (b) GENERAL RULES ON CREDIT ISSUANCE.—Except
5 as otherwise provided in this section, the Administrator
6 shall issue to a generator generating zero-emission elec-
7 tricity during a calendar year a quantity of zero-emission
8 electricity credits for such generation that is equal to the
9 amount of zero-emission electricity of the generator for the
10 calendar year.

11 (c) GENERAL RULES ON DETERMINING CARBON IN-
12 TENSITY.—The Administrator shall determine the carbon
13 intensity of each generating unit of a generator. Such de-
14 termination shall be made—

15 (1) using data and methods from the Air Emis-
16 sion Measurement Center of the Environmental Pro-
17 tection Agency for emission testing and monitoring,
18 including—

19 (A) continuous emission monitoring sys-
20 tems; and

21 (B) predictive emission monitoring sys-
22 tems; and

23 (2) with respect to a determination of the car-
24 bon intensity of any generating unit using qualified
25 renewable biomass or qualified low-carbon fuel, or

1 generating qualified waste-to-energy, in consultation
2 with—

3 (A) the Secretary of Agriculture; and

4 (B) the Secretary of the Interior.

5 (d) CARBON INTENSITY FOR CERTAIN CATEGORIES
6 OF GENERATING UNITS.—

7 (1) GENERATING UNITS UTILIZING TECH-
8 NOLOGIES WITHOUT DIRECT EMISSIONS.—The Ad-
9 ministrator shall assign a carbon intensity of zero
10 for any generating unit of a generator that does not
11 produce direct emissions of any greenhouse gas in
12 generating electric energy, including any generating
13 unit that generates electric energy only through the
14 use of solar, wind, ocean, current, wave, tidal, geo-
15 thermal, nuclear energy, or hydropower technology,
16 except as provided under paragraphs (2) and (3).

17 (2) GENERATING UNITS UTILIZING TECH-
18 NOLOGIES UTILIZING FOSSIL FUELS.—

19 (A) ACCOUNTING FOR UPSTREAM GREEN-
20 HOUSE GAS EMISSIONS.—In determining the
21 carbon intensity of each generating unit using
22 coal, natural gas, or oil, the Administrator shall
23 account for—

24 (i) the direct emissions of any green-
25 house gas of the generating unit, which

1 shall not include the qualified carbon oxide
2 that is captured and safely and perma-
3 nently stored or utilized; and

4 (ii)(I) the average amounts of carbon
5 dioxide and methane emissions, in terms of
6 carbon dioxide equivalent, that occur dur-
7 ing extraction, flaring, processing, trans-
8 mission, and transportation of coal, nat-
9 ural gas, or oil that is utilized for the gen-
10 eration of electricity in the United States;
11 or

12 (II) with respect to a generator that
13 the Administrator determines under sub-
14 paragraph (B) has demonstrated that the
15 coal, natural gas, or oil consumed by such
16 generator is associated with the release of
17 smaller amounts of carbon dioxide and
18 methane emissions than the amounts de-
19 scribed in subclause (I), such smaller
20 amounts.

21 (B) DETERMINATION.—

22 (i) BEST AVAILABLE SCIENCE.—In
23 making a determination under this para-
24 graph, the Administrator shall utilize the
25 best available science, including with re-

1 spect to the measurement of low-frequency
2 high-emission events, including by using
3 data from the detection of natural gas flar-
4 ing from the satellite observations of the
5 National Oceanic and Atmospheric Admin-
6 istration.

7 (ii) ACCOUNTING FOR UPSTREAM
8 METHANE WASTE PREVENTION.—The Ad-
9 ministrator may determine that a gener-
10 ator has demonstrated that the fossil fuel
11 consumed by such generator is associated
12 with the release of smaller amounts of car-
13 bon dioxide and methane emissions than
14 the amounts described in subparagraph
15 (A)(ii)(I) if the generator—

16 (I) submits a petition for such
17 determination to the Administrator by
18 January 31 after the calendar year
19 for which such determination is
20 sought;

21 (II) accounts in the petition for
22 low-frequency, high-emission events;
23 and

24 (III) uses in the petition direct
25 measurements of the applicable facili-

1 ties, which may include measurements
2 made in the course of participation in
3 a voluntary program or public disclo-
4 sure of the quantified methane emis-
5 sion intensity of the applicable facili-
6 ties.

7 (iii) PUBLIC AVAILABILITY.—The in-
8 formation provided to the Administrator by
9 a generator to make a determination under
10 this subparagraph shall be available to the
11 public upon such determination.

12 (C) DEFINITION.—In this paragraph, the
13 term “qualified carbon oxide” has the meaning
14 given the term in section 45Q of the Internal
15 Revenue Code of 1986.

16 (D) STANDARDS.—The Administrator shall
17 promulgate the standards for measurement nec-
18 essary to implement this paragraph not later
19 than 2 years after the date of enactment of this
20 Act, and shall update such standards every 5
21 years thereafter, based on the best available
22 science and technology.

23 (3) HYDROPOWER UTILIZING A NEW RES-
24 ERVOIR.—In determining the carbon intensity of
25 each generating unit using hydropower associated

1 with a reservoir constructed after the date of enact-
2 ment of this Act, the Administrator shall account for
3 the greenhouse gas emissions that can be attributed
4 to the hydropower facility, including the applicable
5 new reservoir.

6 (e) QUANTITY OF CREDITS ISSUED FOR CERTAIN
7 CATEGORIES OF GENERATING UNITS.—

8 (1) QUALIFIED COMBINED HEAT AND POWER
9 SYSTEMS.—

10 (A) IN GENERAL.—The Administrator
11 shall issue to a generator generating zero-emis-
12 sion electricity during a calendar year using a
13 generating unit that is a qualified combined
14 heat and power system a quantity of zero-emis-
15 sion electricity credits for such generation that
16 is equal to—

17 (i) the number that represents the
18 amount of zero-emission electricity gen-
19 erated by such generating unit during such
20 calendar year; less

21 (ii) the product obtained by multi-
22 plying—

23 (I) the number of megawatt-
24 hours of electric energy generated by
25 the qualified combined heat and power

1 system that are consumed onsite dur-
2 ing such calendar year; by

3 (II) the average of the minimum
4 percentage of zero-emission electricity
5 (as defined in section 202(a)(5)) for
6 the calendar year for retail electricity
7 suppliers in the region of the gener-
8 ator, as determined by the Adminis-
9 trator.

10 (B) ADDITIONAL CREDITS.—In addition to
11 zero-emission electricity credits issued under
12 subparagraph (A), the Administrator shall issue
13 to a generator described in subparagraph (A)
14 zero-emission electricity credits for greenhouse
15 gas emissions avoided as a result of the use of
16 the applicable qualified combined heat and
17 power system, rather than a separate thermal
18 source, to meet the thermal needs of the gener-
19 ator or one or more additional entities.

20 (C) APPLICABILITY.—This paragraph shall
21 not apply with respect to a qualified combined
22 heat and power system using qualified renew-
23 able biomass.

24 (2) QUALIFIED RENEWABLE BIOMASS.—The
25 Administrator shall issue to a generator generating

1 zero-emission electricity during a calendar year
2 using qualified renewable biomass a quantity of
3 zero-emission electricity credits for such generation
4 that is equal to the product obtained by multi-
5 plying—

6 (A) the qualified electricity generation of
7 the generator that was generated using quali-
8 fied renewable biomass during such calendar
9 year; by

10 (B) the average carbon intensity of the
11 generating units of the generator that use
12 qualified renewable biomass.

13 (3) QUALIFIED WASTE-TO-ENERGY.—

14 (A) IN GENERAL.—Except as provided in
15 subparagraph (B), the Administrator shall issue
16 to a generator generating zero-emission elec-
17 tricity during a calendar year that is qualified
18 waste-to-energy a quantity of zero-emission
19 electricity credits for such generation that is
20 equal to the product obtained by multiplying—

21 (i) the qualified waste-to-energy of the
22 generator that is qualified electricity gen-
23 eration during such calendar year; by

1 (ii) the average carbon intensity of the
2 generating units of the generator used to
3 generate qualified waste-to-energy.

4 (B) EXCEPTION.—Zero-emission electricity
5 credits for zero-emission electricity that is
6 qualified waste-to-energy generated using quali-
7 fied renewable biomass shall be issued in ac-
8 cordance with paragraph (2).

9 (4) QUALIFIED LOW-CARBON FUELS.—

10 (A) IN GENERAL.—Except as provided in
11 subparagraph (C), the Administrator shall issue
12 to a generator generating zero-emission elec-
13 tricity during a calendar year using qualified
14 low-carbon fuels a quantity of zero-emission
15 electricity credits for such generation that is
16 equal to the product obtained by multiplying—

17 (i) the qualified electricity generation
18 of the generator that was generated using
19 qualified low-carbon-fuels during such cal-
20 endar year; by

21 (ii) the average carbon intensity of the
22 generating units of the generator that use
23 qualified low-carbon fuels.

24 (B) ADJUSTMENT FOR PRODUCTION.—In
25 determining the carbon intensity of each gener-

1 ating unit using a qualified low-carbon fuel, the
2 Administrator shall account for the greenhouse
3 gas emissions associated with the production of
4 such qualified low-carbon fuel.

5 (C) NO DOUBLE-COUNTING.—The Admin-
6 istrator shall not issue zero-emission electricity
7 credits for electric energy generated using a
8 qualified low-carbon fuel that is generated using
9 electric energy for which a generator is issued
10 a zero-emission electricity credit under this
11 title.

12 (5) DIRECT AIR CAPTURE OF CARBON DIOX-
13 IDE.—The Administrator shall issue to an entity
14 that captures carbon dioxide from the atmosphere,
15 and safely and permanently stores or utilizes such
16 carbon dioxide, 1 zero-emission electricity credit for
17 every 0.82 metric tons of carbon dioxide equivalent
18 that is captured and safely and permanently stored
19 or utilized.

20 (6) SPECIAL RULES.—

21 (A) REGULATIONS.—Subject to subpara-
22 graph (B), not later than 1 year after the date
23 of enactment of this Act, for purposes of
24 issuing zero-emission electricity credits under

1 this section, the Administrator shall promulgate
2 regulations establishing—

3 (i) the conditions under which carbon
4 dioxide may be safely and permanently
5 stored;

6 (ii) the methods and processes by
7 which carbon dioxide may be utilized in a
8 manner that ensures the removal of the
9 carbon dioxide safely and permanently
10 from the atmosphere, including utilization
11 in the production of substances, such as
12 plastics and chemicals; and

13 (iii) requirements to account for the
14 risk that some fraction of the carbon diox-
15 ide intended to be permanently stored or
16 utilized may nevertheless be emitted into
17 the atmosphere.

18 (B) EXISTING REQUIREMENTS.—In pro-
19 mulgating regulations pursuant to this para-
20 graph, the Administrator shall incorporate any
21 existing requirements for the permanent geo-
22 logic storage of carbon dioxide, including any
23 requirements promulgated under section 45Q of
24 the Internal Revenue Code of 1986.

1 (f) MAXIMUM QUANTITY OF CREDITS.—Except as
2 provided under subsection (e)(1), the total quantity of
3 zero-emission electricity credits issued under this section
4 to a generator for a calendar year shall not exceed the
5 number of megawatt-hours of the qualified electricity gen-
6 eration of the generator for the calendar year.

7 (g) NO NEGATIVE CREDITS.—Notwithstanding any
8 other provision of this title, the Administrator shall not
9 issue a negative quantity of zero-emission electricity cred-
10 its to any generator.

11 (h) FACILITIES OUTSIDE THE UNITED STATES.—
12 With respect to electricity generated by a facility or gener-
13 ating unit that is located outside of the United States,
14 a zero-emission electricity credit may be issued only with
15 respect to electricity that is sold for resale in the United
16 States.

17 (i) CONTRACTS.—A zero-emission electricity credit
18 issued for electricity that is—

19 (1) sold for resale under a contract in effect on
20 the date of enactment of this title shall be issued to
21 the purchasing retail electricity supplier in propor-
22 tion to the zero-emission electricity purchased by
23 such retail electricity supplier under the contract,
24 unless otherwise provided by the contract; and

1 (2) sold for resale under a contract in which a
2 generating unit is not specified, shall be issued to
3 the purchasing retail electricity supplier in propor-
4 tion to the ratio of zero-emission electricity genera-
5 tion from the generator making such sale for resale.

6 (j) FEDERAL POWER MARKETING ADMINISTRA-
7 TION.—A zero-emission electricity credit issued for elec-
8 tricity that is generated by a Federal Power Marketing
9 Administration shall be transferred to the retail electricity
10 supplier that is purchasing the electricity.

11 (k) RECIPIENTS OF ACCELERATION INVESTMENT
12 CREDITS.—A qualified zero-emission electricity taxpayer
13 that receives a zero-emission electricity acceleration invest-
14 ment credit for a calendar year under section 45V of the
15 Internal Revenue Code of 1986, as added by section 301
16 of this Act, shall not be issued any zero-emission elec-
17 tricity credits under this section for such calendar year
18 or any calendar year thereafter.

19 (l) RECIPIENTS OF ACCELERATION GRANTS.—An eli-
20 gible electricity provider that receives a grant during a cal-
21 endar year under section 302 of this Act shall not be
22 issued any zero-emission electricity credits under this sec-
23 tion for such calendar year or any calendar year there-
24 after.

1 **SEC. 205. CARBON MITIGATION FUND.**

2 (a) CARBON MITIGATION FUND.—

3 (1) CREATION OF FUND.—There is hereby es-
4 tablished a trust fund, to be known as the “Carbon
5 Mitigation Fund”, consisting of such amounts as
6 may be appropriated to such fund as provided in
7 this section.

8 (2) ADMINISTRATION.—The Carbon Mitigation
9 Fund shall be administered by the Administrator.

10 (3) TRANSFERS TO TRUST FUND.—There are
11 hereby appropriated to the Carbon Mitigation Fund
12 each year amounts equal to the sum of the amounts
13 that are—

14 (A) attributable to alternative compliance
15 payments made pursuant to section 202;

16 (B) equal to the alternative compliance
17 payments that would have been made by any
18 petitioners under section 202 but for a deter-
19 mination of inadequate availability of tech-
20 nology made by the Administrator under section
21 202(d); and

22 (C) collected as a civil penalty under sec-
23 tion 209.

24 (4) EXPENDITURES.—Amounts in the Carbon
25 Mitigation Fund shall be available without further

1 appropriation or fiscal year limitation to carry out
2 the program under subsection (b).

3 (b) PROGRAM.—

4 (1) IN GENERAL.—The Administrator shall
5 carry out a program to award funds to entities to
6 carry out activities in States that avoid emissions of
7 greenhouse gases or remove carbon dioxide from the
8 atmosphere.

9 (2) ACTIVITIES.—Activities for which the Ad-
10 ministrator may award funds under the program
11 carried out pursuant to this subsection include—

12 (A) improvements to the energy efficiency
13 of existing facilities and devices;

14 (B) improvements to the electrical grid;

15 (C) the replacement of natural gas space
16 heaters, natural gas water heaters, and natural
17 gas stoves, with electric appliances;

18 (D) the replacement of fossil fuel-powered
19 vehicles owned by State and local agencies with
20 electric vehicles or other low-carbon fuel vehi-
21 cles;

22 (E) the replacement of fossil fuel-powered
23 ground airport and seaport vehicles with electric
24 vehicles or other low-carbon fuel vehicles;

1 (F) installation of fast charging stations
2 for electric vehicles along highways and other
3 public roads in urban areas and rural areas;

4 (G) beneficial electrification-related reduc-
5 tions not otherwise identified in this paragraph;

6 (H) activities that capture carbon dioxide
7 from the atmosphere and safely and perma-
8 nently store or utilize such carbon dioxide in ac-
9 cordance with section 204(e)(6); and

10 (I) any activity that is endorsed by a gen-
11 erator or a retail electricity supplier that results
12 in a net reduction of emissions of greenhouse
13 gases.

14 (3) EXCLUSIONS.—The Administrator may not
15 award funds to an entity under the program carried
16 out pursuant to this subsection for any activity for
17 which the entity—

18 (A) has been issued a zero-emission elec-
19 tricity credit; or

20 (B) received a deduction of megawatt-
21 hours under section 202(a)(3)(B) to account for
22 beneficial electrification-related reductions.

23 (4) CRITERIA.—The Administrator may only
24 award funds under the program carried out pursu-

1 ant to this subsection for an activity for which the
2 Administrator determines that—

3 (A) the amount of carbon dioxide emis-
4 sions avoided or removed from the atmosphere
5 by the activity will be adequately confirmed
6 through monitoring, reporting, and verification;

7 (B) the risk that some amount of the car-
8 bon dioxide that is removed from the atmos-
9 phere by the activity may reenter the atmos-
10 phere at a later date is adequately reflected
11 through a discounting of the amount described
12 in paragraph (5)(C)(ii);

13 (C) the risk that some amount of the
14 greenhouse gases, the emission of which is
15 avoided by the activity, may enter the atmos-
16 phere at a later date is adequately reflected
17 through a discounting of the amount described
18 in paragraph (5)(C)(i);

19 (D) the risk that the activity may directly
20 or indirectly increase the release of greenhouse
21 gases from another location has been ade-
22 quately addressed;

23 (E) the activity is not required, or being
24 fully supported financially by, a Federal, State,
25 or local law, program, or activity; and

1 (F) if the activity involves land use, the ac-
2 tivity—

3 (i) aligns with the Sustainable Devel-
4 opment Goals of the United Nations, in-
5 cluding being consistent with the conserva-
6 tion of biological diversity and natural eco-
7 systems (including forests and grasslands);
8 and

9 (ii) maintains ecosystem services and
10 other social and environmental benefits.

11 (5) PROPOSALS.—In order to qualify for an
12 award of funds under this subsection, an entity shall
13 submit to the Administrator a proposal that—

14 (A) describes the activity to be carried out
15 with the award of funds;

16 (B) identifies the amount of money for
17 which the entity is applying;

18 (C) identifies the amount, to be measured
19 in one-year increments, of—

20 (i) greenhouse gas emissions to be
21 avoided by the activity, measured in terms
22 of carbon dioxide equivalent; and

23 (ii) carbon dioxide to be removed from
24 the atmosphere by the activity, measured
25 in metric tons;

1 (D) identifies the bid amount, expressed as
2 dollars per metric ton, which shall be the
3 quotient obtained by dividing the amount iden-
4 tified under subparagraph (B) by the total
5 amount identified under subparagraph (C);

6 (E) provides any information required by
7 the Administrator in order to make a deter-
8 mination described in paragraph (4); and

9 (F) provides any other certifications the
10 Administrator determines appropriate.

11 (6) DEADLINES.—

12 (A) PROMULGATION.—Not later than Jan-
13 uary 1, 2024, the Administrator shall promul-
14 gate regulations to implement this section, in-
15 cluding specifying the information required to
16 be included in proposals under paragraph (5).

17 (B) SOLICITATION.—Not later than Feb-
18 ruary 1, 2024, and each February 1 thereafter,
19 the Administrator shall solicit proposals for ac-
20 tivities described in paragraph (1) for which the
21 Administrator may award funds under the pro-
22 gram carried out pursuant to this subsection.

23 (C) IDENTIFICATION.—Not later than
24 June 1, 2024, and each June 1 thereafter, the
25 Administrator shall identify proposals that have

1 been submitted by March 1 of such calendar
2 year for activities described in paragraph (1)
3 that qualify for an award of funds under the
4 program carried out pursuant to this sub-
5 section.

6 (D) AWARD OF FUNDS.—Not later than
7 August 1, 2024, and each August 1 thereafter,
8 the Administrator shall award to entities funds
9 available in the Carbon Mitigation Fund estab-
10 lished subsection (a) for activities described in
11 proposals identified under subparagraph (C).

12 (7) AWARDS TO MOST COST-EFFECTIVE ACTIVI-
13 TIES.—The Administrator shall award funds to enti-
14 ties for activities described in proposals identified
15 under paragraph (6)(C)—

16 (A) beginning by awarding funds to the
17 entity submitting such a proposal with the low-
18 est bid amount identified pursuant to para-
19 graph (5)(D); and

20 (B) then awarding funds to entities se-
21 quentially by entity submitting such a proposal
22 with the next lowest bid amount so identified
23 until all funds are awarded.

24 (c) CONSULTATION.—The Administrator shall con-
25 sult with the Secretary of the Interior and the Secretary

1 of Agriculture in promulgating regulations to measure,
2 monitor, and verify any natural sequestration activities
3 awarded under this section.

4 **SEC. 206. STATE PROGRAMS.**

5 (a) SAVINGS PROVISION.—

6 (1) IN GENERAL.—Except as provided in para-
7 graph (2) and subject to subsection (b), nothing in
8 this title affects the authority of a State or a polit-
9 ical subdivision of a State to adopt or enforce any
10 law or regulation relating to—

11 (A) clean energy or renewable energy;

12 (B) the regulation of a retail electricity
13 supplier; or

14 (C) greenhouse gas emissions reduction.

15 (2) FEDERAL LAW.—Except as otherwise pro-
16 vided in this section, no law or regulation of a State
17 or a political subdivision of a State may relieve a re-
18 tail electricity supplier from compliance with an ap-
19 plicable requirement of this title.

20 (b) COORDINATION.—The Administrator, in con-
21 sultation with States that have State clean energy pro-
22 grams in effect, shall facilitate, to the maximum extent
23 practicable, coordination between the implementation of
24 this title and the relevant State clean energy program.

25 (c) QUALIFIED STATES.—

1 (1) DETERMINATION.—

2 (A) IN GENERAL.—The Administrator, in
3 consultation with States that have State clean
4 energy programs in effect, shall determine
5 whether each such State is a qualified State.

6 (B) DEADLINES.—The Administrator shall
7 make a determination under subparagraph
8 (A)—

9 (i) not later than January 1, 2022,
10 with respect to a State that has a State
11 clean energy program in effect on the date
12 of enactment of this Act, and every 5 years
13 thereafter; and

14 (ii) not later than 6 months after the
15 date of the enactment by a State, after the
16 date of enactment of this Act, of a new or
17 modified existing State clean energy pro-
18 gram, and every 5 years thereafter.

19 (C) PERIOD.—A determination under this
20 paragraph shall be effective until the earlier
21 of—

22 (i) the date that is 5 years after the
23 date of the determination; or

24 (ii) the date on which the Adminis-
25 trator makes a subsequent determination

1 under this paragraph with respect to the
2 applicable State.

3 (2) COMPLIANCE.—If the Administrator deter-
4 mines, under paragraph (1), that a State is a quali-
5 fied State, a retail electricity supplier that is subject
6 to and in compliance with the State clean energy
7 program of such qualified State shall be deemed to
8 be in compliance with the requirements of this title
9 for the period during which the determination is ef-
10 fective.

11 (3) PROHIBITION AGAINST DOUBLE-COUNT-
12 ING.—The Administrator, in consultation with
13 States, shall develop a protocol to ensure that a
14 zero-emission electricity credit may not be issued
15 under this title with respect to an amount of electric
16 energy for which one or more State clean energy
17 credits are issued under, and used for compliance
18 with, a State clean energy program in a qualified
19 State.

20 (d) QUALIFIED ELECTRICITY GENERATION ELIGI-
21 BLE IN BOTH STATE AND FEDERAL PROGRAMS.—

22 (1) ISSUANCE OF CREDIT.—In a State that is
23 not a qualified State, 1 megawatt-hour of zero-emis-
24 sion electricity is eligible to be issued both a State

1 clean energy credit and a zero-emission electricity
2 credit pursuant to this title.

3 (2) RETIREMENT OF STATE CREDITS.—Retire-
4 ment of a State clean energy credit for compliance
5 with a State law in a State that is not a qualified
6 State shall not prevent a retail electricity supplier
7 from submitting a zero-emission electricity credit
8 issued for the same megawatt-hour of zero-emission
9 electricity for compliance with this title.

10 (3) SUBMISSION OF FEDERAL CREDITS.—Sub-
11 mission of a zero-emission electricity credit for com-
12 pliance with this title shall not prevent a retail elec-
13 tricity supplier from retiring a State clean energy
14 credit issued for the same megawatt-hour of quali-
15 fied electricity generation for compliance with a
16 State law.

17 (e) DEFINITIONS.—In this section:

18 (1) QUALIFIED STATE.—The term “qualified
19 State” means a State—

20 (A) that has a State clean energy program;

21 and

22 (B) in which the retail electricity suppliers
23 in the State, in the aggregate, sell—

24 (i) a quantity of zero-emission elec-
25 tricity that is greater than the quantity of

1 zero-emission electricity represented by the
2 zero-emission electricity credits the retail
3 electricity suppliers, in the aggregate,
4 would otherwise be required to submit
5 under section 202; or

6 (ii) of the total amount of electric en-
7 ergy sold in the State, a percentage of
8 zero-emission electricity that is greater
9 than the average minimum percentage of
10 zero-emission electricity required for all re-
11 tail electricity suppliers under section 202.

12 (2) STATE CLEAN ENERGY CREDIT.—The term
13 “State clean energy credit” means a certificate cor-
14 responding to the electricity generated from renew-
15 able or other zero-emission electricity sources that is
16 issued under a law enacted by a State.

17 (3) STATE CLEAN ENERGY PROGRAM.—The
18 term “State clean energy program” means one or
19 more State requirements, including laws and regula-
20 tions—

21 (A) under which retail electricity suppliers
22 in the State are required to sell—

23 (i) a quantity of zero-emission elec-
24 tricity; or

1 (ii) of the total amount of electric en-
2 ergy sold in the State, a percentage of
3 zero-emission electricity; and

4 (B) for which there are compliance mecha-
5 nisms, including the imposition of penalties,
6 that are at least as effective in enforcing com-
7 pliance with such requirements as the system of
8 enforcement under this title.

9 **SEC. 207. REPORT TO CONGRESS.**

10 Not later than January 1, 2035, the Administrator
11 shall submit to Congress a report with an evaluation and
12 a forecast of the remaining barriers to achieving genera-
13 tion of electric energy with no emissions of greenhouse
14 gases.

15 **SEC. 208. INFORMATION COLLECTION.**

16 The Administrator may require any retail electricity
17 supplier, generator, or other entity that the Administrator
18 determines appropriate, to submit to the Administrator
19 any information the Administrator determines to be ap-
20 propriate to carry out this title.

21 **SEC. 209. CIVIL PENALTIES.**

22 (a) IN GENERAL.—Subject to subsection (b)—

23 (1) a retail electricity supplier that fails to meet
24 the requirements of section 202 shall be subject to

1 a civil penalty in an amount equal to the product ob-
2 tained by multiplying—

3 (A) the aggregate quantity of zero-emis-
4 sion electricity credits that the retail electricity
5 supplier failed to submit for the calendar year
6 to comply with section 202; by

7 (B) 300 percent of the amount of alter-
8 native compliance payment for the calendar
9 year, as determined under section 202(a)(6);
10 and

11 (2) an entity required to submit information
12 pursuant to section 208 that violates such section by
13 failing to submit the information, or submitting false
14 or misleading information, shall be subject to a civil
15 penalty of \$25,000 for each day during which such
16 violation continues.

17 (b) WAIVERS AND MITIGATION.—

18 (1) FORCE MAJEURE.—The Administrator may
19 mitigate or waive a civil penalty under subsection (a)
20 if the applicable retail electricity supplier or other
21 entity was unable to comply with an applicable re-
22 quirement for reasons outside of the reasonable con-
23 trol of the retail electricity supplier or other entity.

24 (2) REDUCTION FOR STATE PENALTIES.—The
25 Administrator shall reduce the amount of a penalty

1 determined under subsection (a) by the amount paid
2 by the applicable retail electricity supplier to a State
3 for failure to comply with the requirement of a State
4 renewable energy program, if the Administrator de-
5 termines that the State requirement is more strin-
6 gent than the applicable requirement of this title.

7 **SEC. 210. REGULATIONS.**

8 (a) DEADLINE.—Except as otherwise provided in this
9 title, not later than 2 years after the date of enactment
10 of this title, the Administrator shall promulgate regula-
11 tions to implement this title.

12 (b) CONSULTATION.—The Administrator shall con-
13 sult with the Secretary of Energy in promulgating regula-
14 tions under this title.

15 **Subtitle B—Methane Regulation**

16 **SEC. 211. METHANE REGULATION.**

17 (a) NATIONAL GOAL.—The goal of this section is to
18 reduce steadily the quantity of United States methane
19 emissions from the oil and natural gas sector such that
20 the quantity of methane emissions in calendar year 2030
21 from the oil and natural gas sector is at least 90 percent
22 below the quantity of methane emissions in calendar year
23 2012 from such sector.

24 (b) EXISTING AUTHORITY.—Using existing authority
25 of the Environmental Protection Agency, the Adminis-

1 trator shall issue regulations pursuant to section 111 of
2 the Clean Air Act (42 U.S.C. 7411) to control methane
3 emissions from the oil and natural gas sector to achieve
4 the national goal established in subsection (a).

5 (c) COVERED SOURCES.—The regulations promul-
6 gated pursuant to this section shall apply to sources of
7 methane from every segment of oil and natural gas sys-
8 tems, including oil and natural gas production, processing,
9 transmission, distribution, and storage.

10 (d) REGULATIONS TO MEET THE NATIONAL
11 GOAL.—

12 (1) DEADLINE.—Not later than December 31,
13 2023, the Administrator shall promulgate final regu-
14 lations under section 111 of the Clean Air Act (42
15 U.S.C. 7411) to achieve the national goal established
16 in subsection (a).

17 (2) CONTENTS.—The regulations required by
18 paragraph (1) shall provide for the establishment,
19 implementation, and enforcement of standards of
20 performance for new sources and existing sources,
21 and guidelines for States, that include requirements
22 for—

23 (A) new and existing natural gas trans-
24 mission and distribution pipelines to reduce

1 methane emissions by application of the best
2 system of venting and leakage reduction;

3 (B) new sources, and existing sources, with
4 equipment that handles liquefied natural gas to
5 reduce methane emissions from that equipment
6 by application of the best system of emission re-
7 duction; and

8 (C) new and existing offshore petroleum
9 and natural gas production facilities to reduce
10 methane emissions by application of the best
11 system of emission reduction.

12 (e) DEFINITIONS.—In this section:

13 (1) ADMINISTRATOR.—The term “Adminis-
14 trator” means the Administrator of the Environ-
15 mental Protection Agency.

16 (2) EXISTING SOURCE; NEW SOURCE; STAND-
17 ARD OF PERFORMANCE.—The terms “existing
18 source”, “new source”, and “standard of perform-
19 ance”, have the meaning given such terms in section
20 111(a) of the Clean Air Act (42 U.S.C. 7411(a)).